

INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

For The

11022-11044 Garvey, Mixed Use Project

Prepared for:

City of El Monte
1133 Valley Boulevard
El Monte, CA 91731-3293

Prepared by:

Tetra Tech, Inc.
17885 Von Karman Avenue, Suite 500
Irvine, CA 92614-6213

November 2014

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Environmental Checklist Form

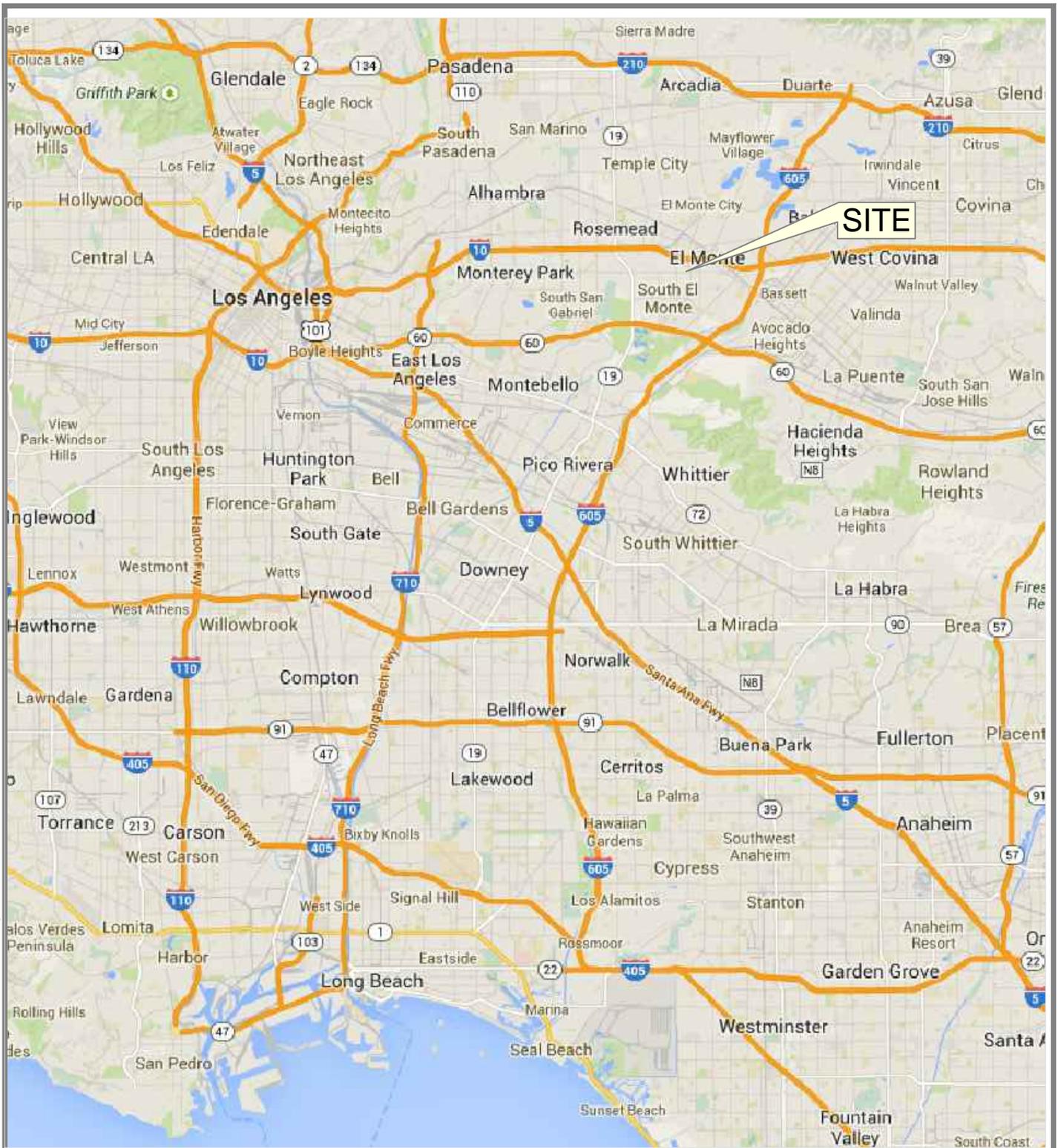
PROJECT INFORMATION	
1. Project Title:	11022-11044 Garvey, Mixed Use Project
2. Lead Agency Name & Address:	City of El Monte 1133 Valley Boulevard El Monte, California 91731-3293
3. Contact Person & Phone Number:	Shannon Kimball, Associate City Planner (626) 580-2152
4. Project Location:	11022 – 11048 Garvey Avenue El Monte, California 91733 APNS: 8105-001-049, 050
5. Project Sponsor’s Name and Address:	City Ventures Joe Oftelie 1900 Quail Street Newport Beach, CA 92660
6. General Plan Designation:	Mixed/Multi Use
7. Zoning:	MMU (Mixed-Multi Use)

8. Project Description and Location:

The proposed project involves the construction and operation of an approximately 3.5-acre mixed-use Project at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, California (the “Project”). The Project would consist of 70 townhomes. Of the 70 units, 67 units would be townhomes and 3 of these units are proposed as live/work space. Approximately 1,286 square feet of office space will be included as part of the live/work units and a small retail commercial building, consisting of 2,154 square feet of floor area, will be constructed on the corner of Garvey Avenue and Tyler Avenue. Additionally, 25,721 square feet of common open space and 11,266 square feet of private open space are proposed.

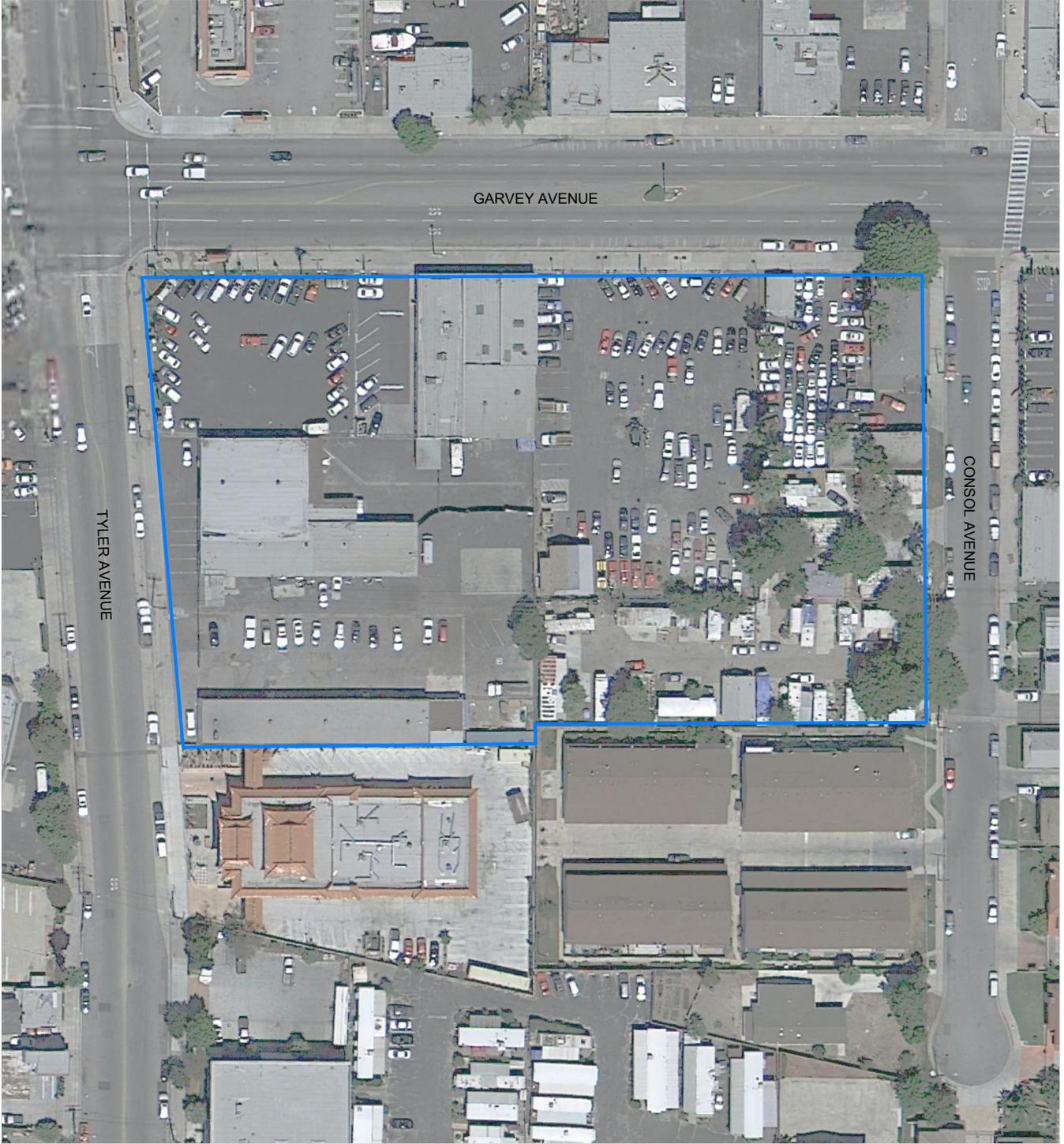
The proposed Project would not be gated and the common open space could be accessible to the public. The Project also includes 175 residential parking spaces and 9 commercial/office parking spaces. Figure 1 shows the regional location map for the proposed Project, while Figure 2 shows the Project vicinity map. Figure 3 depicts the preliminary site plan for the Project.

P:\15106-City Ventures - El Monte\CAD\FIGURE 1 REGIONAL MAP.dwg Sep 08, 2014 - 2:47pm rick.ikemoto

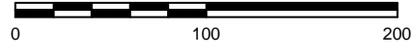


SOURCE: GOOGLE MAPS; 2014

CITY VENTURES - EL MONTE				
SITE REGIONAL MAP				
11022 TYLER AVENUE			EL MONTE, CA	
		PREPARED BY: TETRA TECH, INC. 17885 VON KARMAN AVENUE, SUITE, 500 IRVINE, CA 92614-6213 Phone (949) 809-5000 Fax (949) 809-5004		
		PROJECT NUMBER	APPROVED BY	DRAWN BY
194-5106	MC	WRI	SEP 2014	FIGURE 1



APPROXIMATE SCALE IN FEET



LEGEND

— SITE BOUNDARY (APPROXIMATE)

CITY VENTURES - EL MONTE SITE VICINITY MAP				
11022 TYLER AVENUE			EL MONTE, CA	
		PREPARED BY: TETRA TECH, INC. 17885 VON KARMAN AVENUE, SUITE, 500 IRVINE, CA 92614-6213 Phone (949) 809-5000 Fax (949) 809-5004		
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
194-5106	MC	WRI	SEP 2014	2

P:\5106-City Ventures - El Monte\CAD\figure 3 - site plan - jd.dwg Sep 09, 2014 - 10:22am Julie.Delaney

- Typical
Live/Work - Building 500
- 3 Stories
 - Retail / Work Space 1st Floor
 - (1) Plan 1: + 1,659 S.F., 2 Bdrm., 3.5 Ba.
 - (2) Plan 2: + 1,678 S.F., 3 Bdrm., 3.5 Ba.

- Typical
Rowtown Homes - Building 200
- 3 Stories
 - 2 Car Garage
 - (4) Plan 1: 1,034 S.F., 2 Bdrm., 2.5 Ba.
 - (3) Plan 2: 1,466 S.F., 2 Bdrm., 2.5 Ba.
 - (2) Plan 3: 1,750 S.F., 2 Bdrm., 2.5 Ba.

- Typical
Rowtown Homes - Building 300
- 3 Stories
 - 2 Car Garage
 - Roof Decks
 - (4) Plan 2s: 1,466 S.F., 2 Bdrm., 2.5 Ba.
 - (2) Plan 3s: 1,850 S.F., 2 Bdrm., 2.5 Ba.
 - (1) Plan 4s: 1,850 S.F., 4 Bdrm., 4 Ba.
 - (1) Plan 5s: 2,068 S.F., 4 Bdrm., 3.5 Ba.

- Typical
Commercial - Building 600
- 1 Story
 - + 2,154 S.F. Retail Space

LEGEND

--- SITE BOUNDARY (APPROXIMATE)

Project Summary

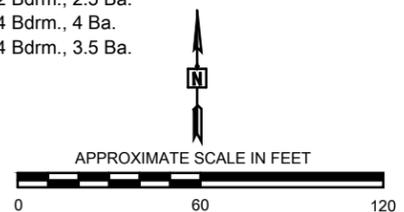
Total Site Area: ± 3.49 Acres
 Retail: ± 0.19 Acres
 Residential: ± 3.30 Acres
 Total Homes: 70 Homes
 • Rowtown: 67 Homes
 • Live/Work: 3 Homes
 ± 2,154 S.F. Retail
 Net Density: 21.3 Homes per Acre
 Proposed Zoning: Mixed Multi-Use Zone
 Parking:
 Required: 188 Spaces Total
 Residential: 175 Spaces (2.5 sp/home)
 • (53) 2 Bedroom (2.0 sp/home): 106 Spaces
 • (17) 4 Bedroom (3.0 sp/home): 51 Spaces
 • Guest (0.25 sp/home): 18 Spaces
 Non-Residential: 13 Spaces (1 sp/265 S.F.)
 • 2,154 S.F. Retail @ 1 sp/250 S.F.: 9 Spaces
 • 1,286 S.F. Work @ 1 sp/350 S.F.: 4 Spaces
 Provided: 211 Spaces Total
 • Garage (44% Tandem): 140 Spaces
 • Driveway (16' x 23'): 4 Spaces
 • Head In Residential (9' x 18'): 29 Spaces
 • Head In Retail (9' x 18'): 6 Spaces
 • On Street Parallel (8' x 22'): 32 Spaces
 Electric Vehicle Charging Stations (EV): 2 provided
 Open Space: ± 36,987 S.F. (24% of site)
 • Common: ± 25,721 S.F.
 • Private: ± 11,266 S.F.

* ADA Units

- Typical
Rowtown Homes - Building 100
- 3 Stories
 - 2 Car Garage
 - (4) Plan 2: 1,466 S.F., 2 Bdrm., 2.5 Ba.
 - (1) Plan 3: 1,750 S.F., 2 Bdrm., 2.5 Ba.
 - (1) Plan 4: 1,750 S.F., 4 Bdrm., 4 Ba.
 - (2) Plan 5: 1,990 S.F., 4 Bdrm., 3.5 Ba.



- Typical
Rowtown Homes - Building 400
- 3 Stories
 - 2 Car Garage
 - (5) Plan 2: 1,466 S.F., 2 Bdrm., 2.5 Ba.
 - (1) Plan 3: 1,750 S.F., 2 Bdrm., 2.5 Ba.
 - (1) Plan 4: 1,750 S.F., 4 Bdrm., 4 Ba.
 - (2) Plan 5: 1,990 S.F., 4 Bdrm., 3.5 Ba.



NOTES:
 1. FIGURE ASSEMBLED BY TETRA TECH, INC. FROM CONCEPTUAL SITE PLAN PREPARED BY WILLIAM HEZMALHALCH ARCHITECTS INC. DATED JULY 11, 2014.

CITY VENTURES - EL MONTE
PRELIMINARY SITE PLAN
 11022 TYLER AVENUE EL MONTE, CA
 FIGURE PREPARED BY:
TETRA TECH, INC.
 17885 VON KARMAN AVENUE, SUITE 500
 IRVINE, CA 92614-6213
 Phone (949) 809-5000 Fax (949) 809-5004

PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
194-5106	MC	WRI	SEP 2014	3

Environmental Setting

The proposed Project site is located on a previously developed site in El Monte, Los Angeles County, California. The Project site currently consists of 3.5 acres of land located at the southeast corner of Tyler Avenue and Garvey Avenue. The site is currently used for several active business operations, including automobile sales, auto body repair, flooring and computer sales, and auto repair. In addition, a small portion of the southeastern area of the Site is utilized as a trailer park. Several vacant spaces are presently located off of Garvey Avenue.

Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue in the City of El Monte, County of Los Angeles, California (Site). The Project site Assessor Parcel Numbers (APNs) are 8105-001-049 and -050. Please refer to Figures 2 and 3 for the location of the Project site.

The surrounding area consists of Tyler Avenue, automobile sales and repair, and commercial buildings to the west. Garvey Avenue, a restaurant, retail and repair shops are located to the north of the Project; Consol Avenue, a motel, and residences are located to the east of the Project; and residential properties and a church/temple (Hai Nam Association) are located to the south of the Project. Please see Figure 2 for an aerial representation of the Project site. The I-10 is located north of the Project and the Project is approximately 1.8 miles west of the I-605, 1.7 miles north of SR-60, and 7.4 miles east of the I-710.

The Project consists of two parcels of land occupied by eight separate operations as described below (Stantec 2013):

2818 Tyler Avenue – Automotive Body & Paint. This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and predominantly consists of service bays for automotive repair services. It is an operating business as of the date of this draft IS/MND.

A shed at the eastern end of the building containing tires, auto parts, and other materials is located at this address.

2880 Tyler Avenue – SP Flooring Cabinet Inc. This business consists of one warehouse structure. The warehouse is used for storage and is a showroom for flooring materials such as tile and wood. It is an operating business as of the date of this draft IS/MND

11022 Garvey Avenue – Best Deals Auto Center. A car sales lot is located on the southeast corner of Garvey and Tyler Avenue. This address contains a car lot and a parking lot. The car lot contains a display area for vehicles being sold and a small office in a building that fronts Garvey Avenue. No repair activities occur at this address. It is an operating business as of the date of this draft IS/MND.

Two other tenant spaces are located east of the car sales office, one of which is vacant and the other of which appears to be a former clothing retailer.

11048-11068 Garvey Avenue – Oceansky Auto Used Cars, El Baratisimo Auto Sales, Inc., E-Z Electronics, and 8 Brothers Auto Repair. This parcel consists of two used car sales lots,

a computer or electronic store, and an automobile repair shop. These are operating business as of the date of this draft IS/MND.

The Oceansky Auto Used Cars lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. The El Baratisimo Auto Sales, Inc. car lot is located adjacent to the east of the previous lot. A small office is located along Garvey Avenue and no repair activities appear to take place at the lot.

The E-Z Electronics computer store is located in a structure on the southwest corner of Garvey and Consol Avenues. The computer store occupies the northern portion of the structure and the southern portion is occupied by the repair shop described below.

The 8 Brothers Auto Repair Shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building.

2736 and 2751 Consol Avenue – Wheeler’s Trailer Park (the “Park”). A trailer park containing various trailers and vehicles is located south of the repair shop. There are approximately 21 units, seven of them being actual mobile homes, 13 mobile RV trailers, and one house at this location. The specific age of the homes in the Park is unknown at this time, although the current Park owner, who is also the owner of 20 of the 21 units, states the units are more than 40 years old.

Required Approvals

The City of El Monte is the lead agency for this project and requires that the following approvals be obtained for the proposed Project:

- **Conditional Use Permit (CUP).** A CUP is required to develop over three (3) units and to establish the multi-tenant retail building.
- **Tentative Tract Map.** This entitlement is needed for the provision of for-sale residential and multi-tenant retail components of the project
- **Modifications.** This entitlement would allow certain design features that do not meet applicable code requirements (such as housing density for the proposed Project) to be incorporated into the Project.
- **Design Review and Modification.** This entitlement would allow certain design features, such as setbacks and modifications in the square footage for the open space component of the proposed Project, to be incorporated.
- Master Sign Program

The Applicant shall secure a Master Sign Program for the site prior to the completion of the project. Incidental monument, tenant, pedestrian, and parking signs and lighting could be constructed as part of the Project. The following summarizes the types of signs permitted under the guidelines and regulations regarding sign height and area. The types of signage that may be incorporated in the project design will be determined at a later date through the submittal of a Master Sign Program submittal. The types of signs that may be allowed are described below, as described in the City’s General Plan.

Building Wall Sign: A sign attached to, painted on, or erected against the wall and/or parapet of a building or structure, with the exposed face of the sign on a plane approximately parallel to the plane of the wall.

Digital Wall Sign (Electronic): A sign which consists of digitally produced messages or images generally large in scale, which is applied to and made integral with a wall, projected onto a wall, illuminated by LED, or other pixilated lighting where permitted.

Ground Monument Sign (Project Identification): A sign that is free-standing, mounted to the ground that does not use columns, poles, or uprights as its primary, visual structural support, and whose sign copy is limited to the name, address, and/or identifying symbol of the project, and is located within the boundaries of the Specific Plan Area.

Ground Monument Sign (Tenant Identification): A sign that is free-standing, mounted to the ground that does not use columns, poles, or uprights as its primary, visual structural support, and whose sign copy is limited to a tenant's name or identifying symbol, and is located within the boundaries of the Specific Plan Area.

Pylon Sign (Electronic): A ground-mounted sign that displays messages or images utilizing a series or grid of lights that may be changed by electronic means, including cathode ray, light emitting diode (LED) display, plasma screen, liquid crystal display (LCD), fiber optic, or other electronic media or technology.

Pylon Sign (Non-electronic): A ground-mounted sign used for advertising purposes and whose copy or message may be changed from time to time.

On-site Sign: A sign which identifies or promotes a facility, use, business, product, service, profession, commodity, activity, exhibition, display, promotion, presentation, event, person, institution, or sponsor of any of the foregoing, which is conducted, sold, manufactured, produced, exhibited, displayed, promoted, presented, broadcasted, televised, offered or occurring within this Specific Plan Area, including any incidental facility, use, business, product, service, profession, commodity, activity, exhibition, display, promotion, presentation, event, person, or institution.

Off-site Sign: A sign which identifies or promotes a facility, use, business, product, service, profession, commodity, activity, exhibition, display, promotion, presentation, event, person, institution, or sponsor of any of the foregoing, which is not conducted, sold, manufactured, produced, exhibited, displayed, promoted, presented, broadcasted, televised, offered or occurring within this Specific Plan Area, including any incidental facility, use, business, product, service, profession, commodity, activity, exhibition, display, promotion, presentation, event, person, or institution.

Pageantry Signs: A sign consisting of fabric or metal that is typically attached to light poles and building facades, and displays the project's name, the identifying symbol of the project, and/or seasonal and special event graphics.

Retail Theme Signage: A sign consisting of fabric or metal that is typically attached to light poles and building facades.

Retail Theme Signage: A sign consisting of fabric or metal that is typically attached to light poles and displays the tenant's name, project's name, and/or the identifying symbol of the project or tenants.

Landscape Plan Review

The proposed Project includes landscaping throughout the Project site including landscaping and trees along the perimeter of the project site. Residential open space is required pursuant to the proposed Specific Plan at a minimum of 125 square feet per unit. The minimum required residential open space is required as common open space (67 percent). Existing street trees and other landscaping in the public right-of-way shall be removed and replaced. Some modifications (changes to setbacks, etc.), as mentioned above, may be required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this proposed Project (i.e., the proposed Project would involve at least one impact that is a “potentially significant impact”), as indicated by the checklist on the following pages.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input checked="" type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

Determination

On the basis of this initial evaluation:

I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the proposed Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed Project MAY have an impact on the environment that is “potentially significant” or “potentially significant unless mitigated” but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Prepared By:	Date
--------------	------

Lead Agency Signature:	Date
------------------------	------

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “no impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “no impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “no impact” answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
 2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
 3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially significant impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “potentially significant impact” entries when the determination is made, an EIR is required.
 4. “Negative declaration: less than significant with mitigation incorporated” applies when the incorporation of mitigation measures has reduced an effect from a “potentially significant impact” to a “less than significant impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
 5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:
 - a. Earlier analysis used. Identify and state where earlier analyses are available for review.
 - b. Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation measures. For effects that are “less than significant with mitigation incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- For purposes of this Initial Study, the City’s General Plan and Zoning Code Update Final EIR (May 2011) is hereby incorporated by reference.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
 7. Supporting information sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question, and
 - b. The mitigation measure identified, if any, to reduce the impact to a less than significant level.
10. The proposed Project includes compliance with applicable local, regional, state, and federal laws, regulations, and rules.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:					
a.	Have a substantial adverse effect on a scenic vista?			X	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?			X	
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Discussion:

a. Would the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. There are few scenic vistas within the City of El Monte. Only views within the City to the San Gabriel Mountains and the Puente Hills provide scenic vistas from specific locations in the City. The Project site, which is located at the southeast corner of Garvey Avenue and Tyler Avenue, does not provide unobstructed views to either of these scenic vistas due to intervening structures in all directions surrounding the property. The proposed Project is a mixed use residential and retail Project that would further contribute to this urban setting. Due to its location and the surrounding urban development, the proposed development will not cause substantial adverse impact to any scenic vista. Therefore, a less than significant impact to scenic vista resources would occur. No mitigation is required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The proposed Project is not located adjacent to a designated state scenic highway or eligible state scenic highway as identified on the California Scenic Highway Mapping System (California DOT 2014). The Project site is located in a previously developed, urban area, and contains no scenic resources such as unique geologic structures, or historic structures viewable from a state scenic highway. There are no California native trees, rare trees, or endangered trees located within the Project site (Arborgate Consulting, Inc. 2014). It was recommended in the Protected Tree Report, which was analyzed for the Project site, to plant new trees that are appropriate for the proposed development for safety and aesthetic reasons. Therefore, the proposed Project has no potential to damage any scenic resource values.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The existing visual quality of the Project site and surrounding area is fair to poor due to the presence of mostly older structures that are in different states of upkeep and the surrounding dense urban visual setting. Currently, the existing flooring warehouse, vacant buildings, auto yard and office, and trailer homes create the appearance of an older industrial area on the project site. These buildings, which are in fair to poor condition, contribute to the poor visual quality of the project site.

The proposed Project would construct a mixed use residential, live/work and retail development. Construction would create a short-term negative visual setting that will be replaced by new structures and landscaping. Because construction would be short-term and would occur in an already urban environment, it is expected to be less than significant. The new contemporary mixed-used development Project and modifications to the site landscape would result in a substantial improvement to the onsite visual quality and would have a beneficial effect to the surrounding visual setting. The proposed Project would result in a less than significant impact on the visual character/quality of the site and surrounding area. No mitigation is required. The Project will also serve to further enhance the City's urban design policies and goals for key corridors.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed Project could represent a new source of light or glare, which could impact day or nighttime views in the area. However, the Project site is located within an area that is already subject to light and glare due to existing conditions, and the Project is not expected to contribute to light and glare in a significant way because it will conform to City lighting requirements. The proposed Project would include exterior lighting along the perimeter of the Project boundary for adequate safety and security.

Lighting will be shielded and oriented downward. Pedestrian-scaled street lights will be provided (no taller than 14 feet). Lighting will also be incorporated along pathways, plazas and other common areas to enhance the pedestrian environment and increase public safety. Lighting for nonresidential uses will be designed, located and shielded to ensure that they do not adversely impact the residential uses, but will provide sufficient illumination for access and security purposes. A six foot high wall would be located at the southern perimeter of the Project site and would shield lighting from the adjacent synagogue and residences.

As part of the City's building plan process, the applicant will submit a conceptual lighting plan. Project impacts are considered less than significant because the future lighting within the Project site would comply with City design policies from night lighting. Additionally, Project features would minimize light spillage from the Project site. Therefore, a less than significant impact would occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
<p>a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>				X
<p>b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?</p>				X
<p>c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?</p>				X
<p>d. Result in the loss of forest land or conversion of forest land to non-forest use?</p>				X
<p>e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?</p>				X

Discussion:

- a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The proposed Project will be located in a developed, urban area that does not contain agriculture or forest uses. The Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California DOC 2013). Additionally, the City of El Monte does not have a County-designated Agricultural Opportunity Area (City of El Monte 2008). Therefore, there would be no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

- b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?**

No Impact. The Project site is located in an urban location and environment and has been developed for decades. The Department of Conservation map does not identify any land allocated to agricultural uses and important farmland in the City (California DOC 2013). Additionally, the proposed Project would not conflict with zoning that would otherwise allow for agricultural uses. The City of El Monte does not contain land in the City zoned or designated for agricultural use; El Monte does not have a County designated Agricultural Opportunity Area. Therefore, no impact would occur.

- c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526)?**

No Impact. The Project site is not located within an area containing forest land or timberland. In addition, the site's zoning does not provide for Timberland Production. Therefore, no impacts would occur.

- d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. The Project site is not located within forest land and the implementation of the Project would not result in the loss of forest land or conversion of forest land to non-forest production use.

- e. Would the project involve other changes in the existing environment that, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact. The proposed Project does not contain agricultural uses. The proposed Project does not involve other changes in the existing environment, due to their location or nature, which could individually or cumulatively result in loss of Farmland to non-agricultural use or conversion of forest land to non-rest use. No impacts to agricultural or timberland resources are anticipated. Therefore, no impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a.	Conflict with or obstruct implementation of the applicable air quality plan?		X	
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X	
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?		X	
d.	Expose sensitive receptors to substantial pollutant concentrations?		X	
e.	Create objectionable odors affecting a substantial number of people?		X	

The Project is located in the South Coast Air Basin with high air pollution potential as a result of the volume of emissions in the area, the topography, and climate. Mountains surround the area and contribute to the meteorology of the area, which is generally mild in temperature with infrequent rainfall. There are infrequent hot summers and unusual winds such as the Santa Ana winds. The high mountains to the east, temperate climate, and calm air can result in higher pollution potential. Federal, state, and local air quality policies provide the regulatory framework for the Project.

Federal

The federal Clean Air Act (CAA) of 1963 and its subsequent amendments form the basis for the nation’s air pollution control effort. The United States Environmental Protection Agency (USEPA) is responsible for implementing most aspects of the CAA and includes the National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The CAA delegates the enforcement of the federal standards to the states. In California, the California Air Resource Board (CARB) is responsible for enforcing air pollution regulations. In

the South Coast Air Basin, the South Coast Air Quality Management District (SCAQMD) has this responsibility.

State

The State of California, via CARB, promulgates the California Ambient Air Quality Standards (CAAQS) which are generally more stringent than the NAAQS and include the same pollutants as well as four additional pollutants (sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particulate matter). Air Quality Management Plans (AQMP) are prepared by regional air quality management districts for the CARB which then submits them to USEPA and they also become part of the State Implementation Plan.

Regional

The proposed Project is located within the SCAQMD. The SCAQMD monitors air quality and also prepares the AQMP, which addresses state and federal planning requirements via emissions inventories, ambient measurements, and air quality models. The SCAQMD developed the 2012 AQMP which indicates all feasible measures will be implemented to achieve attainment of the federal 24-hour $PM_{2.5}$ standard by 2014. The AQMP includes considerations for anticipated growth due to land use development and redevelopment such as that which would take place for the Project.

Appendix A contains documentation of air quality and greenhouse gas/climate change technical calculations. The sections that follow summarize the findings of these analyses.

a. Would the project conflict with or obstruct implementation of the applicable air quality plans?

Less than Significant. The adopted 2012 AQMP as part of the State Implementation Plan prescribes the regional approach for attaining and maintaining air quality standards. Specifically, the AQMP provides a plan for complying with the federal 24-hour $PM_{2.5}$ standard and provides an update for meeting the federal 8-hour ozone standard. The AQMP provides scientific and technical information as well as planning assumptions such as the 2012 Regional Transportation Plan/Sustainable Communities Strategy, methodologies for emissions inventory for various sources, and regional growth forecasts.

Attainment areas refers to those areas that meet air quality standards for the region and nonattainment areas include those areas that do not meet air quality standards for the region. For the NAAQS, the Project location is in a nonattainment area for ozone, $PM_{2.5}$, and lead as well as being located in a maintenance area for PM_{10} , CO, and NO_2 . The area is designated as nonattainment for ozone, PM_{10} , $PM_{2.5}$, NO_2 , and lead under the CAAQS and attainment for CO.

The proposed Project would be consistent with the El Monte General Plan Update and since the AQMP is incorporated as part of the El Monte General Plan, all the rules and regulations of the SCAQMD are therefore also consistent and accounted for. The AQMP includes a number of control measures that are required as applicable for the Project, specifically:

- Enhanced exhaust emission control on new and retrofit diesel-powered equipment for both on and off road construction; and

- Best available control measures for dust control (e.g., fugitive dust)

The Project would also comply with applicable rules for construction activities such as dust suppressants as required by Rule 403 (fugitive dust control). The SCAQMD has also set criteria pollutant significance thresholds for emissions associated with construction and operation of projects. The Project would not result in an exceedance of these thresholds, described in detail in Item III.b. that follows. As a result, there would be no conflict with the existing AQMP from the Project and a less than significant impact would occur.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant – California Emissions Estimator Model (CalEEMod) was used to calculate emissions from construction and operation of the Project. Appendix B includes technical details of the calculations made. Operationally the emissions are based on changes in traffic patterns attributed to the redevelopment of the property.

Construction Emissions

Construction of the Project would take place over the course of 12 months spanning the spring of 2015 to the spring of 2016. Each phase of Project construction may overlap but with no phase lasting longer than three months. For the purposes of estimating construction air quality emissions, each phase is assumed to require three months which is considered worst case. A given piece of construction equipment for the Project would be used for part of each 8-hour workday under various usage factors as documented in Appendix B. Emissions would result from combustion of fossil fuels by construction equipment. Note that Foundation, Building, Paving, and Landscaping are all included in the same phase of construction in CalEEMod. Construction of the Project would include:

- Demolition – 1 month duration
- Site Preparation – 3 months duration
- Grading – 3 weeks duration
- Building Construction – 3 months duration
- Architectural Coating – 2 months duration

The intermittent and short-term emissions generated by these activities would include dust from soil disruption and combustion emissions from the construction equipment. Emissions associated with construction equipment include PM₁₀, PM_{2.5}, NO_x, CO, VOCs, SO_x, GHGs, and small amounts of air toxics. Because the emissions would be temporary and because they would not result in an exceedance of CAAQS or NAAQS threshold they are considered less than significant. Table III-1 provides the estimated construction emissions for the Project.

Table III-1. Maximum Daily Construction Emissions (lbs/day) by Construction Phase

Construction Phase	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Demolition	4.5	48.4	36.1	0.0	2.5	2.3
Site Preparation	5.3	56.9	42.6	0.0	21.2	12.8
Grading	3.8	40.4	26.7	0.0	8.6	5.5

Table III-1. Maximum Daily Construction Emissions (lbs/day) by Construction Phase

Construction Phase	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Building Construction	3.7	30.0	18.7	0.0	2.1	2.0
Architectural Coating	13.2	2.6	1.9	0.0	0.2	0.2
Highest Construction Phase	13.2	56.9	42.6	0.0	21.2	12.8
Regional Significance Threshold	75	100	550	150	150	55
Localized Significance Threshold	-	203	1733	-	14	8

Operational Emissions

Operational emissions were calculated using CalEEMod and include vehicle trips and energy consumption by the Project after construction. Table III-2 provides the results of the emissions calculations and demonstrates that operational emissions would not result in a significant impact to regional air quality. Operational emissions include mobile emissions or vehicle trips and energy consumption in the area.

Table III-2. Maximum Daily Operational Emissions (lbs/day)

	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	4.7	5.8	27.0	0.1	3.9	1.4
Regional Significance Threshold	55	55	550	150	150	55
Localized Significance Threshold	-	203	1733	-	4	2

Localized Impacts

SCAQMD includes guidelines for localized significance thresholds applicable to the Project. Impact assessments are made using the SCAQMD mass rate localized significance threshold look-up tables that are based on project location, size, and sensitive receptor distance. For the Project it was assumed that the site is five acres in size even though the Project is smaller at 3.5 acres, this is the closest Project size provided in the localized significance threshold lookup tables, and receptors are estimated at 25 meters away, the closest option available. Table III-2 provides localized significance thresholds and demonstrates that the Project would not exceed these thresholds for operational emissions. Construction emissions are provided in Table III-1 and indicate that PM₁₀/PM_{2.5} emissions are predicted to exceed the localized significance thresholds when unmitigated. Mitigation using dust palliatives such as water would reduce these emissions below the localized significance thresholds would be implemented per SCAQMD requirements. Therefore, construction with use of dust palliatives would not result in a significant impact.

- c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less than Significant - Criteria pollutants would be emitted as a result of the Project; however, emissions would be less than the SCAQMD regional and local thresholds. Therefore, cumulative impacts would be less than significant. See Item III.b. for emissions estimates.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant – Although construction and operation of the Project would result in criteria pollutant emissions, these emissions would be less than the SCAQMD’s regional and local thresholds. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations and impact would be less than significant. See Item III.b. for emissions estimates. As described under section III.b the nearest sensitive receptors are adjacent to and located within 25 meters of the Project with the most sensitive being multifamily residential uses to the south and southeast. Additionally, the proposed units would be considered sensitive receptors.

e. Would the project create objectionable odors affecting a substantial number of people?

Less than Significant – Diesel exhaust may result in some perceptible odors nearby; however, because of the mobile nature of this exhaust and because sensitive receptor distances are over 25 meters, odors are expected to be temporary and only periodically perceptible, if perceptible at all.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?				X

Discussion:

- a. Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**
- b. Would the project have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

No Impact. The Project site is located in an urban environment and no natural biological resources occur at the Project site. The Project’s General Plan land use designation is Mixed/Multi-Use and no potential exists to adversely impact any sensitive biological resources, riparian habitat, and other sensitive natural community. There are no sensitive natural communities within the City. Additionally, there are no significant ecological areas as defined by the Los Angeles County Department of Regional Planning (City of El Monte 2008). The proposed Project would have no impact on sensitive natural communities. No mitigation is required.

- c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. As stated in the City of El Monte General Plan Appendix, there are no wetlands located within the City of El Monte (City of El Monte 2008). The City is virtually developed with urban uses and the proposed Project would be developed on previously developed parcels rather than the development of vacant land. Therefore, the proposed Project would not result in impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act

through direct removal, filling, hydrological interruption, or other means. No mitigation is required.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

No Impact. The proposed Project does not have the potential to interfere with the movement of any native resident or migratory fish or wildlife species, or to adversely impact migratory wildlife corridors, or impede the use of native wildlife nursery sites. The entire City is developed with urban uses, including developed parks and flood control channels. There is no native habitat remaining in the City, and no wildlife movement corridors in the City (City of El Monte 2008). No impacts are anticipated and no mitigation is required.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. A Protected Tree Report analyzed the existing trees located in the Project Site (Arborgate Consulting, Inc. 2014). No historically significant or endangered tree species were identified within the Project Site. The City of El Monte Municipal Code Chapter 14.03 (Tree Protection and Preservation) establishes policies, regulations, and standards for protected trees. Protected trees include any public tree, Heritage Tree, or Native Trees. The Protected Tree Report identified fifteen (15) protected trees within the Project site. In order to be in compliance with the City’s Tree Protection and Preservation Ordinance, the applicant will obtain necessary permits to remove and replace all public and protected trees prior to construction. All trees (not protected) that are removed shall be replaced with a tree ratio of 2:1 from the City’s recommended tree palette or an in lieu fee shall be paid to the City’s Tree Mitigation and Planting Fund. Therefore, a less than significant impact would occur.

f. Would the project conflict with the provisions of an adopted habitat conservation plan, natural communities conservation plan, or any other approved local, regional, or state habitat conservation plan?

No Impact. The proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan. There are no Habitat Conservation Plans or Natural Community Conservation Plans in effect with the City (City of El Monte 2008). Additionally, there are no Significant Ecological Areas as defined by Los Angeles County within the City. No potential exists for conflicts with the provisions of these plans. Therefore, no impacts are anticipated and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d.	Disturb any human remains, including those interred outside of formal cemeteries?		X		

Discussion:

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?

No Impact. No identified historic structures were listed on the National Register of Historic Places within the City. The Cultural Resources Records Search performed for the Project site stated that no entries in the Historical Resources Data Files are known on or near the Project site. Numerous buildings were constructed on the Project site more than 45 years ago. However, none of these buildings have been recorded (Power Engineers 2014). Therefore, the proposed Project would not result in significant adverse impacts to a historic structure. No mitigation is required.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?

Less Than Significant Impact With Mitigation Incorporated. The Project site currently consists of retail shops, a trailer park, and auto repair and sales facilities. The Project site has been subject to development and grading in the past and is considered to be disturbed. Due to the previous ground disturbances, archaeological resources are not expected during construction. The potential for any archaeological resources to exist onsite is minimal.

Although the likelihood of discovering archaeological resources within the Project site is considered low, this impact is potentially significant. Therefore, implementation of Mitigation Measure CUL-1, which describes procedures to follow in the event that cultural resources are discovered, is required. CUL-1 would reduce the potential impact to a less than significant level.

Mitigation Measure CUL-1: In the event of an inadvertent discovery of cultural materials including any human remains, California State Health and Safety Code § 15064.5 of the CEQA Guidelines, Appropriate Mitigation Measures for significant resources could include but not be limited to avoidance or capping the Site, incorporation of the site in green space, parks, or open space, or data recovery excavations of the resource.

No further earthwork shall occur in the area of the Site until the Lead Agency approves the measures to protect these resources.

With the implementation of the above mitigation measure, potential archaeological resource impacts would result in a less than significant impact.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. The Project site currently consists of retail shops, a trailer park, and auto repair and sales facilities. The Project site has been subject to development and grading in the past and is considered to be disturbed. Therefore, the potential for any paleontological resources to exist on the Project site with any integrity is minimal. However, to address the potential for accidental exposure of subsurface paleontological resources during demolition or Site grading, the following mitigation measures will be implemented:

Mitigation Measure CUL-2: If buried cultural resources, such as chipped or ground stone, historic debris, building foundations, or bone, are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until an archaeologist who meets the Secretary of the Interior's qualification standards can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with California Department of Transportation (Caltrans), the SHPO, and other appropriate agencies. Appropriate treatment measures may include development of avoidance or protection methods, archaeological excavations to recover important information about the resource, research, or other actions determined during consultation.

With the implementation of the above mitigation measure, potential paleontological resource impacts would result in a less than significant level.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact with Mitigation Incorporated. No human remains are known to be located in the Project area. However, there is always the possibility that unmarked burials may be unearthed during construction. This impact is considered potentially significant and Implementation of Mitigation Measure CUL-3 reduces this impact to less than significant.

Mitigation Measure CUL-3: If human remains of Native American origin are discovered during Project construction, it will be necessary to comply with federal and state laws relating to the disposition of Native American burials, which fall under the jurisdiction of the Native American Heritage Commission (PRC Section 5097). If any human remains of Native American origin are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains, until:

- the coroner has been informed and has determined no investigation of the cause of death is required, or
- if the remains are of Native American origin:
 - the Native American Heritage Commission has notified Tribal representatives for any federal or state recognized tribes or other interested grounds by telephone with written confirmation. Notification will include information about the kinds of human remains, etc.,

present, their condition, and the circumstances of their discovery. Return receipt mail provides proof of written notification. This initiates the 30-day waiting period. If a federally recognized tribe can claim the territory associated with the find, Native American Graves Protection and Repatriation Act procedures will be followed. If no federally recognized tribes can claim the territory associated with the find, proceed directly to the requirements of California PRC Section 5097.98

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii.) Strong seismic ground shaking?			X	
iii.) Seismic-related ground failure, including liquefaction?			X	
iv.) Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X

Discussion:

- a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. There are no delineated Alquist-Priolo Special Study Zones within the City of El Monte (City of El Monte 2008) and active faults have not been identified on the Project site. The closest active fault to the Project site is the East Montebello fault. This fault is approximately 2.8 miles southwest of the Project site (Alta California 2013). The proposed Project would not expose people or structures to hazards related to surface rupture of a known fault. Therefore, the proposed Project would not result in a significant impact related to known earthquake faults. No mitigation is required.

ii.) Strong seismic ground shaking?

Less than Significant Impact. The closest mapped recently active fault is a fragment of the Whittier Fault located approximately 2 miles southwest of the Project site. Additionally, the Project site is not located within an Alquist-Priolo earthquake fault zone (Stantec 2013).

The proposed structures are subject to the seismic design criteria of the California Building Code, Title 14, California Code of Regulations, Part 2. Additionally, the more specific seismic design guidelines contained in the Project's Geotechnical Report shall be implemented as outlined in the following mitigation measure. The development of the Project site is feasible from a geotechnical perspective (Alta California 2013).

The City's General Plan reviewed existing regulations, ordinances, and standard conditions, and found that compliance with these requirements would keep potential impacts related to ground shaking to below a level of significance. The proposed Project would be in compliance with existing regulations, ordinances, and conditions, including compliance with building codes. A geotechnical engineering investigation was completed for the proposed Project; the investigation made recommendations for grading, compaction, and foundation design to ensure seismic safety. As a standard practice, recommendations in the geotechnical report are incorporated into the Project's standard conditions. Therefore, a less than significant impact would occur.

iii.) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. There is a potential for liquefaction to occur at the Project site during seismic shaking (Alta California 2013). The geotechnical report that was conducted for the Project site provides specific design measures that will be required to achieve Site stability. As a standard practice, recommendations stated in the geotechnical report are incorporated into the Project's standard conditions. Therefore, a less than significant impact would occur.

iv.) Landslides?

No Impact. The proposed Project is essentially flat and covered entirely by asphalt and buildings (Alta California 2013). No hillsides are present in the vicinity. Therefore, the proposed Project would not result in impacts related to landslides.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Due to the existing developed nature and flat topography of the Project site, the potential for substantial soil erosion or place structures on suitable soils is generally considered less than significant. As a standard practice, recommendations stated in the geotechnical report are incorporated into the Project’s standard conditions. Such recommendations include taking remedial actions during construction to control surface water and to prevent erosion of graded areas until permanent drainage and erosion devices have been installed.

c. Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslides, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. Please refer to the discussion of liquefaction hazards under Item VI.a. above. The geotechnical report conducted for the Project site determined that the development of the Site is feasible from a geotechnical perspective (Alta California 2013). Regulatory requirements and standard conditions of approval, including preparation of a soils reports and incorporation of the report findings in the Project design would result in a less than significant impact to soil stability.

d. Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant Impact. The geotechnical investigation conducted for the Project determined that expansive soils are not present at the Project site. Therefore, less than significant impacts related to expansive soils would occur (Alta California 2013).

e. Would the project have soils that are incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed Project would be connected to the regional wastewater collection and treatment system. The proposed Project would not use septic systems or other alternative wastewater disposal systems that could adversely affect soil stability. Therefore, no impacts are anticipated and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS.					
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b.	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

Discussion:**a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than Significant. Greenhouse gas (GHG) emissions would result from construction and operation of the Project. As part of the air quality analysis for the Project GHG emissions in the form of CO₂ equivalents (CO₂e) were calculated to compare against applicable regulations. From a regulatory standpoint the Project should comply with the SCAQMD interim significance threshold for GHGs of 10,000 metric tons of CO₂e per year. This guidance threshold was designed for industrial uses, but remains the only quantifiable threshold provided to date from SCAQMD. Operational interim significance thresholds from SCAQMD are 3,000 metric tons per year of CO₂e. Appendix A of this document provides the GHG emissions calculations tables from air quality modeling using CalEEMod. GHG emissions from the given Project's construction are amortized over 30 years. Based on the emissions estimates for construction of the Project provided in Appendix A, GHG emissions are not predicted to exceed 10,000 metric tons per year of CO₂e; therefore, GHG emissions would be less than significant. Specifically, construction emissions are predicted to be 303 metric tons per year of CO₂e and operational emissions are predicted to be 1,050 metric tons per year of CO₂e. Table VII-1 provides the construction related GHG emissions for the Project. Note that the 30-year amortized levels would be less than those provided in Table VII-1.

Table VII-1. Maximum Daily Construction Emissions (metric tons/year) by Construction Phase

Construction Phase	CO₂	CH₄	CO₂e
Demolition	42.94	0.011	43.18
Site Preparation	125.50	0.036	126.25
Grading	23.99	0.007	22.90
Building Construction	101.43	0.021	101.87
Architectural Coating	8.14	0.001	8.16
Significance Threshold			10,000

b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact – There are no applicable plans, policies, or regulations for reduction of GHGs that are applicable to the Project however, because the anticipated GHG emissions associated with the Project are below the significance thresholds they are not expected to conflict with State GHG control strategies or other plans, policies, or regulations that govern GHG emissions and reduction thereof.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?			X	
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?				X
f.	Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?				X
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
h.	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Discussion:**a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less Than Significant Impact. The use, transport, storage, and disposal of hazardous materials as part of construction activities would comply with existing federal, state, and local regulations outlined in the City's General Plan (City of El Monte 2011).

All spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified and the material remediated in compliance with applicable state and local regulations regarding the cleanup and disposal of the contaminant released. All contaminated waste encountered would be required to be collected and disposed of at a licensed disposal or treatment facility. Additionally, all projects approved by the City of El Monte would be mandated to comply with all emergency response plan requirements set forth by the City and the Los Angeles County Fire Department.

The use, transport, storage, and disposal of hazardous materials would comply with existing federal, state, and local regulations during Project construction and operation. Therefore, the proposed Project would not result in significant impacts related to the routine transport, use, or disposal of hazardous materials, and no mitigation is required. Proposed uses of the Project site would not result in hazardous waste generation or require transport and disposal.

b. Would the project create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Less Than Significant Impact. Implementation of the proposed Project may create a hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Hazardous materials may be used during the construction phase of Project development. Petroleum fuels and lubricants will be used to support construction equipment operations. Such hazardous materials would be limited during the construction phase and would be subject to local, state, and federal regulations as they pertain to the transport and handling of these materials. Additionally, construction of the proposed Project would require the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, which requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) to control offsite runoff during construction. The purpose of the SWPPP is to prevent the contamination of stormwater during construction activities. The SWPPP shall include a Spill Prevention and Cleanup Plan which establishes the methods that must be implemented to prevent the spill of hazardous substances, as well as methods of containing, cleaning up and disposing hazardous materials in the event of an accidental release of such materials. Therefore, potential accidental releases of hazardous materials are expected to result in a less than significant level.

In the long term, operation of the proposed Project would not include any new use of hazardous materials in sufficient quantities to pose a significant risk to the public. Small quantities of household hazardous materials for cleaning and other routine activities would likely be required. Therefore, a less than significant impact would occur and no mitigation is required.

c. Would the project emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Less Than Significant Impact. The closest schools to the Project site are:

- El Monte High School, 3048 Tyler Avenue, El Monte, CA 91731
- International Theological Seminary School, 3225 Tyler Avenue, El Monte, CA 91732

El Monte High School is located approximately 0.08 mile north of the Project site, and International Theological Seminary School is located approximately 0.28 mile further north of the Project site.

Although the proposed Project could use minor amounts of hazardous materials such as cleaning supplies and household hazardous materials, it would not involve activities that would use or process hazardous materials, emit hazardous emissions, or emit toxic air contaminants. Although one school is located within 0.08 mile of the Project site, the proposed Project would not result in increased risks of hazards or exposure of school occupants to hazardous materials or emissions. Therefore, the proposed Project would not result in significant impacts and no mitigation is required.

d. Is the project located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant With Mitigation Incorporated. The provisions in Government Code Section 65962.5 are commonly referred to as the “Cortese List”. Hazardous materials databases, such as the Department of Toxic Substances Control’s (DTSC’s) Envirostor and the State Water Resources Control Board’s GeoTracker, were queried to identify potential hazardous materials release or clean-up sites onsite and near the Project site.

According to the California State Waterboards Geotracker site, which provides information on Leaking Underground Storage Tanks, the Project site is not located on a site which is included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. This information was verified online at:

<http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=11022+garvey+avenue%2C+el+monte%2C+ca>

The DTSC Hazardous Waste and Substance Site List (Cortese List) does not show any Hazardous Waste and Substances Sites located on the Project site. This information was verified online at:

https://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=2808%20tyler%20avenue,%20el%20monte,%20ca&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true

Additionally, a Phase II Environmental Site Assessment was completed for the Project site (Stantec 2013, attached as Appendix C)]. Soil samples were collected and analyzed for petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), and heavy metals. The results indicated no concentrations of any of these materials at levels above residential cleanup levels (see Tables to the Phase II Environmental Site Assessment). The results of soil vapor sampling performed across the site indicated volatile organic compounds in soil vapor at concentrations that in certain cases exceeded the applicable regulatory thresholds (i.e., the California Health Screening Levels, or "CHHSLs") (see Tables to the Phase II Environmental Site Assessment attached as Appendix C). As stated in the Phase II Environmental Site Assessment, tetrachloroethylene (PCE) concentrations were detected in soil vapor across the Project at low concentrations. To evaluate potential human health risks arising from the presence of contaminants in soil vapor at the Project, Stantec was engaged to prepare a Human Health Risk Assessment (HHRA) in September of 2014 (attached as Appendix C). The HHRA was prepared in accordance with risk assessment methods accepted by the California Environmental Protection Agency (Cal-EPA), the State of California's Office of Environmental Health Hazard Assessment (OEHHA), the State of California's Department of Toxic Substances Control (DTSC), and the United States Environmental Protection Agency (see HHRA page (i), paragraph 2). The results of the HHRA indicated that human health risks arising from the concentrations of contaminants (including PCE) in soil vapor only slightly exceeded the acceptable risk standard for residential use (i.e., an individual lifetime excess cancer risk of 1.0 in 1 million) – and only at one location at the Project (see table on HHRA page (iii)). In order to prevent human health risks from exceeding the standard, Stantec recommended installing soil vapor barriers on the eastern portion of the Site up to approximately 50 feet inside the property boundary from Tyler Avenue, up to the area designated as boring SV-16 (see Figure 2 of the HHRA), the location where the risk associated with elevated concentrations were determined to be acceptable by Stantec.

Accordingly, City Ventures development plans for the Project include the installation of a soil vapor barrier system beneath structures within the area identified above (i.e., SV-16) in order to prevent soil vapor from intruding into indoor air through the foundation slab, thereby eliminating the exposure pathway. The vapor barrier system will include an impermeable synthetic membrane barrier, Geo-Seal™ or equivalent, consisting of two chemical resistant layers and one sprayed-applied core layer. The base layer and the bond layer are composed of a high-density polyethylene material bonded to a geotextile on the out-facing side. High-density polyethylene is known for chemical resistance, high tensile strength, excellent stress-crack resistance and for highly reliable subsurface containment. For further detail, please see the sample specification for vapor barrier, which is attached to this document as Appendix D. The geo-textile allows the bond layer to adhere to the slab and provides protection against vapor intrusion. The core layer is composed of an elastic co-polymer modified asphaltic membrane that creates a highly-effective seal around slab penetrations and eliminates the need for mechanical fastening at termination points.

The vapor barrier will be designed and installed with coordination between the architect and construction contractor to ensure proper design and installation around slab penetrations and footings. In addition, a smoke test will be conducted following the application to test for leaks to ensure that the vapor barrier system is impermeable and free of defects. The smoke test is

conducted by pumping non-toxic smoke underneath the barrier and repairing any and all areas where smoke appears. With these mitigation measures incorporated, a less than significant impact would occur.

Lead-based paint (LBP) and asbestos may be present within interior and exterior buildings surfaces. Such materials will be assessed immediately prior to demolition as part of a pre-demolition asbestos and LBP survey. Any such materials will be properly abated by the demolition contractor in accordance with Federal (Occupational Safety and Health Administration – OSHA) and State (California Occupational Safety and Health Administration - Cal/OSHA) environmental regulations, and prior to commencing demolition activities.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The El Monte Airport is located approximately 1.3 miles north of the Project site. All lands under the El Monte Airport planning areas set forth in the Los Angeles County Airport Land Use Plan are located in the airport boundaries. The Project site is not located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. Therefore, the proposed Project would not result in a safety hazard for people residing or working in the Project area. No impacts are anticipated and no mitigation is required.

f. For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. There are no private airstrips in the vicinity of the Project. As a result, no impacts will occur.

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact with Mitigation Incorporated. The proposed Project is located within an area that is accessible to the public roads that are adjacent to the Project site. According to the City of El Monte General Plan, Garvey Avenue is an evacuation route. Per state Fire and Building Codes, sufficient space will be provided around the buildings for emergency personnel, equipment access, and emergency evacuation. Landscaping will be sited with sufficient clearance from proposed structures so as not to interfere with emergency access to and from the Project site. The Project driveways will allow evacuation from the Site, and will be constructed to California Fire Code specifications. To address any potential traffic disruption and emergency access issues during construction, the following mitigation measure is included in this section. Impacts are reduced to a less than significant level with mitigation incorporated. No additional mitigation is required.

HAZ-1: During any Project-related work within either Tyler Avenue or Garvey Avenue road rights-of-way, the applicant shall implement a traffic management plan approved by the appropriate governing agencies. The plan shall ensure safe passage of traffic through the construction area and adequate emergency access to all parcels of land adjacent to the construction area.

h. Would the project expose people or structures to the risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The Project site and surrounding area are located in an urban environment and devoid of wildlands subject to wildfires. Therefore, there is no potential for wildland fires to occur at the Project site. No impacts are anticipated and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY.					
Would the project:					
a.	Violate any water quality standards or waste discharge requirements?			X	
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?			X	
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?			X	
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?			X	
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f.	Otherwise substantially degrade water quality?			X	
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?				X

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j.	Contribute to inundation by seiche, tsunami, or mudflow?				X

Discussion:

a. Would the project violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. The Project site is currently fully developed, paved, and covered with impervious surfaces. However, the proposed Project would include landscaping and an open space/park area, as well as Low Impact Development onsite to capture a portion of the Site runoff and direct it to an onsite infiltration device. The proposed Project would construct a new storm drain system. The storm drain system will collect drainage from the site via a series of area drains, gutters, and catch basins and ultimately discharge into a storm drain line. The storm drain line will pass through a filtration vault and connect to a storm drain line and connect to the back of the catch basin located at the southeast corner of the intersection Tyler and Garvey. Filtration beds will be provided to treat storm water to meet County of Los Angeles Low Impact Development (LID) requirements.

The Project site will convert vehicle sales and repair facilities to residential use. This inherently will improve the quality of the storm water runoff. Approximately 24 percent of the total Project area would be devoted to open space and will improve water detention and percolation onsite.

During construction, projects resulting in the disturbance of one acre or more are required to obtain a National Pollutant Discharge Elimination System General Permit for Construction, which control pollutant runoff from the Project site during construction. The proposed Project would comply with the General Permit for Construction, which requires preparation of a SWPPP and Best Management Practices (BMPs) that would control construction-related pollutants from the Site. Water quality impacts during construction of the proposed Project are considered less than significant given the standard mandatory requirements that address runoff quantity and quality. No mitigation is required.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The Project site will be covered with pavement, structures, open space, and landscaping. Thus, the majority of the proposed Project site would be approximately 75 percent impervious. Landscaping will occur along the perimeter of the Project site. The proposed Project will introduce landscaping and infiltration that will increase groundwater recharge. No groundwater wells were observed on the Project site and the proposed Project will not have a direct or indirect effect on any existing wells. The Project water supply will be provided by the City of El Monte, which depends on groundwater supplies from the Main Basin. The proposed Project will require an estimated 14,054 gallons per day (gpd).

Groundwater extraction is limited to the basin's safe yield, which is the rate which groundwater can be withdrawn without causing long-term decline of water levels. If the City pumps more than the allocated amount of water, replacement water must be purchased from Upper District to offset demands in excess of the City's water rights (TKE 2011). Because of the regulatory structure and regulations for groundwater pumping and replenishment, the proposed Project is not forecasted to contribute to a reduction of groundwater in the regional aquifer or a substantial lowering of the groundwater table within the basin. The potential impacts to water resources in the basin are considered a less than significant impact.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?

Less Than Significant Impact. Projects that would be implemented in accordance with the El Monte General Plan Update are required to comply with Clean Water Act requirements. These requirements include the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for the construction phase of a project. A Water Quality Management Plan (WQMP) is required for the operation phase of a project. The City's General Plan states that upon implementation of regulatory requirements and standard conditions of approval, the impacts would be less than significant (City of El Monte 2011).

The proposed Project would be consistent with the City's General Plan and will develop a SWPPP and WQMP. During construction, the SWPP would include BMPs that are intended to minimize erosion and pollution of runoff. The BMPs included in the WQMP would minimize water pollution and erosion during the operation phase of the Project development.

The proposed Project would construct a new storm drain system. The storm drain system will collect drainage from the site via a series of area drains, gutters, and catch basins and ultimately discharge into a storm drain line. The storm drain line will pass through a filtration vault and connect to a storm drain line and connect to the back of the catch basin located at the southeast corner of the intersection Tyler and Garvey. Filtration beds will be provided to treat storm water to meet County of Los Angeles LID requirements.

The Project site will convert vehicle sales and repair facilities to residential use. This inherently will improve the quality of the storm water runoff. It is anticipated that future runoff from the Project site would be reduced due to the introduction of new landscaped areas and open space areas, and the new storm drain system. The drainage pattern of the Project site will not be altered since the majority of the Project site is paved or concrete lined. No potential exists for

future runoff to cause substantial erosion or filtration. A less than significant impact would occur. No mitigation is required.

- d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?**

Less Than Significant Impact. As discussed in Checklist Item IX.c. above, runoff from the Project site would be conveyed to the local storm drain system. Runoff would not result in changes in the course of a stream or river that could result in substantial erosion or situation off-site. Additionally, the proposed Project would not substantively change the amount of impervious surface area of the Project site, and would not substantively change the amount of runoff conveyed by the City's storm drain system. The proposed Project would be in compliance with the City's low impact development requirements. Therefore, the proposed Project would not result in substantial changes to existing drainage patterns and would not substantially increase the rate or amount of surface runoff that could result in on-site or off-site flooding. The proposed Project would not result in significant impacts to on-site or off-site flooding.

- e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Less Than Significant Impact. As discussed under Checklist Items IX.a, IX.c., and IX.d., above, the proposed Project is not expected to create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage system, and would not result in runoff that would result in violations of water quality standards. The proposed Project would be in compliance with the City's low impact development requirements.

- f. Would the project otherwise substantially degrade water quality?**

Less Than Significant Impact. As discussed under Checklist Items IX.a. and IX.c. above, the proposed Project is not expected to create or contribute to runoff that would result in violations of water quality standards.

- g. Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact. The proposed Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The City of El Monte is not located in a 100-year floodplain and is designated as a No Special Flood Hazard Area Zone C. There is no Flood insurance Rate Map for the area covering the City (City of El Monte 2011). Therefore, the proposed Project would not place housing within a 100-year flood hazard area. No impacts would occur and no mitigation is required.

h. Would the project place within a 100-year floodplain structures that would impede or redirect flood flows?

No impact. As discussed under Checklist Item IX. G. above, the proposed Project would not be placed within a 100-year floodplain. Thus, the proposed Project would not locate any structures within a 100-year floodplain, or otherwise impede or redirect flood flows. No impacts would occur, and no mitigation is required.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. The Santa Fe Dam and Reservoir is located on the San Gabriel River, which is 2 miles northeast of the City of El Monte, or 6 miles from the Project site. The dam functions as a dry dam, with its reservoir empty most of the year. During large floods, water is stored behind the dam and then released as quickly as possible without exceeding the capacity of downstream levees. Releases from Santa Fe are coordinated with Whittier Narrows Dam 10 miles (16 km) downstream, as well as the upstream Cogswell, San Gabriel and Morris Dams, to provide flood protection to cities along the San Gabriel River. By capacity, it is the second largest dam along the San Gabriel, after Whittier Narrows.

During the summer and autumn months, most of the water flowing into the Santa Fe reservoir is diverted into the Santa Fe Spreading Grounds, located near the upper end of the flood control basin, helping to recharge groundwater levels in the San Gabriel Valley. Excess inflow can be sent to the Peck Road Water Conservation Area and additional spreading grounds along the Rio Hondo. As a result, the San Gabriel River channel below the dam is often bone dry. Most of the spreading grounds are owned and maintained by the Los Angeles County Department of Public Works, reclaiming an average of 110,000 acre-ft (140,000,000 m³) of water each year.

Because the reservoir is dry the majority of the year, and because water from this basin is diverted for groundwater recharge, thus leaving water levels low or not present, the potential and severity for flooding due to dam breach is very remote and is dependent on the speed of inundation, location, and nature of the dam failure and topography, which were taken into account in the design of the dam and reservoir. While the proposed Project will increase the number of people located onsite, it will not expose those people or structures to any more significant risk than exists presently. Therefore, significant risk of loss, injury or death involving flooding as a result of dam failure will be less than significant.

j. Would the project contribute to inundation by seiche, tsunami, or mudflow?

No impact. There is no source that could create a seiche, tsunami, or mudflow that could inundate the proposed Project site. There are no water bodies (lakes, reservoirs, etc.) that could potentially generate a seiche. In addition, the project site is located approximately 27 miles from the Pacific Ocean and is not located within an area that may be subject to a tsunami. No impact is forecasted and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:					
a.	Physically divide an established community?			X	
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion:

a. Would the project physically divide an established community?

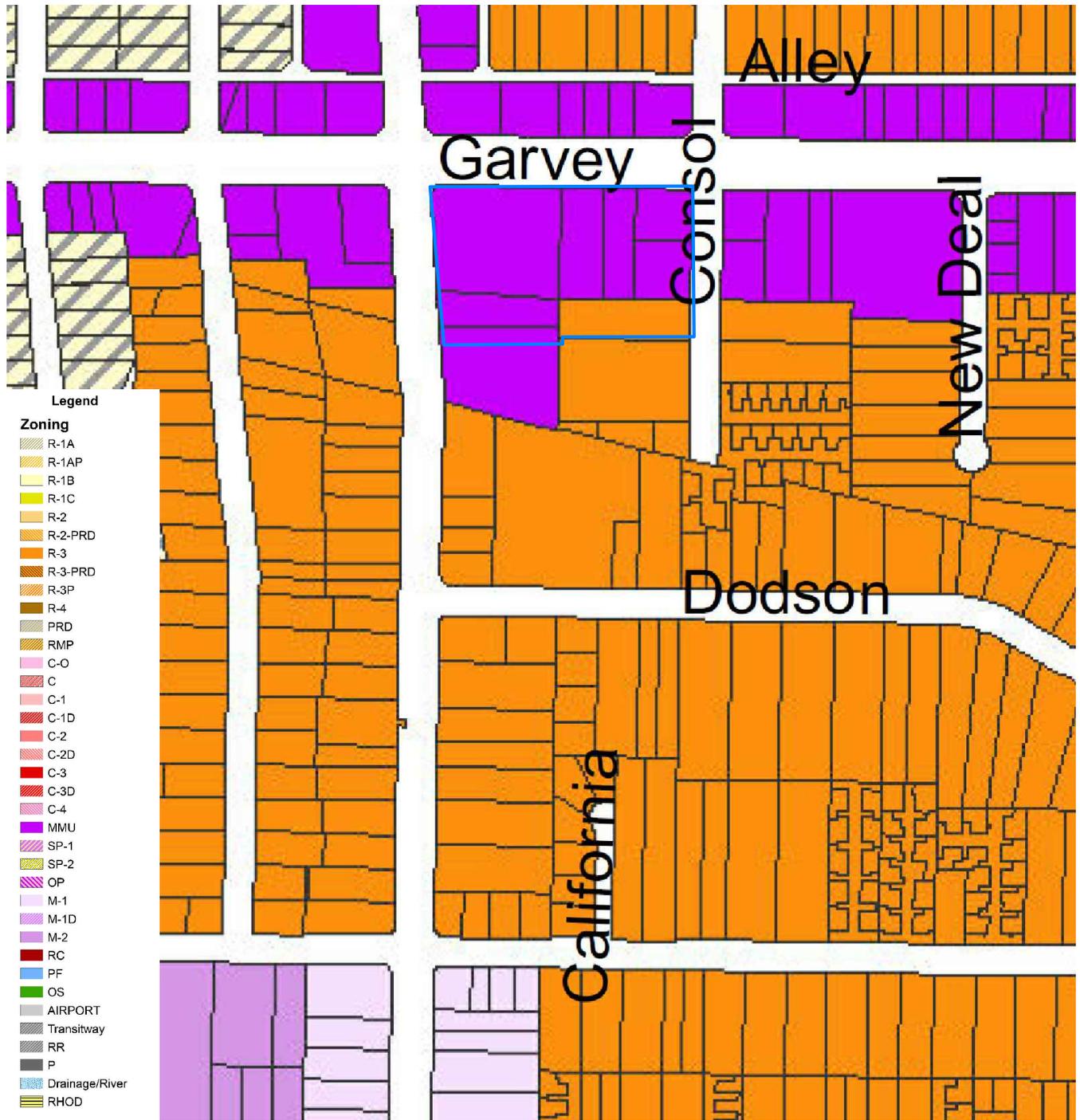
Less Than Significant Impact. The proposed Project would not disrupt or divide the physical arrangement of an established community. The new development will be confined to privately owned properties and no new streets (public or private) that could potentially divide an existing neighborhood will be required. The Project is consistent with the City of El Monte General Plan and Zoning Code. The following uses are adjacent to the Project site and similar uses are currently located in areas adjacent to the Project:

- North: Garvey Avenue, Auto Repair, Fast Food Restaurant
- South: Synagogue; Residential
- East: Residential; Retail stores
- West: Auto Repair; Car sales lot; Commercial

Any impacts are considered less than significant and no mitigation is required.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed Project would be consistent with the El Monte General Plan and would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. As shown in Figures 4 and 5, the project site is zoned as



Legend

- Zoning**
- R-1A
 - R-1AP
 - R-1B
 - R-1C
 - R-2
 - R-2-PRD
 - R-3
 - R-3-PRD
 - R-3P
 - R-4
 - PRD
 - RMP
 - C-O
 - C
 - C-1
 - C-1D
 - C-2
 - C-2D
 - C-3
 - C-3D
 - C-4
 - MMU
 - SP-1
 - SP-2
 - OP
 - M-1
 - M-1D
 - M-2
 - RC
 - PF
 - OS
 - AIRPORT
 - Transitway
 - RR
 - P
 - Drainage/River
 - RHOD

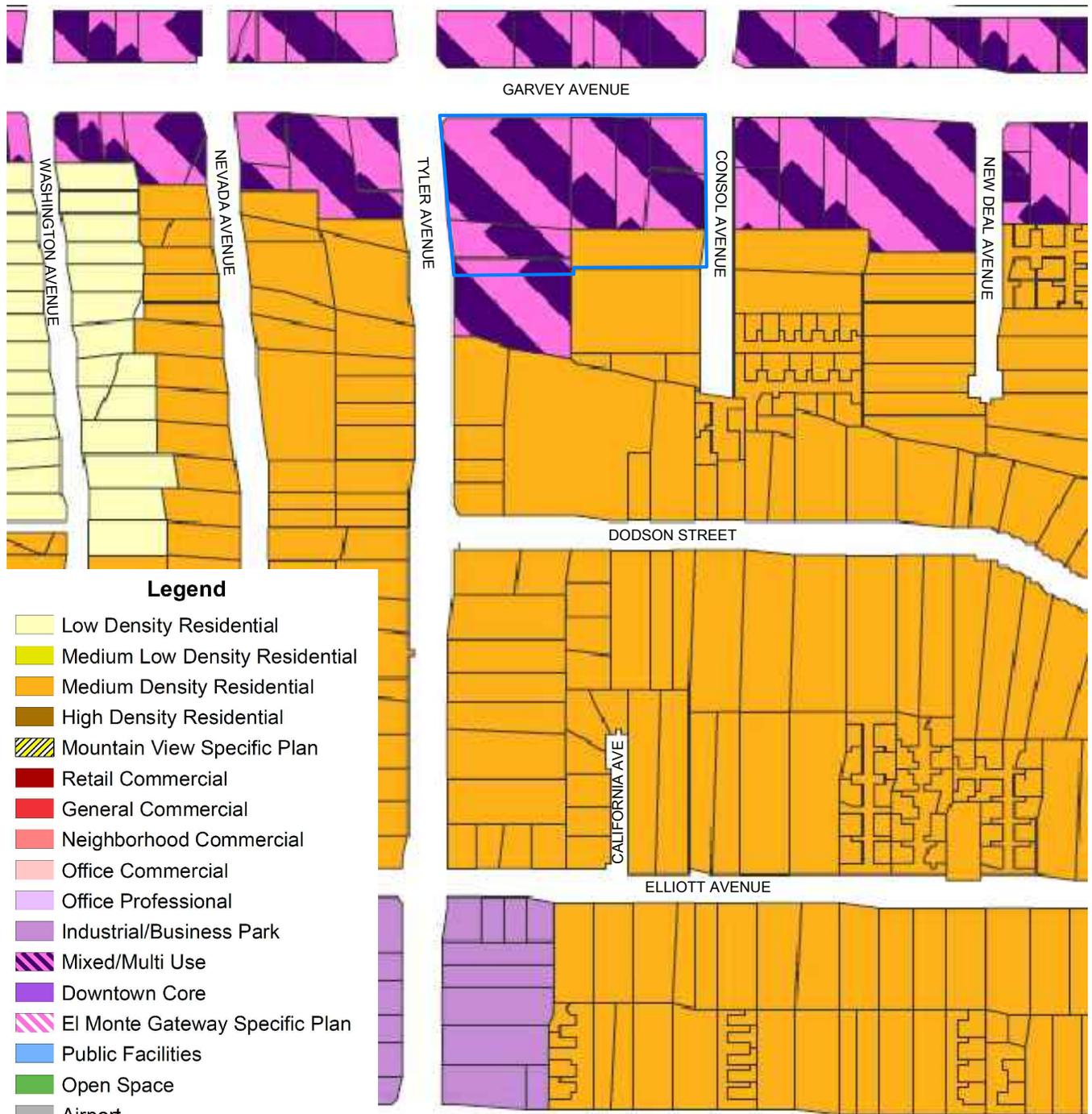
LEGEND

— SITE BOUNDARY (APPROXIMATE)

APPROXIMATE SCALE IN FEET



CITY VENTURES - EL MONTE				
SITE ZONING				
11022 TYLER AVENUE			EL MONTE, CA	
		PREPARED BY:		
		TETRA TECH, INC.		
17885 VON KARMAN AVENUE, SUITE, 500 IRVINE, CA 92614-6213 Phone (949) 809-5000 Fax (949) 809-5004				
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
194-5106	MC	WRI	OCT 2014	4



Legend

- Low Density Residential
- Medium Low Density Residential
- Medium Density Residential
- High Density Residential
- Mountain View Specific Plan
- Retail Commercial
- General Commercial
- Neighborhood Commercial
- Office Commercial
- Office Professional
- Industrial/Business Park
- Mixed/Multi Use
- Downtown Core
- El Monte Gateway Specific Plan
- Public Facilities
- Open Space
- Airport

LEGEND

- SITE BOUNDARY (APPROXIMATE)

APPROXIMATE SCALE IN FEET



CITY VENTURES - EL MONTE				
SITE GENERAL PLAN DESIGNATION				
11022 TYLER AVENUE			EL MONTE, CA	
		PREPARED BY: TETRA TECH, INC. 17885 VON KARMAN AVENUE, SUITE, 500 IRVINE, CA 92614-6213 Phone (949) 809-5000 Fax (949) 809-5004		
PROJECT NUMBER	APPROVED BY	DRAWN BY	DATE	FIGURE
194-5106	MC	WRI	OCT 2014	5

Mixed Multi-Use (MMU) and the General Plan designation that is applicable to the property is MMU. The uses that are envisioned for the Project site would require modifications to various design standards, as the proposed Project currently does not meet all the project design requirements for the MMU zone and MMU General Plan designation. The proposed Project includes compliance with standard conditions, including, but not limited to the following:

- Policy 1.1: Ensure land use compatibility through adherence to the policies, standards, and regulations in the Municipal Code, Development Code, Community Design Element, and other regulations or administrative procedures (City of El Monte 2011b).

The Project’s applicant will obtain a modification from the City for variances in setbacks and housing density. Therefore, no significant impacts are anticipated and mitigation is required.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

No Impact. The proposed Project would not conflict with any applicable habitat conservation plan or natural community conservation plan. As discussed under Checklist Item IV.f. above (Biological Resources), there are no such plans within the City of El Monte. No impacts would occur and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Discussion:

- a. **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b. **Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

a-b). No Impact. No designated County of Los Angeles Mineral Resource Zones are located within the City. The City is completely developed, does not contain mining uses, and does not have land designated for mineral, aggregate, or sand production. Any mineral resources located in the City are not available or accessible due to its urban nature (City of El Monte 2008).

The proposed Project would be developed on land zoned as Mixed Multi-Use (MMU) and is not located on a site designated as having mineral resource deposits; the Project would not adversely result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The proposed Project would be consistent with the City’s General Plan and would not result in the loss of availability of a locally important mineral resource site delineated on a local general plan, specific plan, or other land use plan. The proposed Project is part of the urban environment within the City and; therefore, would not interfere with the availability of any known mineral resource. No impacts would occur and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project:					
a.	Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?			X	
b.	Expose persons to or generate excessive groundborne vibration or groundborne noise levels?			X	
c.	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d.	Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e.	Be located within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				X
f.	Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?				X

Discussion:

- a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?**

Less than Significant Impact. Table XII-1 provides the City’s ambient noise standards as defined in the City’s Code of Ordinances which are more stringent than the limits prescribed in the City’s General Plan. The General Plan includes Noise/Land Use Compatibility Standards with the most stringent standard applied to residential low-density developments of no more than 60 A-weighted decibels (dBA) using the community noise equivalent level (CNEL) whereas the limit prescribed by the City’s ambient noise standards is 50 dBA using the equivalent level (L_{eq}) during the day (7:00 a.m. to 10:00 p.m.) and 45 dBA L_{eq} at night (10:00 p.m. to 7:00 a.m.). The L_{eq} is defined as the energy averaged sound level for a given time period (e.g., daytime or nighttime). The ambient noise standards for single-family residential areas translate to 47 dBA CNEL.

Table XII-1. City of El Monte Ambient Noise Standards

Zone	Day 7:00 a.m. to 10:00 p.m. (Leq)	Night 10:00 p.m. to 7:00 a.m. (Leq)	CNEL (calculated)
Single-family	50 dBA	45 dBA	47 dBA
Multifamily	55 dBA	50 dBA	52 dBA
Commercial	65 dBA	60 dBA	62 dBA
Industrial	70 dBA	70 dBA	68 dBA

SOURCE: City of El Monte 2014.

The City further stipulates the following with regard to their ambient noise standards:

- *“It is unlawful for any person to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than five (5) decibels for a cumulation period of fifteen (15) minutes in any hour.*
- *At the boundary line between a residential zone and a commercial and/or manufacturing zone, the noise level of the residential zone shall be used.*
- *If a residential use is located within a commercial or industrial zone, the ambient noise level shall not exceed fifty (50) dBA between the hours of 10:00 p.m. and 7:00 a.m.”*

The City also allows for corrections to noise limits as described below in Table XII-2:

Table XII-2. City of El Monte Corrections to Ambient Noise Standards

Noise Condition	Correction in dBA
1. Impulsive sounds, pure tone or sounds with a cyclically varying amplitude (The following corrections apply to day only)	-5
2. Noise occurring for a cumulation period of more than 5 but less than 15 minutes in any hour.	+5
3. Noise occurring more than 1 but less than 5 minutes in any hour.	+10
4. Noise occurring less than 1 minute in any hour.	+15

Construction noise is permitted between the hours of 6:00 a.m. and 7:00 p.m. Monday through Friday and between the hours of 8:00 a.m. and 7:00 p.m. Saturday and Sunday. The Project will be constructed in these time periods; therefore, construction noise impacts are anticipated to be less than significant.

The City’s General Plan Future Sound Levels Map (See Figure 6) indicates that noise levels at the Project site currently or soon will, range from 60 dBA CNEL to 70 dBA CNEL with the highest sound levels at areas closest to Garvey Avenue. It is assumed that the predominant noise source affecting the Project site is traffic noise on Garvey Avenue and Tyler Avenue with secondary sound sources occurring on Consol Avenue, nearby automotive maintenance shops, commercial uses, and aircraft overflights.

Figure 6 Future Noise Contours in El Monte



- | | |
|---------------------|-----------------|
| Airport Runway | Roadway 60 CNEL |
| Airport Policy Area | Roadway 65 CNEL |
| 70 CNEL | Roadway 70 CNEL |
| | Roadway 70 CNEL |

The Project would result in negligible changes in sound levels and these changes mainly resulting from changes in traffic due to the change in land use. During operations, the Project will add sound sources such as heating, ventilation, and air-conditioning (HVAC) systems and would change traffic patterns slightly on area roadways. However, because existing sound levels are generally already high because of traffic noise, these changes to the acoustical environment are anticipated to result in only negligible increases in ambient sound levels at worst. For the purposes of this Project a negligible change in sound level are those that are not readily perceptible by humans. For example, traffic volumes on area roadways would need to double for sound levels at the Project site to increase sound levels by 3 dBA. According to the transportation analysis conducted for the Project area, roadways would not result in a doubling of traffic and therefore traffic noise would not increase by enough to be readily perceptible. Project HVAC systems would be designed such that received sound levels inside each residential or commercial area do not disturb activities that would take place there, for example sleeping in residences. Generally sleep disturbance is less likely to occur if received interior sound levels are 45 dBA L_{eq} or less (EPA 1974). The Project will be built with materials with a sound transmission class sufficient for interior noise levels at residences to be 45 dBA L_{eq} or less.

Because Project operational sound levels are not expected to increase ambient noise levels by more than 3 dBA, and interior received sound levels will be 45 dBA L_{eq} or less at residences, impacts are expected to be less than significant.

b. Expose persons to or generate excessive groundborne vibration or groundborne noise?

Less than Significant Impact. Construction for the Project would not implement impact devices such as pile drivers (impact or vibratory). Generally other construction equipment do not result in groundborne vibration levels sufficient to damage nearby buildings or to be perceptible relative to the criteria set by the Caltrans. Table XII-3 describes impact criteria for buildings and Table XII-4 describes impact criteria for humans. Although the root mean square is typically used to assess human response, Caltrans has provided threshold guidance for human response relative to peak particle velocity (PPV) to maintain a consistent metric for both human response and structural impacts to buildings.

Table XII-3. Caltrans Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

NOTE: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans, June 2004

Table XII-4. Caltrans Guideline Vibration Annoyance Potential

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

NOTE: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

SOURCE: Caltrans, June 2004

Because construction of the Project is not anticipated to exceed the levels for transient sources provided by Caltrans, groundborne vibration impacts from the Project are expected to be less than significant.

Operation of the Project would not require the use of equipment that generate groundborne vibration of sufficient strength to exceed the lowest limits for transient sources provided by Caltrans and therefore impacts are expected to be less than significant.

c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. See discussion of Checklist Item XII.a. where operational sound levels from the Project are described as resulting in a change in acoustic environment of less than 3 dBA.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact with Mitigation Incorporated. Construction of the Project will result in a temporary increase in noise levels for nearby sensitive receptors (e.g., residences). Noise generating construction activities will be restricted to the hours stipulated in the City's municipal code (e.g., 6:00 a.m. to 7:00 p.m. weekdays and 8:00 a.m. to 7:00 p.m. on weekends). Temporary construction barriers will be used to limit received sound levels from construction equipment at nearby noise sensitive receptors. Specifically, this mitigation treatment will be used along Consol Avenue between the Project and the adjacent motel and multi-family residences as well as along the southern limit of the Project in between the multi-family residences located adjacent. It should be noted that some masking effects may also occur as a result of traffic noise on Garvey Avenue and Tyler Avenue in particular, which may further help to alleviate temporarily construction noise levels. Table XII-5 provides maximum sound levels (L_{max}) in dBA for selected construction equipment at 50 feet. Because construction will be limited to daytime hours only and because mitigation measures via temporary sound barriers will be implemented, impacts are anticipated to be less than significant.

Table XII-5. Estimated L_{max} Sound Pressure Levels from Construction Equipment

Equipment*	Estimated Sound Pressure Level at 50 feet (dBA)
Crane	85
Forklift	80
Backhoe	80
Grader	85
Man basket	85
Dozer	83 – 88
Loader	83 – 88
Scissor Lift	85
Truck	84
Welder	73
Compressor	80
Concrete Pump	77

Data compiled in part from the following sources:

Federal Highway Administration, "Roadway Construction Noise Model User's Guide," Report FHWA-HEP-05-054 / DOT-VNTSC-FHWA-05-01, January 2006.

Power Plant Construction Noise Guide, Bolt Beranek and Newman, Inc. 1977.

Federal Highway Administration, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." Code of Federal Regulations, Title 23, Part 772, 1992.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No impact. The El Monte Airport is located approximately 1.3 miles north of the Project and all airport planning areas set forth in the Los Angeles County Airport Land Use Plan are located within the boundaries of the airport. The El Monte Airport could be characterized as a general aviation airport and as a result services smaller non-commercial aircraft. Because the El Monte Airport is located approximately 1.3 miles north of the Project site and due to the anticipated lower sound levels associated with general aviation airports, the Project is not anticipated to expose people living or working there to excessive airport noise levels.

f. For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No impact. There are no private airstrips in the vicinity of the Project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?			X	

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?		X		
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?		X		

Discussion:

- a. Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and business) or indirectly (e.g., through extension of roads or other infrastructure)?**

Less Than Significant Impact. The proposed Project is consistent with the City’s zoning designation of MMU and General Plan designation of MMU. Approximately 70 residential units, three of these units will be live/work spaces. An increase of approximately 320 residents would occur from the proposed Project. This estimated residential increase is based on the City of El Monte General Plan factor of 4.57 persons per household factor, or Residential Buildout Estimates. The net increase in population would be approximately 271 (approximately 20 trailer homes or 49 residents are currently located onsite). The addition of live-work lofts, residential units, and commercial use is consistent with the City’s current planning documents. Therefore, the proposed Project would not induce unplanned population growth and the Project would result in a less than significant impact. No mitigation is required.

- b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?**
- c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

b-c). Less Than Significant With Mitigation Incorporated. The proposed Project is a mixed-use residential and commercial development, which would provide 70 residential units; three of these units will be live/work spaces. A mobile home park is located on the southeastern portion of the Project site and would be removed in order to construct the proposed Project. Approximately 21 mobile homes would be displaced, including an estimated 49 residents. Based upon review of the available information, the Park units are all occupied by renters of Park owned-units with the exception of one non-Park owned unit that is owner-occupied.

The City is in the process of preparing Mobile Home Park Discontinuance and Tenant Relocation Regulations that would set forth the procedures for the conversion of an existing mobile home park or spaces to another use. The regulations will require mobile home park owners who wish to convert their property for another use to file an application to discontinue the mobile home park or mobile park use. The application for discontinuance will be required to include a relocation plan that will comply with standards and regulations developed by the Planning Commission (City of El Monte 2013).

Impacts to existing families and the existing tenant population onsite would occur from Project implementation and are presented in the draft Relocation Impact Report submitted to the City. This report presents the mitigation that would be implemented to reduce impacts to residents to less than significant levels.

Prior to the closure of the Park, all residents of the Park shall have the right to, and the availability of, a public hearing before the legislative body on the sufficiency of the Report and the relocation assistance described in Section 65863.7. This Report addresses all homeowners and tenants of the Park as of June, 2014.

Based on the survey of mobile home parks and of those parks where a representative was available to answer questions, one available pad was identified. Space rent for this park ranges from \$650 to \$700 per month, depending on the space size and location. The park will allow up to a 24 foot RV or a mobile home. Typically, a park will only consider accepting mobile homes, if they are brand new or in very good condition and are ten years old or newer. Although the owner-occupied mobile home within the Park is in fair condition, there are other limitations to moving it to another park. Generally accepted practices and regulations among mobile home park operators allow homes to be moved into the park if they are less than five years old and deny homes that are more than ten years old. While some park operators may allow homes in excess of 10 years, they are generally not accepted and would have to be approved on an individual basis. While the home may be structurally moved to another park, it does not meet the ten year age requirement and most likely would not be considered for acceptance by another park. Therefore, it is a reasonable conclusion that the owner-occupied travel trailer could not be relocated to a comparable mobile home park. There is a possibility the RV or “5th wheel” could be transported to an RV park, if a space were available.

The Report is to propose measures which will adequately mitigate the adverse impact of the closure on the Park residents. The relevant statutory law for the closure of a mobile home park and specific requirements for mitigation is California Government Code Section 65800; specifically Section 65863.7, which indicates the City may require the Park owner to take steps to mitigate any adverse impact of the closure on the ability of the displaced mobile home owners to find adequate housing in a mobile home park. But, the steps required to be taken to mitigate, “shall not exceed the reasonable costs of relocation”.

Given the linkage between mitigation and reasonable relocation costs, the Developer is obligated to determine what elements should be considered in determining “reasonable costs of relocation.” The scarcity of available park space and the difficulty or impossibility anticipated in the actual move and set-up of the non-Park owned unit provides for a financial allowance to mitigate the physical moves.

The report has determined that there is no impact to the current Park owner, who owns almost all of the existing units, because the units will be acquired as part of the property purchase. The most immediate impact of a possible Park closure is the effect on the resident owner of one of the travel trailers, who has been at the Park for almost five years. However, all 9 renters face the issue of the disposition of their coach and relocation to a replacement dwelling. Physical relocation to another mobile home park is not an option for the owner of the travel trailer.

Finding available alternative space, particularly for an older trailer, will be a challenge, if not impossible.

Increased housing costs associated with a market rate comparable rental unit or the purchase of a comparable mobile home or trailer within a different park may be a financial burden on the resident owner. The resident owner also faces disability challenges, which creates the need for this resident to secure replacement housing capable of accommodating the physical disability.

However, these potential impacts would be mitigated to a less than significant impact through the mitigation measures described below.

As stated above, the draft RIR proposes measures to mitigate the adverse impact of the closure of the Park. While the requirements “to mitigate” are stated in the California Government Code, there are no clear guidelines to determine what is required to mitigate any adverse impact.

It is the intent of the Developer to meet the above conditions as well as additional assistance to further mitigate the impacts of a park closure. The following acquisition costs, physical move costs, and relocation assistance will be offered to the resident owner-occupant and the tenants.

POP-1. Relocation Assistance for the Resident Owner of a Mobile Home/Trailer

- a) If it is feasible to relocate the trailer, payment will be provided as follows:
 1. Reimburse the actual cost to relocate the trailer, including without limitation, to disassemble, transport and reassemble the mobile home and all legally constructed additions to another mobile home or RV park.
 2. Payment of temporary lodging expenses, if the trailer relocation results in the homeowner being displaced over one or more nights, up to the maximum of \$100/night, and up to 3 nights;
 3. Payment of moving costs associated with moving all personal property, allowance to be determined based on the most current federal fixed move schedule for the State of California and the size of the displacement dwelling;
 4. Payment for necessary modifications to a replacement dwelling to accommodate a handicapped or displaced person; and
 5. Services of a relocation specialist to assist resident through all aspects of the relocation to include, but not be limited to, explaining options and relocation assistance program details, identifying replacement sites, coordinating moving arrangements and payment of benefits, not to exceed 16 hours of assistance from the specialist.

- b) If it is **not** feasible to relocate the trailer, payment will be provided as follows:
 1. Payment to the trailer owner for the appraised in-place value of the dwelling and all associated fixed property (\$5,000.00) as determined by a qualified appraiser;

or the cost to move and reassemble the trailer at an alternate location, whichever is greater.

2. If the unit is acquired by the Developer, the mobile home owner may remove it from the Park at their own cost and retain ownership.
3. Payment of moving costs associated with moving all personal property, allowance to be determined based on the most current federal fixed move schedule for the state of California and the size of the displacement dwelling;
4. Services of a relocation specialist to assist resident through all aspects of the relocation to include, but not be limited to, explaining options and relocation assistance program details, identifying replacement sites, coordinating moving arrangements and payment of benefits, not to exceed 16 hours of assistance from the specialist.

POP-2. Relocation Assistance for Tenants of Mobile Homes/Trailers

1. Payment of moving costs associated with moving all personal property, allowance to be determined based on the most current federal fixed move schedule for the State of California and the size of the displacement dwelling.
2. Tenant may remove and gain ownership of the unit they occupy from the Park at their own cost, if they choose.
3. Services of a relocation specialist to assist resident through all aspects of the relocation to include, but not be limited to, explaining options and relocation assistance program details, identifying replacement sites, coordinating moving arrangements and payment of benefits, not to exceed 16 hours of assistance from the specialist. This shall be implemented prior to the issuance of demolition permit.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i.) Fire protection?			X	
ii.) Police protection?			X	
iii.) Schools?			X	
iv.) Parks?			X	
v.) Other public facilities?			X	

Discussion:

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

- i.) Fire Protection**

Less Than Significant Impact. Future growth in the City of El Monte, as stated in the El Monte General Plan Update, would add residential units, residents, residential buildings, and employees to the City of El Monte. Future growth is expected to create the typical range of fire service calls, including structure fires, garbage bin fires, car fires, and electrical fires. New equipment would be required to provide adequate response times to serve future growth (City of El Monte 2011a).

Fire service for the City of El Monte is provided by the Los Angeles County Fire Department. Firefighting services in the City include three fire stations located throughout the City so response time to any resident is under five minutes. The nearest fire station to the Project site is Station 166 located at 3615 Santa Anita Avenue, and is located approximately 1.3 miles northwest of the Project site.

With implementation of regulatory requirements and standard conditions of approval, fire services impacts would be less than significant. Regulatory requirements and standard conditions of approval, such as compliance with the California Fire Code and the California Building Code, are not considered unique mitigation under CEQA since they are applied to all development.

The proposed Project would comply with the California Building Code, which includes fire safety features. Additionally, the Project site plan would be reviewed and approved by the Los Angeles County Fire Department as part of the site plan review process to ensure adequate fire safety provisions are incorporated into the Project. As part of the standard plan check process, fire flow adequacy would be confirmed based on information provided by the local water provider. Since the Project would be in compliance with fire safety requirements and is in close proximity to fire Station 166, the impacts would result in a less than significant impact. No mitigation is required.

ii.) Police Protection

Less Than Significant Impact. The El Monte Police Department (EMPD) employs 127 police officers and 91 civilian staff. The main police station is located at 11333 Valley Boulevard. Future growth in accordance with the El Monte General Plan Update is expected to increase demand for police services within the City. Build out of the El Monte General Plan Update would add approximately 24,527 residents and 22,959 employed persons to the City. Consequently, additional police equipment, facilities, and personnel would be required to provide adequate response times, acceptable public service ratios, and other performance objectives for law enforcement services.

Future projects would be reviewed by the City of El Monte individually and would be required to comply with requirements at the time building permits are issued; or, if the City determines the impacts of a project to be significant, the Project would be required to comply with project-specific mitigation measures.

The City's General Plan states that upon implementation of regulatory requirements and standard conditions of approval, the impacts would be less than significant. These regulatory requirements and standard conditions of approval are not considered unique mitigation under CEQA.

The proposed Project would increase demand for law enforcement services through the development of 70 homes, three of these homes are live/work spaces, which would result in a nominal increase in residences and persons employed in the City. The City employs about 1.1 police officers per 1,000 resident, and approximately 3.4 police officers per employee. The increase in permanent residents (or approximately an increase in 320 permanent residents for the proposed Project) would not result in a substantive increase to 1.1/1,000 residents ratio as compared to existing residences within El Monte (approximately 135,813 in 2015). Additionally, the increase in new employees would not result in a substantive increase to the 3.4/1 ratio as compared to existing employees in the City (approximately 37,574 in 2015) (City of El Monte 2011a). No substantive changes to the ratio of police officers to permanent residents and employees would result.

Due to onsite trespass prevention measures, such as better sight lighting, the potential for trespass or vandalism will be reduced; parking areas will be better secured; and overall security will be enhanced.

The proposed mixed-use Project would also incorporate and/or comply with the following El Monte General Plan policy, if applicable, as described in the City's General Plan:

- Require, through the conditional use permit, police department review of uses that may be associated with high levels of noise, nighttime patronage, criminal activity, loitering, or other activities to prevent adverse impacts.

Compliance with City requirements and standard conditions, including review of the Project through EMPD, would ensure that the proposed Project would not adversely affect the EMPD. Therefore, the proposed Project would result in less than significant impacts and no mitigation measures are required.

iii.) Schools

Less Than Significant Impact. The City of El Monte is presently served by 35 public schools and 10 private schools. The City is served by three school districts: the Mountain View Schools District; the El Monte City School District; and the El Monte Union High School District. Buildout of the El Monte General Plan Update is estimated to add about 3,839 students to the school districts serving El Monte. Individual developments within the City of El Monte would be required to pay school impact fees under Government Code Section 65995; the amounts of these fees are currently \$2.97 per square foot for residential developments. School fees levied by school districts under SB 50 are defined as comprising full mitigation for a project's impacts on public schools. Compliance with regulatory requirements and standard conditions of approval would not result in significant impacts to school (City of El Monte 2011b). As shown in the table below, the proposed Project would generate 49 students. The schools that would serve the proposed Project would have more than sufficient capacity to accommodate the potential increase in students as a result of the proposed Project. Therefore, the students generated by the proposed Project would not be expected to require the construction of new schools. A less than significant impact would occur and no mitigation is required.

Forecast Student Generation, Project Buildout (70 Residential Units)

	Elementary School	Middle School	High School	Total
Generation Rate ¹	0.4	0.1	0.2	0.7
Total Students Generated	28	7	14	49

¹ The same generation rates are used for single-family and multi-family units. Student generation rates source are from the State Office of Public School Construction, which are used by the demographic consultant for both El Monte Union High School District and El Monte City Schools District.

SOURCE: City of El Monte, General Plan Final EIR, 2011a.

iv.) Parks

Less Than Significant Impact. Developments that require approval of a tentative map or parcel map and built pursuant to the El Monte General Plan Update would be required to pay Quimby Act fees to the City for parks and recreation purposes. Quimby Act fees may be used for rehabilitating existing parks and recreation facilities. As stated in the City's General Plan, significant impacts would not occur if the Project is in compliance with regulatory requirements and standard conditions of approval (City of El Monte 2011a).

The proposed Project is a mixed-used project that would construct 70 townhomes, three of which will be used as live/work space. Therefore, the Project would be required approval of a tentative tract map and is subject to Quimby Act fees. Additionally, the Project proposes to provide onsite open space, an urban garden, and a village play area. Additionally, 25,721 square feet of common open space and 11,266 square feet of private open space are proposed. The applicant has applied for a modification, as the open space square footage currently proposed does not meet Code requirements. The modification will allow certain design features for the proposed Project that does not comply with all the landscape/open space standards under the MMU zone. The recreational amenities and open space provided on-site would reduce the demand for recreation and park services in the area from Project residents so that recreational and open space needs could be satisfied on-site. On-site open space and

recreational amenities, combined with Quimby fees, would reduce impacts to less than significant. No mitigation is required.

v.) Other Public Facilities

Less Than Significant Impact. Demand for other public facilities is not expected to be substantial due to the relatively small size of the Project within the context of the City’s existing residential and employment base. Therefore, the proposed Project is not expected to result in impacts to other public service facilities. No mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION. Would the project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			X	

Discussion:

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The proposed Project would include 70 townhomes, three of which will be used as live/work space. Approximately 20 trailer homes would be moved, translating into a net increase of approximately 50 units. Additionally, the increase in permanent residents would be nominal compared to existing residences within El Monte (approximately 135,813 in 2015). Therefore, it is anticipated that the Project would result in a less than significant impact to recreational facilities. No mitigation is required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less Than Significant Impact. The Project would include a Village Play area and urban garden, and as discussed above in Checklist XIV.a.iv. above, the proposed Project is not expected to substantively increase demand for recreational facilities, such that adverse physical impacts to recreation facilities would occur. No mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC.					
Would the project:					
a.	Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
b.	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d.	Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e.	Result in inadequate emergency access?			X	
f.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X	

Discussion:

- a. Would the project exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact. The traffic analysis evaluates the proposed Project's traffic impacts relative to existing conditions, as well as evaluates cumulative traffic impacts during the Opening Year (2017). The traffic analysis includes cumulative trip generation from other related

projects within the City, and ambient background traffic growth. The traffic analysis evaluated the following intersections in the Project vicinity:

1. Santa Anita Avenue/Garvey Avenue
2. Tyler Avenue/Garvey Avenue
3. Consol Avenue/Garvey Avenue
4. Peck Road/Garvey Avenue
5. Tyler Avenue/Dodson Street
6. Tyler Avenue/Elliott Avenue\

The study area intersections were analyzed using the Intersection Capacity Utilization (ICU) methodology for signalized intersections, or the Highway Capacity Manual (HCM) “Operations” methodology for unsignalized intersections. The degree of congestion at an intersection is described by the level of service, which ranges from level of service (LOS) A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. Brief descriptions of the six levels of service for signalized intersections are shown in Table XVI-1.

Table XVI-1. Level of Service Definitions

Level of Service	V/C Ratio or ICU (signalized)	Control Delay in Seconds (unsignalized)
A	0.00 – 0.60	0.0 – 10.0 seconds
B	0.61 – 0.70	10.1 – 15.0 seconds
C	0.71 – 0.80	15.1 – 25.0 seconds
D	0.81 – 0.90	25.1 – 35.0 seconds
E	0.91 – 1.00	35.1 – 50.0 seconds
F	1.01 or greater	50.1 seconds or greater

Significance Criteria

Per the City’s General Plan Circulation Element (2011a), the City desires to maintain LOS D throughout the City, except that LOS E may occur in the following circumstances:

- Intersections/roadways at, or adjacent to, freeway ramps
- Intersections/roadways on major corridors and transit routes
- Intersections/roadways on truck routes
- Intersections/roadways in, or adjacent to, commercial districts

A project would have a significant impact if it resulted in an increase in the V/C ratio of an intersection operating at LOS E or F of 0.010 V/C or greater. Per the City’s General Plan Circulation Element, Garvey Avenue, Santa Anita Avenue, and Peck Road are classified as Major Arterials. Therefore, per General Plan, LOS E would be the minimum acceptable LOS. Tyler Avenue is classified as a Secondary Arterial north of Garvey Avenue, and a Collector south of Garvey Avenue. For intersections significantly impacted by the Project in the weekday

a.m. and/or p.m. peak hours, mitigation measures will be provided to bring the intersection LOS back to baseline (i.e., “before project”) LOS levels.

Trip Generation

Weekday daily, a.m. and p.m. peak hour trip generation estimates for the proposed project were developed using trip rates provided in the Institute of Transportation Engineers *Trip Generation, 9th Edition*. The proposed residential component of the proposed project would be 67 dwelling units (DUs) of townhomes and 3 DUs of live/work space. The ITE *Trip Generation* manual does not have trip rates for live/work residential units. Therefore, trip generation estimates for the 3 DUs of live/work space have been accounted for as residential units (i.e., townhomes). In addition, although there are existing retail uses on the project site, they are not operating at their full patronage potential, and are not generating trips equivalent to their respective trip rates in the ITE *Trip Generation* manual. Therefore, to provide for a conservative traffic analysis, no trip credits have been assumed for the existing uses on site. However, the actual number of net trips generated by the proposed project would likely be less than the estimates shown in Table XVI-2 below. Summaries of the trip generation rates and resulting vehicle trips for the proposed project are presented in Table XVI-2.

Table XVI-2 Project Trip Generation Estimates

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
TRIP RATES								
Residential Condo/Townhouse (ITE 230)	per DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Specialty Retail Center (ITE 826) ¹	per TSF	44.32	0.60	0.76	1.36	1.19	1.52	2.71
TRIP GENERATION								
Rowtown and Live/Work Homes	70 DUs	407	5	26	31	24	12	36
Retail Uses	2.154 TSF	95	1	2	3	3	3	6
Retail Pass-by trips (10%) ²		-10	0	0	0	0	0	-1
Total Trip Generation		493	6	27	33	27	15	42
Notes:								
Trip generation rates based on <i>Trip Generation, 9th Edition</i> , Institute of Transportation Engineers (ITE), 2012.								
¹ Per ITE, zero trips are estimated during the a.m. peak hour for Specialty Retail uses since hours of operation are generally on or after 9:00 a.m. Therefore, a conservative estimate of one-half of the p.m. peak hour trip generation was assumed for the a.m. peak hour.								
² A conservative pass-by trip rate of 10 percent was assumed.								

According to the table, the proposed Project would generate approximately 493 daily trips, 33 a.m. peak hour trips (6 inbound and 27 outbound), and 42 p.m. peak hour trips (27 inbound and 15 outbound). Table XVI-3 presents the trip distribution of the proposed Project.

Table XVI-3. Project Trip Distribution

Roadway	Percent Distribution
Garvey Ave, west of Santa Anita Ave	10 percent
Garvey Ave, east of Peck Road (to I-10)	15 percent
Santa Anita Ave, north of Garvey Ave (to I-10)	30 percent
Santa Anita Ave, south of Garvey Ave	5 percent
Tyler Avenue, north of Garvey Ave	5 percent

Roadway	Percent Distribution
Tyler Avenue, south of Dodson Street	10 percent
Peck Road, north of Garvey Avenue (to I-10)	20 percent
Peck Road, south of Garvey Avenue	5 percent
Total	100 percent

Existing plus Project

Traffic generated by the proposed project was added to the existing scenario and the project impacts on the circulation system were analyzed. The proposed project trip assignment (based on the trip generation applied to the trip distribution) was added to existing traffic volumes (collected at the study intersections in early September 2014 while the adjacent El Monte High School was in session). This resulted in the Existing plus Project traffic volumes for the weekday a.m. and p.m. peak hours.

The peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection delay and LOS values. Table XVI-4 presents the results of the Existing plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Table XVI-4. Existing plus Project Intersection LOS Summary

Intersection	Control	Existing Condition				Existing plus Project				Difference	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM	PM
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS		
1. Santa Anita Ave/ Garvey Ave	signal	0.929	E	0.785	C	0.930	E	0.786	C	+0.001	+0.001
2. Tyler Avenue/ Garvey Avenue	signal	0.773	C	0.762	C	0.781	C	0.762	C	+0.008	+0.001
3. Consol Avenue/ Garvey Ave	2-way stop	73.6 sec	F	87.9 sec	F	79.7 sec	F¹	88.1 sec	F¹	+6.1 sec	+0.2 sec
4. Peck Road/ Garvey Avenue	signal	0.762	C	0.812	D	0.766	C	0.815	D	+0.004	+0.003
5. Tyler Avenue/ Dodson Street	1-way stop	18.5 sec	C	15.9 sec	C	18.6 sec	C	16.0 sec	C	+0.1 sec	+0.1 sec
6. Tyler Avenue/ Elliott Avenue	signal	0.542	A	0.647	B	0.543	A	0.650	B	+0.001	+0.003

NOTES: LOS for signalized intersections based on *Intersection Capacity Utilization* (ICU); LOS for unsignalized intersections based on *Highway Capacity Manual* (HCM).

Bold value indicates intersection is operating with unsatisfactory LOS, at LOS E or F.

Bold value indicates significant project impact per the appropriate City's LOS significance criteria.

¹ Intersection currently operates at LOS F without the project. Based on peak hour signal warrant analysis, addition of project trips does not create the need for a traffic signal. Therefore, the project does not create a significant impact.

Based on the Existing plus Project LOS analysis, all study area intersections would continue to operate with satisfactory LOS with minimal increases in V/C ratios with addition of traffic from the proposed project. The acceptable LOS at the intersection of Santa Anita Avenue/Garvey Avenue is LOS E as this intersection contains two Major Arterials. The unsignalized intersection of Consol Avenue/Garvey Avenue is currently operating at LOS F without the project. With addition of project trips, the intersection would continue to operate at LOS F, however, due to the low minor street volumes, a traffic signal would not be warranted per the Peak Hour Signal Warrant in the California Manual of Uniform Traffic Control Devices (MUTCD). Appendix B contains the MUTCD Peak Hour Signal Warrant analysis for the Existing plus Project condition.

In addition, the delayed southbound vehicles on Consol Avenue have access to the signalized intersections of Tyler Avenue/Garvey Avenue and Peck Road/Garvey Avenue via Concert Street to access Garvey Avenue. Re-routing of these delayed vehicles would also improve delays at the intersection. Because the proposed Project would not result in significant traffic impacts, no mitigation measures (such as street widening, lane additions, and/or traffic signal installation) are recommended.

Opening Year plus Project

The Opening Year plus Project scenario is comprised of the existing (2014) traffic conditions, plus three years of ambient traffic growth (2014 to 2017), plus traffic from cumulative (approved and/or pending) developments in the study area. A conservative ambient traffic growth rate of one (1) percent per year was applied to the existing traffic volumes to forecast up to year 2017. The growth rates in the Los Angeles County Congestion Management Program (CMP) indicate less than one percent annual growth in the San Gabriel Valley area. Cumulative development projects in the project vicinity were obtained from the City's *Economic Development and Redevelopment* website in August 2014. Table XVI-5 provides a list of the cumulative projects and their trip generation estimates. Appendix B contains the detailed information for the cumulative projects used in this traffic analysis.

Based on the table, the cumulative projects in the study area would generate a total of approximately 22,619 daily trips, 1,157 a.m. peak hour trips, and 2,181 p.m. peak hour trips. Those trips were distributed appropriately through the study area based on logical travel and commute corridors. The trip assignments of the cumulative projects, and the ambient growth rate were applied to the existing traffic volumes which derived the Opening Year (2017) Baseline traffic volumes. The peak hour traffic volumes for the baseline and project scenarios were input into the *Traffic* LOS software to determine the intersection delay and LOS values. Table XVI-6 presents the results of the Opening Year plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Opening Year plus Project LOS analysis, all study area intersections would continue to operate with satisfactory LOS with minimal increases in V/C ratios with addition of traffic from the proposed project. The acceptable LOS at the intersections of Santa Anita Avenue/Garvey Avenue and Peck Road/Garvey Avenue is LOS E as this intersection contains two Major Arterials. At Santa Anita Avenue/Garvey Avenue, in the a.m. peak hour, the project increase in V/C is less than 0.010 V/C at LOS F (0.000, no increase); therefore, the project would not create a significant impact. The unsignalized intersection of Consol Avenue/Garvey Avenue is currently operating at LOS F without the project. With addition of project trips, the intersection would continue to operate at LOS F, however, due to the low minor street volumes, a traffic signal would also not be warranted per the Peak Hour Signal Warrant in the MUTCD. Appendix B contains the MUTCD Peak Hour Signal Warrant analysis for the Opening Year plus Project condition. In addition, the delayed southbound vehicles on Consol Avenue have access to the signalized intersections of Tyler Avenue/Garvey Avenue and Peck Road/Garvey Avenue via Concert Street to access Garvey Avenue. Re-routing of these delayed vehicles would also improve delays at the intersection. Because the proposed Project would not result in significant traffic impacts, no mitigation measures (such as street widening, lane additions, and/or traffic signal installation) are recommended.

Table XVI-5. Cumulative Projects Trip Generation Estimates

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
TRIP RATES								
Single-Family Detached Housing (ITE 210)	per DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Residential Condo/Townhouse (ITE 230)	per DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Apartment (ITE 220)	per DU	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Shopping Center (ITE 820)	per TSF	ITE	ITE equation used			ITE equation used		
High-Turnover (Sit-Down) Restaurant (ITE 932)	per TSF	127.15	5.95	4.86	10.81	5.91	3.94	9.85
Free-Standing Discount Superstore (ITE 813)	per TSF	50.75	1.04	0.81	1.85	2.13	2.22	4.35
General Office Building (ITE 1250)	per TSF	ITE	ITE equation used			ITE equation used		
General Light Industrial (ITE 110)	per TSF	6.97	0.81	0.11	0.92	0.12	0.85	0.97
TRIP GENERATION								
1. 11301-11401 Garvey Avenue								
Apartments	114 DUs	758	12	47	58	46	25	71
Shopping Center	5,400 TSF	1,019	16	10	26	41	44	85
Pass-by trips (91%)		-927	-15	-9	-24	-37	-40	-77
Total Trip Generation		850	13	47	61	50	29	78
2. 12432 Valley Boulevard								
General Office Building	30,000 TSF	526	64	9	73	19	93	112
Total Trip Generation		526	64	9	73	19	93	112
3. 11640 - 11710 Valley Boulevard								
Apartments	78 DUs	519	8	32	40	31	17	48
Shopping Center	30,000 TSF	3,105	46	28	75	128	139	267
Pass-by trips (55%)		-1,719	-26	-16	-41	-71	-77	-148
Total Trip Generation		1,905	29	45	73	89	79	168
4. Wal-Mart Superstore (4000 Arden Drive)								
Free-Standing Discount Superstore	182,429 TSF	9,258	189	148	337	389	405	794
Pass-by trips (28%)		-2,592	-53	-42	-94	-109	-113	-222
Total Trip Generation		6,666	136	107	243	280	291	571
5. Lawrence Equipment Improvement Project (12228 Chosen Street)								
Warehouse and Office Improvements ¹	31,409 TSF	12	11	1	12	2	11	13
Total Trip Generation		12	11	1	12	2	11	13
6. 12432 Valley Boulevard								
Shopping Center	29,928 TSF	3,100	46	28	75	128	139	267
Pass-by trips (55%)		-1,717	-26	-16	-41	-71	-77	-148
Total Trip Generation		1,383	21	13	33	57	62	119
7. Gateway TOD								
Apartments	485 DUs	3,225	49	198	247	195	105	301
Shopping Center	25,000 TSF	2,758	41	25	67	114	123	237
Pass-by trips (58%)		-1,609	-24	-15	-39	-66	-72	-138
Total Trip Generation		4,374	67	208	275	243	156	399
8. Santa Fe Trail Project (NEC of Valley Boulevard/Santa Anita Road)								
Shopping Center	115,000 TSF	7,437	105	65	170	316	342	658
Pass-by trips (37%)		-2,788	-39	-24	-64	-118	-128	-247
Total Trip Generation		4,649	66	40	106	197	214	411
9. Ramona Crossings								
Residential Condo/Townhouse	40 DUs	232	3	15	18	14	7	21
Total Trip Generation		232	3	15	18	14	7	21
10. 12417-12467 Denholm Drive								
Single-Family Detached Housing	62 DUs	590	12	35	47	39	23	62
Total Trip Generation		590	12	35	47	39	23	62
11. 9235 Whitmore Street								
General Office Building	60,000 TSF	890	112	15	127	25	121	146
Total Trip Generation		890	112	15	127	25	121	146
12. Media Center Project (9133 Garvey Avenue)								
Warehouse/Light Industrial/Office ²	96,659 TSF	541	78	11	89	10	70	80
Total Trip Generation		541	78	11	89	10	70	80
TOTAL CUMULATIVE PROJECTS TRIP GENERATION		22,619	611	546	1,157	1,025	1,156	2,181

Notes:

Trip generation rates based on *Trip Generation, 9th Edition*, Institute of Transportation Engineers (ITE), 2012.

Pass-by percentages for retail uses based on *Trip Generation Handbook, Second Edition*, ITE 2004.

¹ Trip generation estimates taken from Lawrence Equipment Improvement Project IS/MND, City of El Monte, May 20, 2014.

² Trip generation, distribution, and assignment taken from *El Monte Media Center Project Traffic Impact Analysis*, RBF Consulting, May 6, 2014.

Table XVI-6. Opening Year plus Project Intersection LOS Summary

Intersection	Control	Opening Year Baseline				Opening Year plus Project				Difference	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM	PM
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS		
1. Santa Anita Ave/ Garvey Ave	signal	1.021	F	0.869	D	1.021	F	0.870	D	0.000	+0.001
2. Tyler Avenue/ Garvey Avenue	signal	0.836	D	0.837	D	0.843	D	0.838	D	+0.007	+0.001
3. Consol Avenue/ Garvey Ave	1-way stop	150.8 sec	F	217.4 sec	F	166.3 sec	F	226.0 sec	F	+15.5 sec	+8.6 sec
4. Peck Road/ Garvey Avenue	signal	0.824	D	0.907	E	0.828	D	0.911	E	+0.004	+0.004
5. Tyler Avenue/ Dodson Street	1-way stop	20.2	C	17.1sec	C	20.3 sec	C	17.3 sec	C	+0.1 sec	+0.2 sec
6. Tyler Avenue/ Elliott Avenue	signal	0.566	A	0.679	B	0.566	A	0.681	B	0.000	+0.002

NOTES: LOS for signalized intersections based on *Intersection Capacity Utilization (ICU)*; LOS for unsignalized intersections based on *Highway Capacity Manual (HCM)*.

Bold value indicates intersection is operating with unsatisfactory LOS, at LOS E or F.

Bold value indicates significant project impact per the appropriate City's LOS significance criteria.

b. Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The Statewide CMP was created statewide by Proposition 111 and is implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprises the CMP system. Per CMP Transportation Impact Analysis Guidelines, a traffic impact analysis is conducted where:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed project will add 50 or more vehicle trips during either a.m. or p.m. weekday peak hours.
- At CMP mainline freeway-monitoring locations, where the project will add 150 or more trips, in either direction, during the either the a.m. or p.m. weekday peak hours.

The nearest CMP facilities to the project site are Rosemead Boulevard to the west, and I-10 to the north. However, based on the trip generation and distribution of the project, the project would not add 50 or more new project trips during the peak hour to CMP roadways/intersections, nor would it add 150 or more new project trips to CMP freeway mainline segments. Therefore, no significant impacts to CMP roadways are anticipated.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project is a multi-family residential mixed-use project that would be located approximately 1.35 miles south of the El Monte Airport. The Project site is not located within the airport planning area or any protected zone around the airport. Therefore, the

proposed Project has no potential to change air traffic patterns, including an increase in traffic levels or exposure to substantial safety risks. No impact would occur.

d. Would the project substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The proposed Project would remove three existing driveways (curb-cuts) on Garvey Avenue and replace them with curb-and-gutter which would allow for more on-street parking area in front of the project site. Two access driveways would be constructed on Tyler Avenue with the northernmost driveway (approximately 80 feet from Garvey Avenue) dedicated to the retail use of the Project and its six-space parking lot. The southernmost driveway (approximately 270 feet from Garvey Avenue) would provide one of two access driveways into the Project site. The other driveway on Consol Avenue would be located approximately 240 feet south of Garvey Avenue on the west side of the street. Both driveways are proposed to remain unsignalized and remain open with no gate controls. Due to the relatively low traffic volumes on Tyler Avenue and Consol Avenue, south of Garvey Avenue, the proposed driveways would be adequately spaced and would not create any vehicular queuing conflicts. The internal drive aisles of the Project would be designed to City standards with a minimum width of 28 feet. The drive aisles are designed so that vehicles could traverse the site and access both driveways on Tyler Avenue and Consol Avenue. Therefore, the proposed Project would not substantially increase hazards related to project design features. A less than significant impact would occur and no mitigation measures are required.

e. Would the project result in inadequate emergency access?

Less Than Significant Impact. The proposed Project would not substantively change the way in which emergency access is provided to the project site. As discussed above, the proposed Project would remove three existing driveways (curb-cuts) on Garvey Avenue and replace them with curb-and-gutter which would allow for more on-street parking area in front of the Project site. However, the drive aisles are designed so that emergency vehicles could traverse the site and access both driveways on Tyler Avenue and Consol Avenue. Because of this, emergency access would not be adversely affected. In addition, as part of the plan check process, the Project site plan would undergo a fire, life, and safety review by the Fire and Police Departments. Because of this, the proposed Project is not expected to result in significant impacts to emergency access. A less than significant impact would occur and no mitigation measures are required.

f. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Less Than Significant Impact. The proposed Project would not result in impediments to alternative transportation (i.e., existing bus stop), and would not adversely affect other alternative transportation uses, including bicycle use. Further, the proposed Project would be consistent with the land use designation for the project site in the El Monte General Plan Update (Mixed/Multi Use at 25.1 – 35.0 du/ac, 0 – 1.5 FAR), and would not conflict with plans or policies supporting alternative transportation.

There is an existing Foothill Transit and METRO bus stop located on the southeast corner of Tyler Avenue/Garvey Avenue, adjacent to the retail portion of the proposed project. This stop serves Foothill Transit Route 486 which provides service to Mt. San Antonio College and Cal Poly Pomona to the east, and the El Monte Bus Station to the west. This stop also serves METRO Route 176 which provides service to the west starting at Highland Park, South Pasadena, San Gabriel, and the Shops at Montebello. The proposed Project is not expected to relocate this bus stop. No mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS.					
Would the project:					
a.	Exceed wastewater treatment requirements of the applicable regional water quality control board?			X	
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?			X	
e.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g.	Comply with federal, state, and local statutes and regulations related to solid waste?				X

Discussion:

- a. Would the project exceed wastewater treatment requirements of the applicable regional water quality control board?**

Less Than Significant Impact. The proposed Project would not involve industrial processes that would require pretreatment prior to discharge to the sewer System. Wastewater generated by the proposed Project would be consistent in quality with wastewater generated in the County Sanitation District service areas by virtue of its land use type. The proposed Project is not expected to violate any wastewater quality standards of the Los Angeles County Sanitation District, which operates the water reclamation/treatment plants that would treat wastewater from the proposed Project. No mitigation is required.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. As stated in the El Monte General Plan, there is adequate wastewater treatment capacity at the Whittier Narrows Water Reclamation Plant (WRP). Therefore, no potential exists for the proposed Project to require the construction of new wastewater treatment facilities. Water supply is currently supplied by the City of El Monte. Impacts to water supply and the need for new water supply facilities are addressed under discussion XVII.d. below. Therefore, the Project's impact on water demand is considered to be less than significant.

c. Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. Runoff from the Project site appears to flow to Tyler Avenue, where it enters the local storm drain system. The Project site is currently 100 percent impervious and after development there will be landscaped areas that will reduce the site impervious surface to less than 100 percent. Runoff from the remaining portions of the Project site would be routed to catch basins, filtered, and discharged to an infiltration device. The proposed Project would discharge less runoff from the Project site than under existing conditions. The proposed Project would not require the construction of new stormwater drainage facilities that could in turn cause significant environmental impacts. No mitigation is required.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. Three water suppliers provide the majority of water to the City of El Monte; however, nine smaller water companies also serve portions of El Monte. The primary water providers are the City of El Monte, the San Gabriel Valley Water Company, and the California Americana Water. These three providers have completed Urban Water Management Plans and have demonstrated the ability to provide water to their respective service areas for the new 25 years. The Urban Water Management Plans have provisions for implementing water conservation measures within their service areas in the event of severe drought conditions.

The City of El Monte is the water supplier for the proposed Project. As shown in Table XVII-1, the Project's water demand would be approximately 14,326 gpd. The Project's water demand is not considered a substantial amount of water, and would incorporate low flow devices, and implement a smart irrigation system to minimize water consumption. The City of El Monte has

prepared an Urban Water Management Plan and has planned for water usage in their respective service area. Sufficient water supplies are expected to be available to serve the proposed Project and significant impacts to water supplies are not anticipated. No mitigation is required.

Table XVII-1. Project Water Demand

Land Use	Units or square feet	Per Unit or Square Foot	Total Water Generation (gpd)
Residential: High Density (14.1 – 25 units/acre)	70	195	13,650
Commercial: General Commercial, Neighborhood Commercial, and Downtown Core	2,154	0.25	538.5
Park or Open Space	0.85 acre	161.25	137.1
			14,325.6

Water generation rates obtained from the City of El Monte General Plan (City of El Monte 2011).

e. Has the wastewater treatment provider that serves or may serve the project determined that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

Less Than Significant Impact. As discussed in Checklist Item XVII.b. above, the proposed Project is not expected to result in significant impacts to existing water reclamation plant capacity, and no mitigation is required.

f. Is the project served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

Less Than Significant Impact with Mitigation Incorporated. The City is currently complying with AB 939 goals. Existing programs in the City for source reduction and recycling of solid waste include recycling, composting, household hazardous waste programs, public education, source reduction, special waste materials programs (for instance, for tires and for concrete/asphalt/rubble), and a waste to energy program.

Solid waste generation by the proposed Project is estimated to be approximately 392 pounds per day (0.196 tons per day) as shown in Table XVII-2. Solid waste is collected from commercial establishments in the City by private waste haulers, which dispose of the waste at one of the following landfills: Sunshine Canyon, Olinda Alpha, and El Sobrante. As shown in Table XVII-3, there is adequate landfill capacity and daily intake capacity at each of these landfills to accommodate solid waste generated by the proposed Project.

Table XVII-2. Project Solid Waste Generation

Land Use	Units or square feet	Per Unit or Square Foot*	Land Use	Total Solid Waste Generation (gpd)
Medium-Low Density, Medium Density, High Density	70	5.32	Multi-family residential	372.4
Commercial General	2,154	0.009	Commercial	19.38
				392

*SOURCE: City of El Monte 2011a.

Table XVII-3. Landfills to Serve the City of El Monte

Landfill	Closure Date	Approximate Remaining Capacity (tons)	Permitted Daily Intake Capacity (tons)	Average Daily Disposal Intake (tons)
Sunshine Canyon	12/31/2037	80,000,000	12,100	7,801
Olinda Alpha	12/31/2021	23,000,000*	8,000	7,680
El Sobrante	1/1/20145	144,000,000	10,000	5,281

SOURCES: Valley Hotel Project Initial Study, 2014.

*as of 2010 based on a conversion factor of 1,200 lb/cy of municipal solid waste (Los Angeles County 2013)

*Avg. daily intake unavailable, peak daily for March 2014 is used (CalRecycle 2014)

The proposed Project also includes the demolition of existing structures onsite. The demolition material will include a mix of wood, concrete, and steel. The following mitigation measure will be implemented.

UT- 1: The developer shall require that all material that can be recycled with the goal of recycling 50 percent of the demolition material.

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The proposed Project is not expected to conflict with state statutes and regulations regarding solid wastes. By contracting with a franchise waste hauler, wastes generated by the proposed Project would comply with solid waste diversion requirements, and would not result in significant solid waste impacts. No mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE					
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b.	Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X		

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE					
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion:

- a. **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant Impact With Mitigation Incorporated. The proposed Project could be implemented without causing any significant adverse environmental effects. This includes biological resources and cultural resources. No impacts are forecasted for biological resources as none occur on-site. Adequate mitigation has been provided to reduce potential impacts to any subsurface resources, accidentally exposed during construction to a level of non-significance or to reduce less than significant impacts to the greatest extent feasible. Since the proposed Project has not known significant cultural resources, the mitigation measures identified are contingency measures that will be implemented if certain conditions occur during construction activities at the Project site.

- b. **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less Than Significant With Mitigation Incorporated. The evaluation contained in this report determined that potential cumulative impacts to the environment can be reduced to a less than significant level with the implementation of identified mitigation measures. The CEQA resource areas for which mitigation has been provided are: Cultural Resource, Hazards and Hazardous Materials, and Population and Housing. Based on data provided in this document, it is concluded that the implementation of this Project will not result in impacts that are either individually or cumulatively considerable or significant when viewed in relation to past, present, or probable future projects.

- c. **Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?**

Less Than Significant Impacts with Mitigation Incorporation. The proposed Project will not result in any identifiable substantial adverse effects on human impact issues either directly or indirectly. This Project will result in additional jobs and housing within the community. The human impact issues for which mitigation has been provided are: Cultural Resource, Hazards

and Hazardous Materials, and Population and Housing. No substantial adverse effect to humans will result with implementation of the required mitigation measures.

Therefore, based on the findings in this Initial Study, the City of El Monte (City) will process a Mitigated Negative Declaration as the appropriate CEQA environmental determination for the Project. The City will issue a Notice of Intent to Adopt a Mitigated Negative Declaration (MND) and circulate the MND package for review for the required 20- day period as there is no State trustee or responsible agencies for the Project. Following receipt of comments, the City will compile responses to any comments and prepare a final MND package for consideration by the City Planning Commission and City Council. Based on the final MND package, the City will consider whether implementation of the Project as defined in this document can proceed as determined by the City at completion of the review process. If you or your agency comments on this proposed MND, you or your agency will be provided responses to comments and notified of the date of the City's final review and decision. A decision by the City to approve the Project MND would be based on all of the information available in the whole of the record before the City at the conclusion of the CEQA environmental review process for this proposed Project.

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- City of El Monte. 2008. Appendix A Notice of Preparation and Initial Study for the City of El Monte General Plan and Zoning Code Update Draft EIR. July.
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- . 2013. City of El Monte Housing Element Update. November.
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- Power Engineers. 2014. Cultural Resource Records Search Results for the City Ventures Mixed Use Project, City of El Monte, California. September.
- Stantec. 2013. Phase I Environmental Site Assessment. October.
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- U.S. Environmental Protection Agency (EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. March.

APPENDIX A

AIR QUALITY AND GREENHOUSE GAS TECHNICAL CALCULATIONS

City Ventures - Multi-Use Development South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	67.00	Dwelling Unit	4.19	67,000.00	192
Strip Mall	2.15	1000sqft	0.05	2,154.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2017
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction schedule provided by client. Landscaping included in site prep, paving included in building construction.

Trips and VMT -

Grading - Acres disturbed provided by site plan from applicant.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	45.00

tblConstructionPhase	NumDays	230.00	65.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	8.00	16.00
tblConstructionPhase	NumDays	5.00	64.00
tblConstructionPhase	PhaseEndDate	10/23/2015	8/21/2015
tblConstructionPhase	PhaseStartDate	8/22/2015	6/22/2015
tblGrading	AcresOfGrading	8.00	4.00
tblLandUse	LandUseSquareFeet	2,150.00	2,154.00
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	0.6782	3.7537	2.8410	3.2900e-003	0.6594	0.2189	0.8783	0.3528	0.2035	0.5563	0.0000	301.9994	301.9994	0.0759	0.0000	303.5928
Total	0.6782	3.7537	2.8410	3.2900e-003	0.6594	0.2189	0.8783	0.3528	0.2035	0.5563	0.0000	301.9994	301.9994	0.0759	0.0000	303.5928

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404
Energy	5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	234.0149	234.0149	5.3000e-003	1.8400e-003	234.6961
Mobile	0.3266	1.0039	3.7922	9.3200e-003	0.6353	0.0137	0.6490	0.1700	0.0126	0.1826	0.0000	720.7395	720.7395	0.0283	0.0000	721.3336
Waste						0.0000	0.0000		0.0000	0.0000	6.7149	0.0000	6.7149	0.3968	0.0000	15.0486
Water						0.0000	0.0000		0.0000	0.0000	1.4354	50.4463	51.8818	0.1486	3.7300e-003	56.1585
Total	0.8516	1.0623	4.9302	0.0103	0.6353	0.0851	0.7204	0.1700	0.0840	0.2540	15.2671	1,020.0052	1,035.2723	0.6014	6.0500e-003	1,049.7772

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404
Energy	5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	234.0149	234.0149	5.3000e-003	1.8400e-003	234.6961
Mobile	0.3266	1.0039	3.7922	9.3200e-003	0.6353	0.0137	0.6490	0.1700	0.0126	0.1826	0.0000	720.7395	720.7395	0.0283	0.0000	721.3336
Waste						0.0000	0.0000		0.0000	0.0000	6.7149	0.0000	6.7149	0.3968	0.0000	15.0486
Water						0.0000	0.0000		0.0000	0.0000	1.4354	50.4463	51.8818	0.1486	3.7200e-003	56.1562
Total	0.8516	1.0623	4.9302	0.0103	0.6353	0.0851	0.7204	0.1700	0.0840	0.2540	15.2671	1,020.0052	1,035.2723	0.6014	6.0400e-003	1,049.7749

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2015	1/30/2015	5	22	
2	Site Preparation	Site Preparation	1/31/2015	4/30/2015	5	64	
3	Grading	Grading	5/1/2015	5/22/2015	5	16	
4	Building Construction	Building Construction	5/23/2015	8/21/2015	5	65	
5	Architectural Coating	Architectural Coating	6/22/2015	8/21/2015	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 135,675; Residential Outdoor: 45,225; Non-Residential Indoor: 3,231; Non-Residential Outdoor: 1,077 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40

Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	49.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0496	0.5320	0.3968	4.4000e-004		0.0270	0.0270		0.0251	0.0251	0.0000	41.1854	41.1854	0.0112	0.0000	41.4199
Total	0.0496	0.5320	0.3968	4.4000e-004		0.0270	0.0270		0.0251	0.0251	0.0000	41.1854	41.1854	0.0112	0.0000	41.4199

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0112	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7567	1.7567	1.0000e-004	0.0000	1.7588
Total	7.4000e-004	1.0800e-003	0.0112	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7567	1.7567	1.0000e-004	0.0000	1.7588

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0496	0.5320	0.3968	4.4000e-004		0.0270	0.0270		0.0251	0.0251	0.0000	41.1854	41.1854	0.0112	0.0000	41.4198
Total	0.0496	0.5320	0.3968	4.4000e-004		0.0270	0.0270		0.0251	0.0251	0.0000	41.1854	41.1854	0.0112	0.0000	41.4198

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0112	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7567	1.7567	1.0000e-004	0.0000	1.7588
Total	7.4000e-004	1.0800e-003	0.0112	2.0000e-005	1.8100e-003	2.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	5.0000e-004	0.0000	1.7567	1.7567	1.0000e-004	0.0000	1.7588

3.3 Site Preparation - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5781	0.0000	0.5781	0.3178	0.0000	0.3178	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1684	1.8205	1.3642	1.2500e-003		0.0988	0.0988		0.0909	0.0909	0.0000	119.3636	119.3636	0.0356	0.0000	120.1119
Total	0.1684	1.8205	1.3642	1.2500e-003	0.5781	0.0988	0.6769	0.3178	0.0909	0.4087	0.0000	119.3636	119.3636	0.0356	0.0000	120.1119

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	3.7700e-003	0.0391	8.0000e-005	6.3200e-003	6.0000e-005	6.3800e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1325	6.1325	3.5000e-004	0.0000	6.1397
Total	2.5700e-003	3.7700e-003	0.0391	8.0000e-005	6.3200e-003	6.0000e-005	6.3800e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1325	6.1325	3.5000e-004	0.0000	6.1397

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2602	0.0000	0.2602	0.1430	0.0000	0.1430	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1684	1.8205	1.3642	1.2500e-003		0.0988	0.0988		0.0909	0.0909	0.0000	119.3634	119.3634	0.0356	0.0000	120.1118
Total	0.1684	1.8205	1.3642	1.2500e-003	0.2602	0.0988	0.3590	0.1430	0.0909	0.2339	0.0000	119.3634	119.3634	0.0356	0.0000	120.1118

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5700e-003	3.7700e-003	0.0391	8.0000e-005	6.3200e-003	6.0000e-005	6.3800e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1325	6.1325	3.5000e-004	0.0000	6.1397
Total	2.5700e-003	3.7700e-003	0.0391	8.0000e-005	6.3200e-003	6.0000e-005	6.3800e-003	1.6800e-003	5.0000e-005	1.7300e-003	0.0000	6.1325	6.1325	3.5000e-004	0.0000	6.1397

3.4 Grading - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0503	0.0000	0.0503	0.0267	0.0000	0.0267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3233	0.2134	2.4000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	22.7088	22.7088	6.7800e-003	0.0000	22.8511
Total	0.0307	0.3233	0.2134	2.4000e-004	0.0503	0.0186	0.0689	0.0267	0.0171	0.0439	0.0000	22.7088	22.7088	6.7800e-003	0.0000	22.8511

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.9000e-004	8.1500e-003	2.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2776	1.2776	7.0000e-005	0.0000	1.2791
Total	5.4000e-004	7.9000e-004	8.1500e-003	2.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2776	1.2776	7.0000e-005	0.0000	1.2791

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0226	0.0000	0.0226	0.0120	0.0000	0.0120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3233	0.2134	2.4000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	22.7087	22.7087	6.7800e-003	0.0000	22.8511
Total	0.0307	0.3233	0.2134	2.4000e-004	0.0226	0.0186	0.0413	0.0120	0.0171	0.0292	0.0000	22.7087	22.7087	6.7800e-003	0.0000	22.8511

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4000e-004	7.9000e-004	8.1500e-003	2.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2776	1.2776	7.0000e-005	0.0000	1.2791
Total	5.4000e-004	7.9000e-004	8.1500e-003	2.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2776	1.2776	7.0000e-005	0.0000	1.2791

3.5 Building Construction - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1189	0.9760	0.6092	8.7000e-004		0.0688	0.0688		0.0647	0.0647	0.0000	79.2982	79.2982	0.0199	0.0000	79.7160
Total	0.1189	0.9760	0.6092	8.7000e-004		0.0688	0.0688		0.0647	0.0647	0.0000	79.2982	79.2982	0.0199	0.0000	79.7160

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6100e-003	0.0266	0.0326	6.0000e-005	1.6000e-003	4.5000e-004	2.0500e-003	4.6000e-004	4.1000e-004	8.7000e-004	0.0000	5.1817	5.1817	4.0000e-005	0.0000	5.1825
Worker	7.1100e-003	0.0104	0.1082	2.1000e-004	0.0175	1.6000e-004	0.0176	4.6400e-003	1.4000e-004	4.7800e-003	0.0000	16.9548	16.9548	9.6000e-004	0.0000	16.9749
Total	9.7200e-003	0.0370	0.1408	2.7000e-004	0.0191	6.1000e-004	0.0197	5.1000e-003	5.5000e-004	5.6500e-003	0.0000	22.1364	22.1364	1.0000e-003	0.0000	22.1574

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1189	0.9760	0.6092	8.7000e-004		0.0688	0.0688		0.0647	0.0647	0.0000	79.2981	79.2981	0.0199	0.0000	79.7159
Total	0.1189	0.9760	0.6092	8.7000e-004		0.0688	0.0688		0.0647	0.0647	0.0000	79.2981	79.2981	0.0199	0.0000	79.7159

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6100e-003	0.0266	0.0326	6.0000e-005	1.6000e-003	4.5000e-004	2.0500e-003	4.6000e-004	4.1000e-004	8.7000e-004	0.0000	5.1817	5.1817	4.0000e-005	0.0000	5.1825
Worker	7.1100e-003	0.0104	0.1082	2.1000e-004	0.0175	1.6000e-004	0.0176	4.6400e-003	1.4000e-004	4.7800e-003	0.0000	16.9548	16.9548	9.6000e-004	0.0000	16.9749
Total	9.7200e-003	0.0370	0.1408	2.7000e-004	0.0191	6.1000e-004	0.0197	5.1000e-003	5.5000e-004	5.6500e-003	0.0000	22.1364	22.1364	1.0000e-003	0.0000	22.1574

3.6 Architectural Coating - 2015**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2870					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1500e-003	0.0578	0.0428	7.0000e-005		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	5.7448	5.7448	7.5000e-004	0.0000	5.7605
Total	0.2961	0.0578	0.0428	7.0000e-005		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	5.7448	5.7448	7.5000e-004	0.0000	5.7605

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	1.4700e-003	0.0153	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3955	2.3955	1.4000e-004	0.0000	2.3983
Total	1.0000e-003	1.4700e-003	0.0153	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3955	2.3955	1.4000e-004	0.0000	2.3983

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2870					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1500e-003	0.0578	0.0428	7.0000e-005		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	5.7448	5.7448	7.5000e-004	0.0000	5.7605
Total	0.2961	0.0578	0.0428	7.0000e-005		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	5.7448	5.7448	7.5000e-004	0.0000	5.7605

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	1.4700e-003	0.0153	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3955	2.3955	1.4000e-004	0.0000	2.3983
Total	1.0000e-003	1.4700e-003	0.0153	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.3955	2.3955	1.4000e-004	0.0000	2.3983

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3266	1.0039	3.7922	9.3200e-003	0.6353	0.0137	0.6490	0.1700	0.0126	0.1826	0.0000	720.7395	720.7395	0.0283	0.0000	721.3336
Unmitigated	0.3266	1.0039	3.7922	9.3200e-003	0.6353	0.0137	0.6490	0.1700	0.0126	0.1826	0.0000	720.7395	720.7395	0.0283	0.0000	721.3336

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	441.53	479.72	406.69	1,510,410	1,510,410
Strip Mall	95.29	90.39	43.92	166,002	166,002
Total	536.82	570.11	450.61	1,676,412	1,676,412

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.512163	0.060173	0.180257	0.139094	0.042244	0.006664	0.016017	0.031880	0.001940	0.002497	0.004356	0.000592	0.002122

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	182.3125	182.3125	4.3100e-003	8.9000e-004	182.6791
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	182.3125	182.3125	4.3100e-003	8.9000e-004	182.6791
NaturalGas Mitigated	5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	51.7024	51.7024	9.9000e-004	9.5000e-004	52.0170
NaturalGas Unmitigated	5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	51.7024	51.7024	9.9000e-004	9.5000e-004	52.0170

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	3661.8	2.0000e-005	1.8000e-004	1.5000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1954	0.1954	0.0000	0.0000	0.1966
Condo/Townhouse	965204	5.2000e-003	0.0445	0.0189	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003	0.0000	51.5070	51.5070	9.9000e-004	9.4000e-004	51.8204
Total		5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	51.7024	51.7024	9.9000e-004	9.4000e-004	52.0170

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	3661.8	2.0000e-005	1.8000e-004	1.5000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1954	0.1954	0.0000	0.0000	0.1966
Condo/Townhouse	965204	5.2000e-003	0.0445	0.0189	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003	0.0000	51.5070	51.5070	9.9000e-004	9.4000e-004	51.8204
Total		5.2200e-003	0.0447	0.0191	2.8000e-004		3.6100e-003	3.6100e-003		3.6100e-003	3.6100e-003	0.0000	51.7024	51.7024	9.9000e-004	9.4000e-004	52.0170

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Condo/Townhouse	294658		164.1132	3.8800e-003	8.0000e-004	164.4431
Strip Mall	32676.2		18.1994	4.3000e-004	9.0000e-005	18.2360
Total			182.3125	4.3100e-003	8.9000e-004	182.6791

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Condo/Townhouse	294658		164.1132	3.8800e-003	8.0000e-004	164.4431
Strip Mall	32676.2		18.1994	4.3000e-004	9.0000e-005	18.2360
Total			182.3125	4.3100e-003	8.9000e-004	182.6791

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404
Unmitigated	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2195	5.5700e-003	0.4210	6.7000e-004		0.0640	0.0640		0.0640	0.0640	7.1167	13.6758	20.7925	0.0212	4.8000e-004	21.3879
Landscaping	0.0217	8.1400e-003	0.6979	4.0000e-005		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003	0.0000	1.1287	1.1287	1.1300e-003	0.0000	1.1525
Total	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.2195	5.5700e-003	0.4210	6.7000e-004		0.0640	0.0640		0.0640	0.0640	7.1167	13.6758	20.7925	0.0212	4.8000e-004	21.3879
Landscaping	0.0217	8.1400e-003	0.6979	4.0000e-005		3.7900e-003	3.7900e-003		3.7900e-003	3.7900e-003	0.0000	1.1287	1.1287	1.1300e-003	0.0000	1.1525
Total	0.5198	0.0137	1.1189	7.1000e-004		0.0678	0.0678		0.0678	0.0678	7.1167	14.8045	21.9212	0.0224	4.8000e-004	22.5404

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e	
Category	tons/yr	MT/yr			
Mitigated	51.8818	0.1486	3.7200e-003	56.1562	
Unmitigated	51.8818	0.1486	3.7300e-003	56.1585	

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Condo/Townhouse	4.36532 / 2.75205		50.0723	0.1434	3.6000e-003	54.1985
Strip Mall	0.159256 / 0.0976085		1.8095	5.2300e-003	1.3000e-004	1.9600
Total			51.8818	0.1486	3.7300e-003	56.1585

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Condo/Townhouse	4.36532 / 2.75205		50.0723	0.1434	3.5900e-003	54.1963
Strip Mall	0.159256 / 0.0976085		1.8095	5.2300e-003	1.3000e-004	1.9599
Total			51.8818	0.1486	3.7200e-003	56.1562

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		6.7149	0.3968	0.0000	15.0486
Unmitigated		6.7149	0.3968	0.0000	15.0486

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Condo/Townhouse	30.82		6.2562	0.3697	0.0000	14.0205
Strip Mall	2.26		0.4588	0.0271	0.0000	1.0281
Total			6.7149	0.3968	0.0000	15.0486

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Condo/Townhouse	30.82		6.2562	0.3697	0.0000	14.0205
Strip Mall	2.26		0.4588	0.0271	0.0000	1.0281
Total			6.7149	0.3968	0.0000	15.0486

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Vegetation

APPENDIX B
TRAFFIC – TRIP GENERATION

2014 DAILY AND PEAK HOUR TRAFFIC COUNTS

ITM Peak Hour Summary

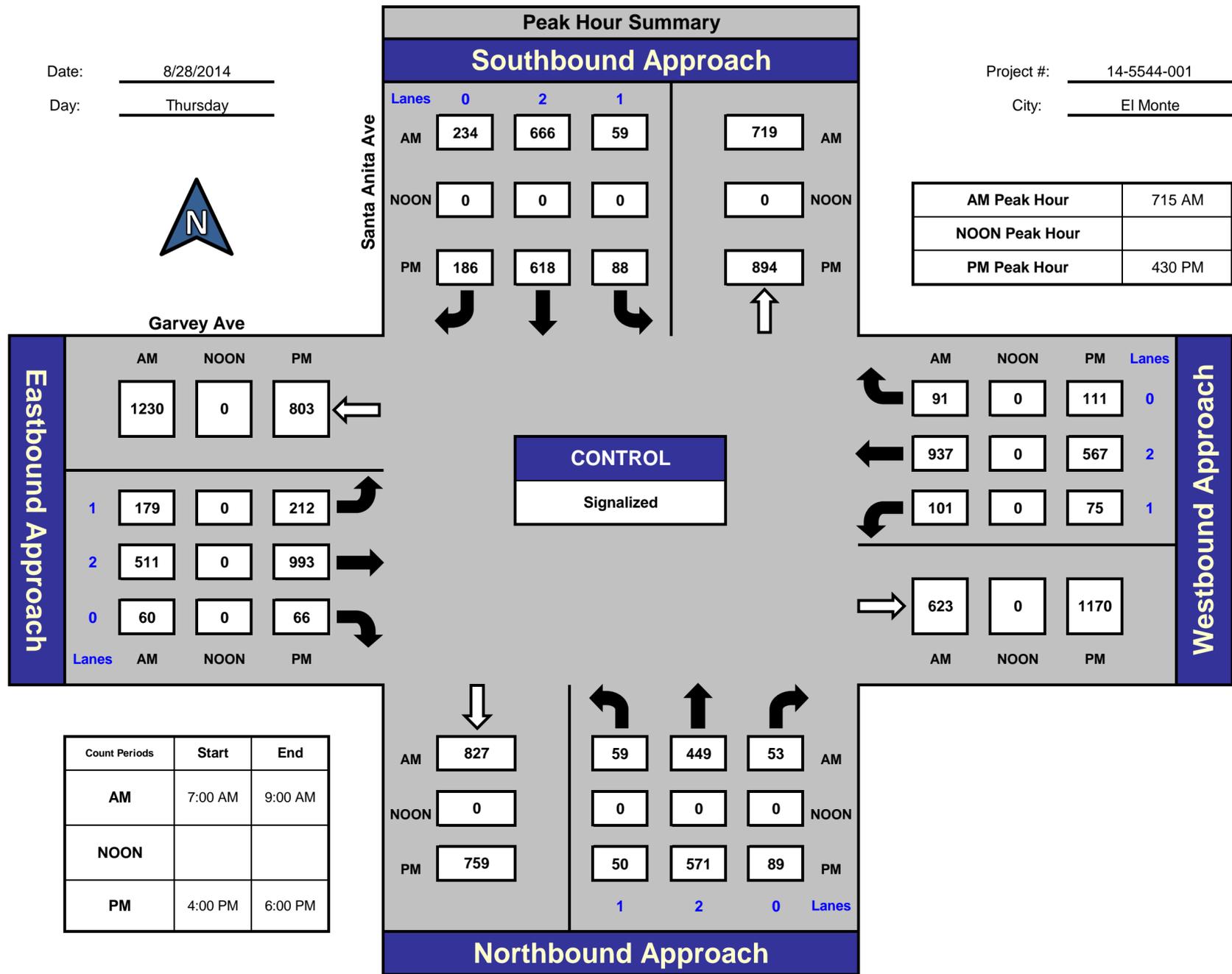
Prepared by:



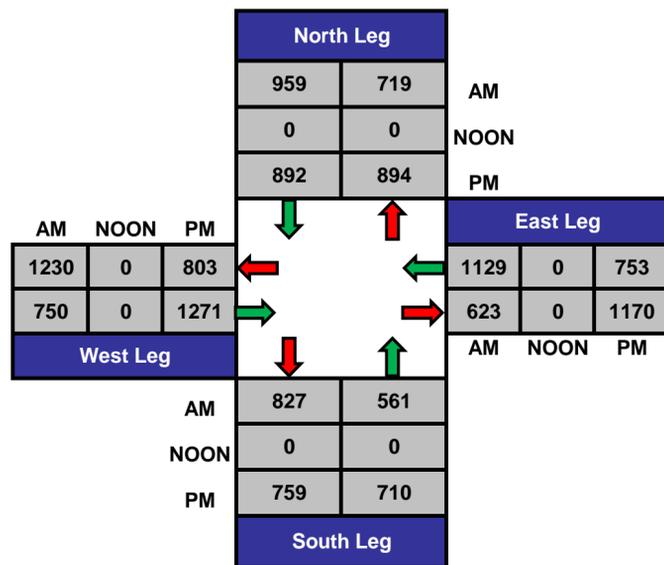
Santa Anita Ave and Garvey Ave, El Monte

Date: 8/28/2014
Day: Thursday

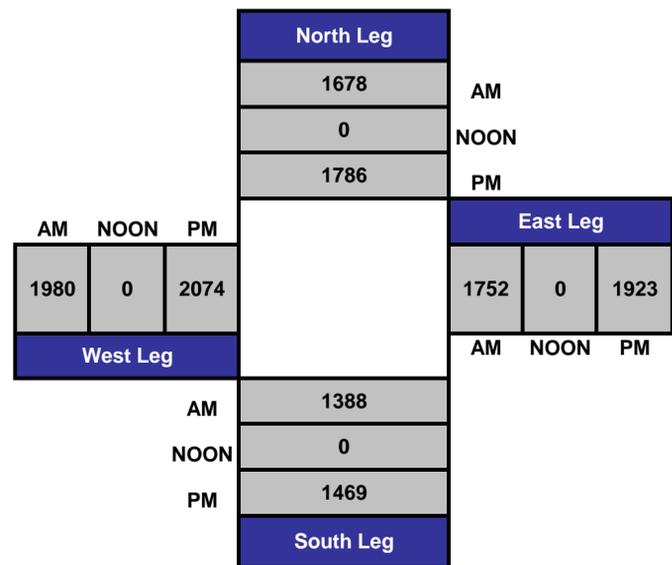
Project #: 14-5544-001
City: El Monte



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



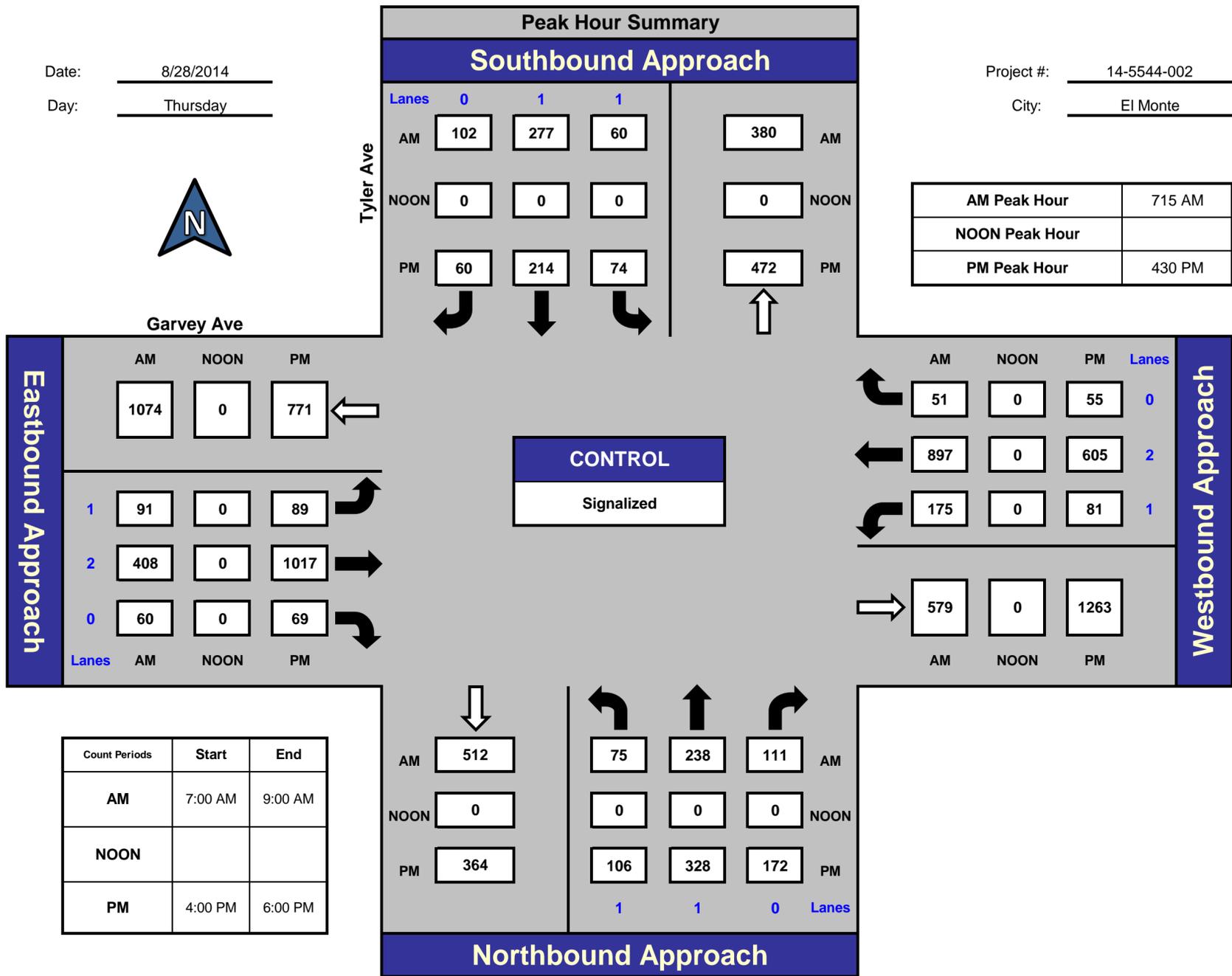
Tyler Ave and Garvey Ave, El Monte

Date: 8/28/2014

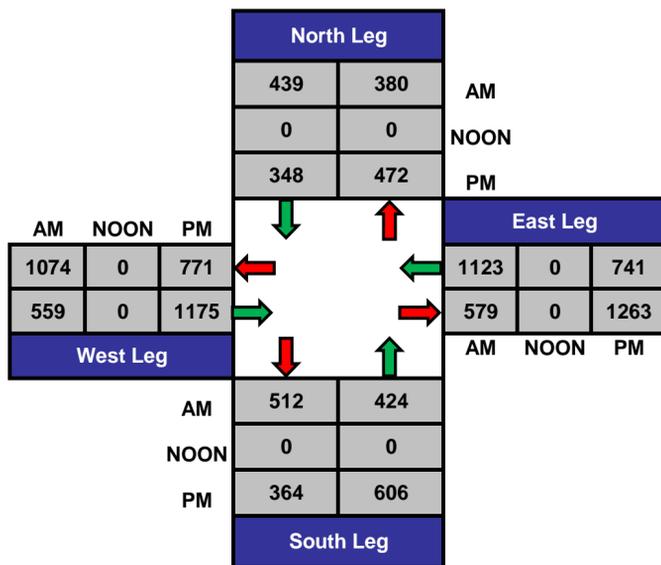
Day: Thursday

Project #: 14-5544-002

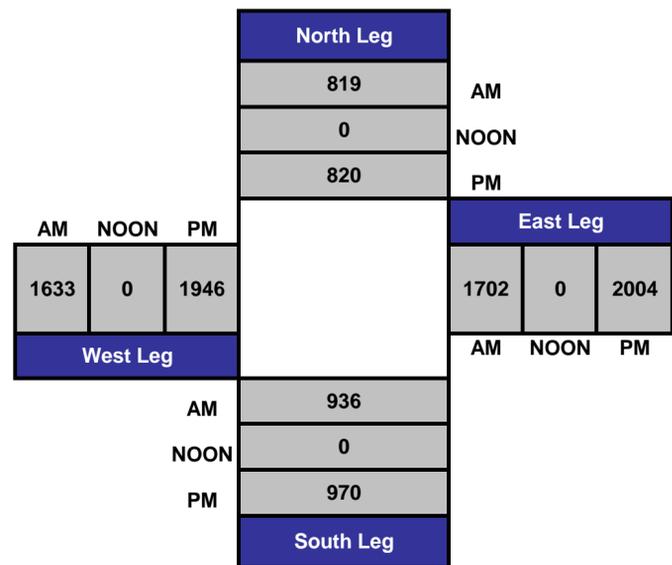
City: El Monte



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



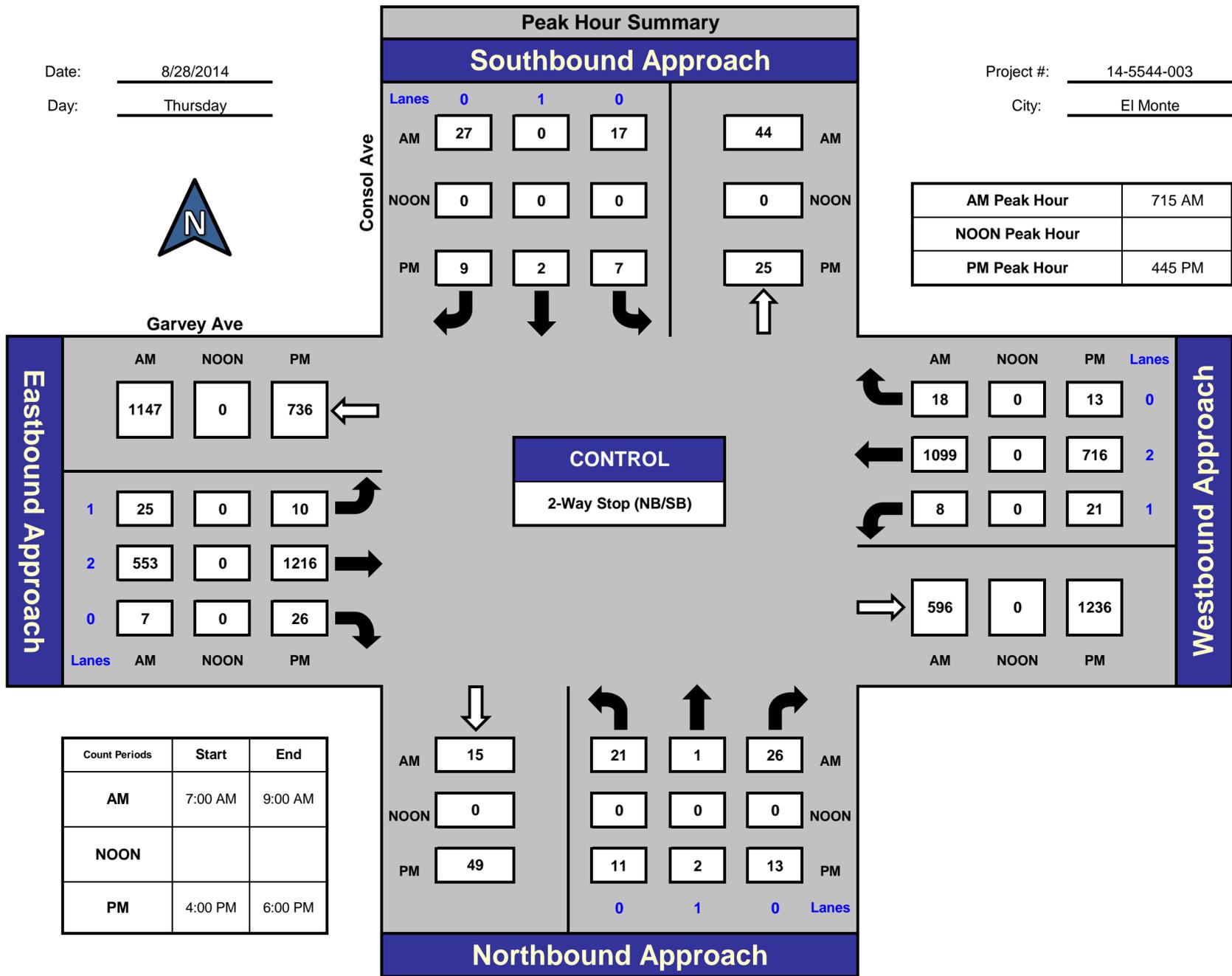
Consol Ave and Garvey Ave, El Monte

Date: 8/28/2014

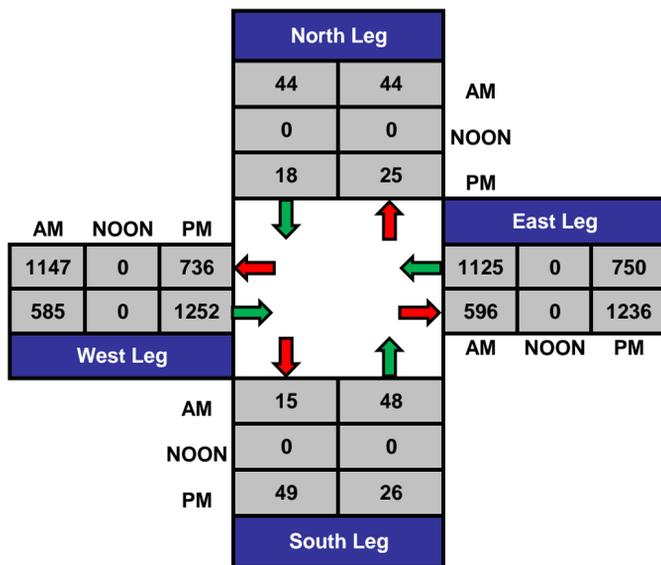
Day: Thursday

Project #: 14-5544-003

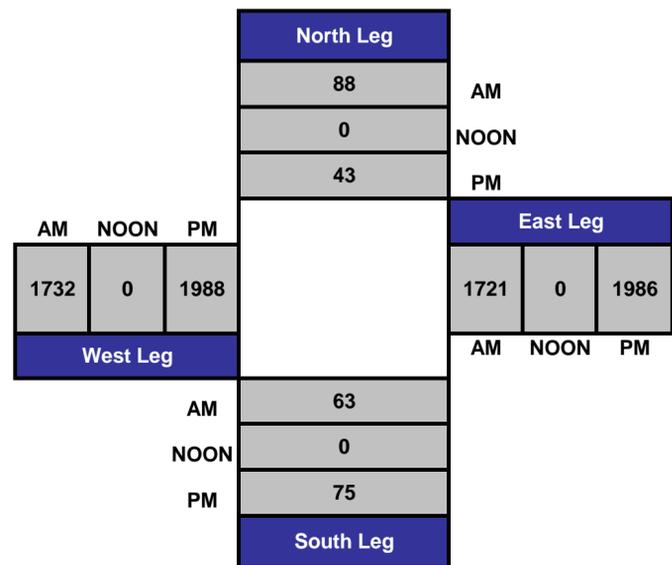
City: El Monte



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



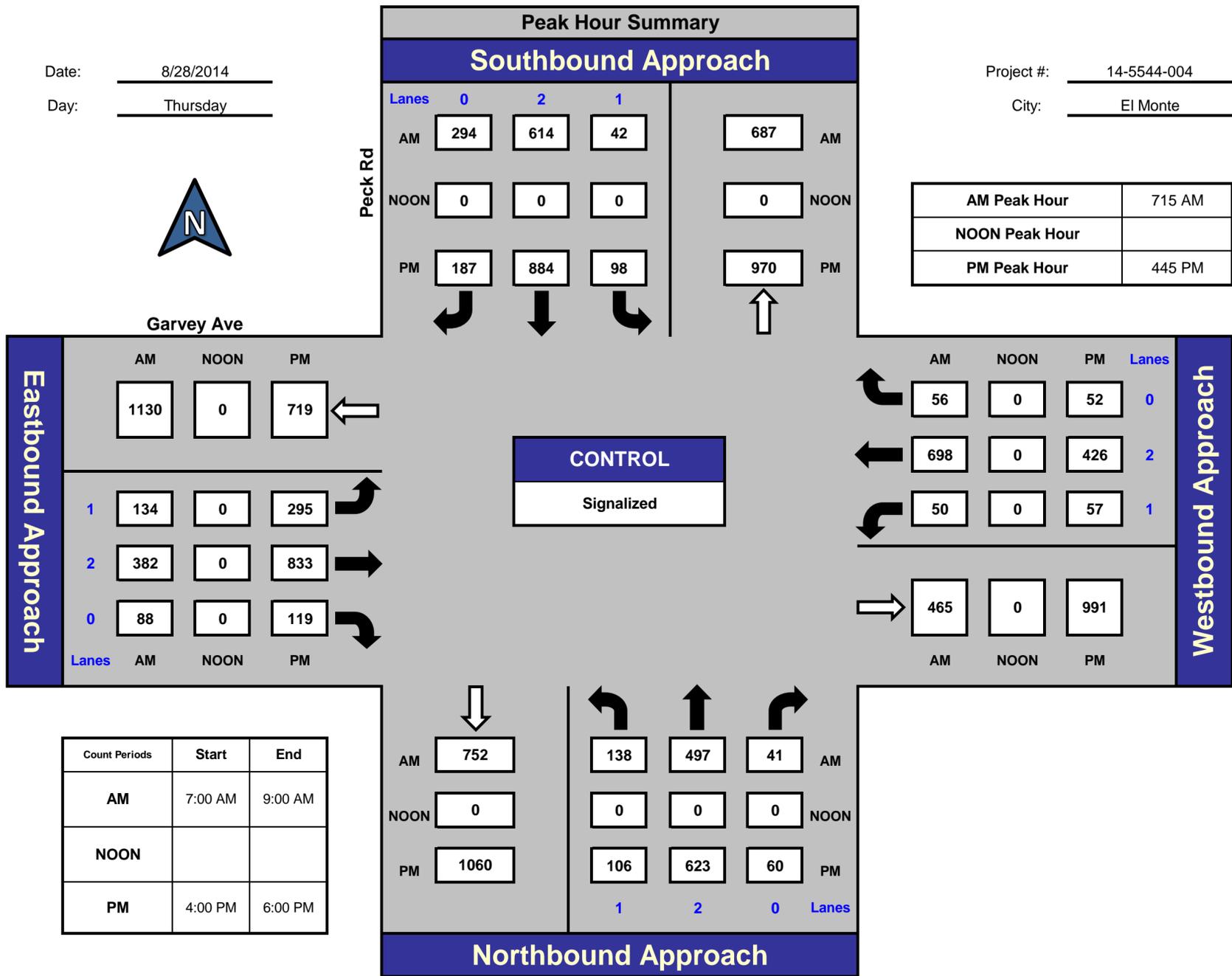
Peck Rd and Garvey Ave, El Monte

Date: 8/28/2014

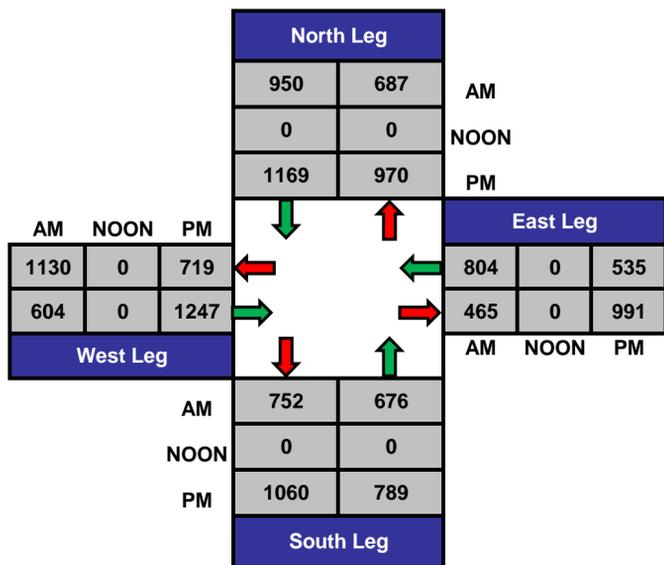
Day: Thursday

Project #: 14-5544-004

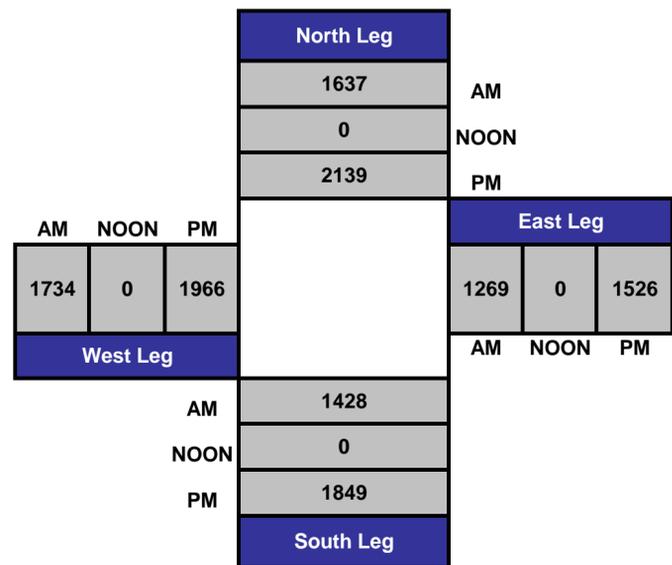
City: El Monte



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

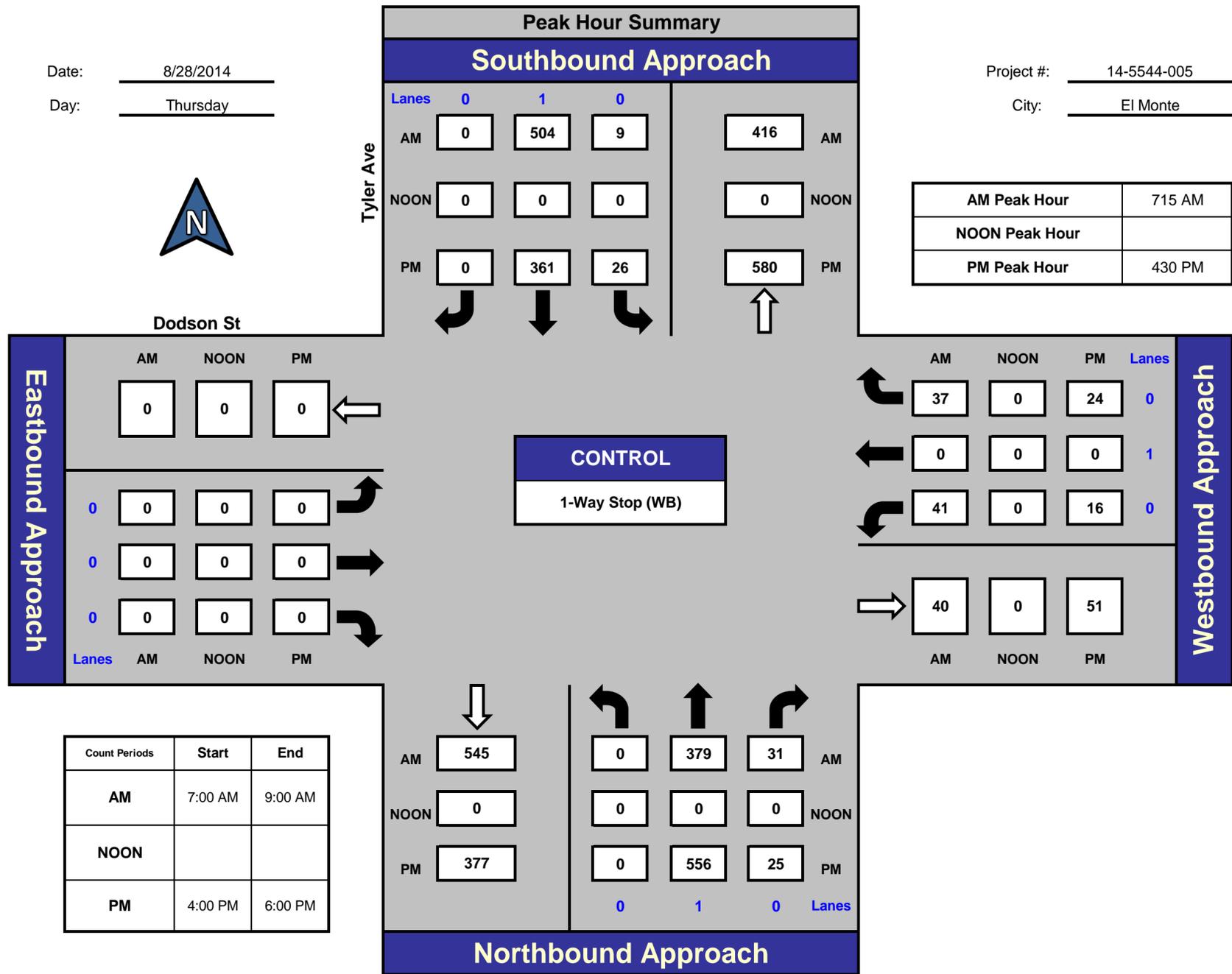
Prepared by:



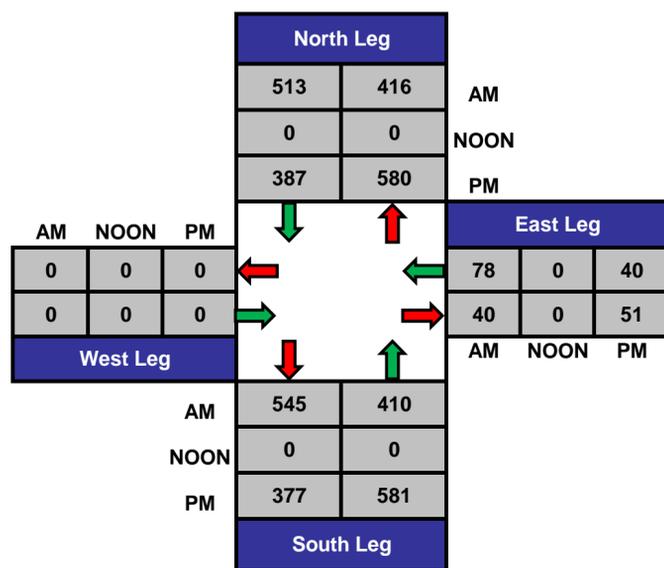
Tyler Ave and Dodson St, El Monte

Date: 8/28/2014
Day: Thursday

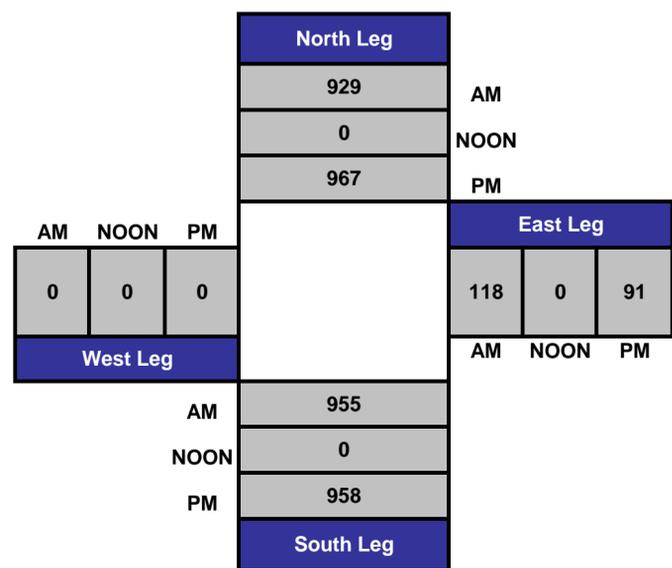
Project #: 14-5544-005
City: El Monte



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



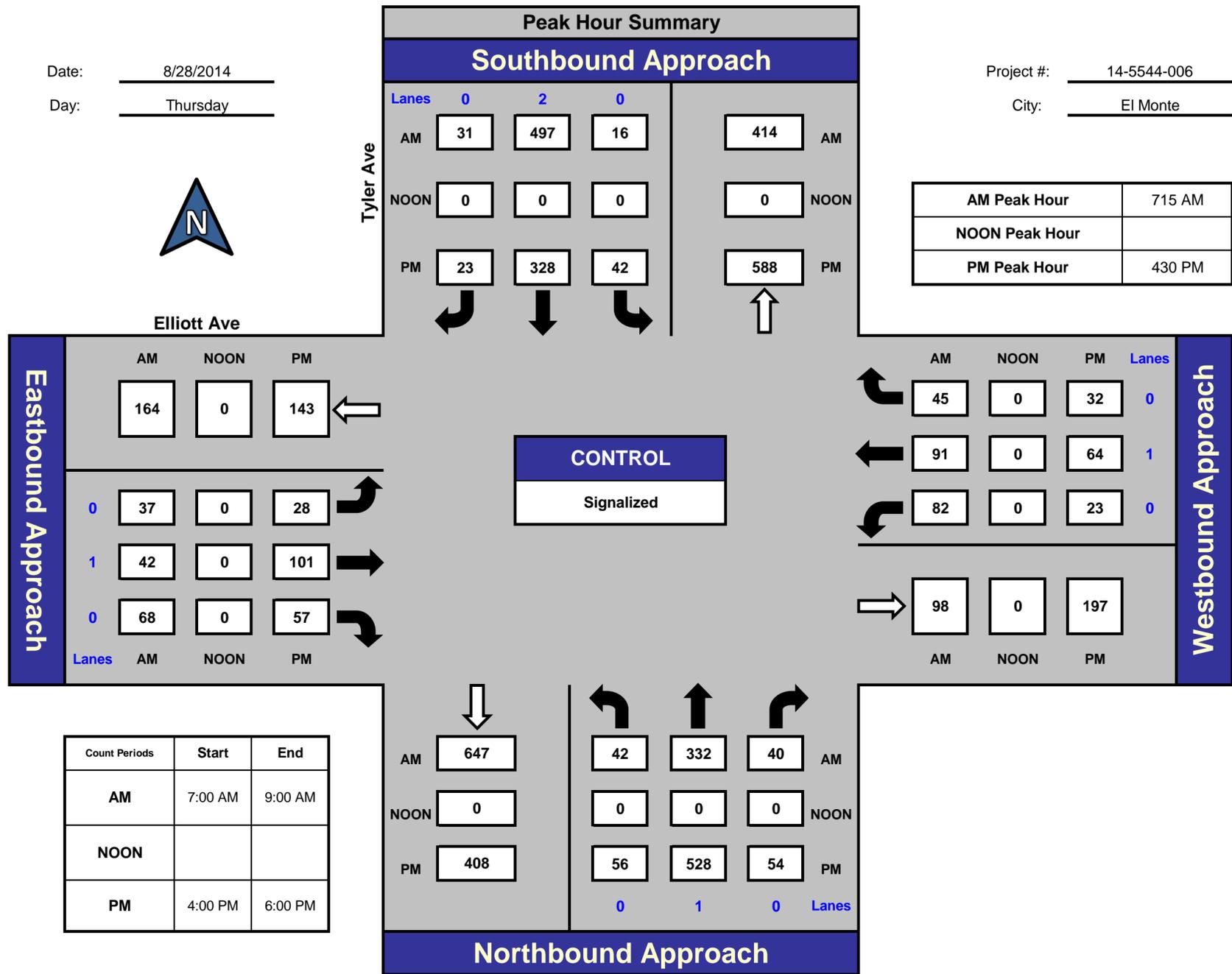
Tyler Ave and Elliott Ave, El Monte

Date: 8/28/2014

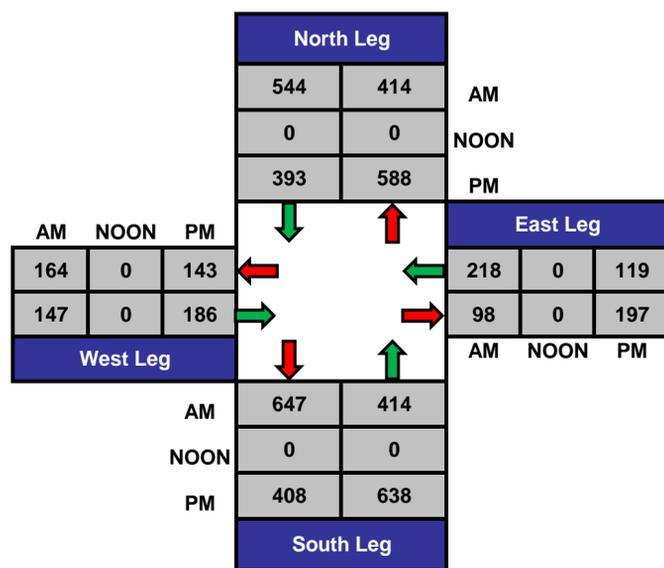
Day: Thursday

Project #: 14-5544-006

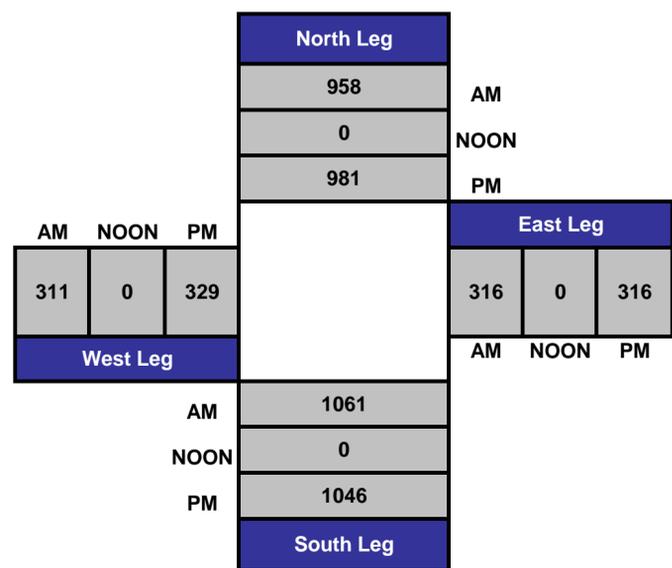
City: El Monte



Total Ins & Outs



Total Volume Per Leg



VOLUME

Garvey Ave Bet. Tyler Ave & Consol Ave

Day: Thursday
Date: 8/28/2014

City: El Monte
Project #: CA14_5545_001

DAILY TOTALS					NB	SB	EB	WB	Total					
					0	0	12,632	12,268	24,900					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			23	32	55	12:00			185	157	342			
00:15			19	19	38	12:15			203	189	392			
00:30			26	24	50	12:30			213	188	401			
00:45			27	95	21	96	12:45		180	781	168	702	348	1483
01:00			20	9	29	13:00			181	142	323			
01:15			7	11	18	13:15			203	181	384			
01:30			19	15	34	13:30			209	144	353			
01:45			19	65	12	47	13:45		184	777	178	645	362	1422
02:00			17	16	33	14:00			191	199	390			
02:15			15	18	33	14:15			213	168	381			
02:30			15	10	25	14:30			213	166	379			
02:45			13	60	17	61	14:45		243	860	197	730	440	1590
03:00			15	12	27	15:00			238	189	427			
03:15			10	10	20	15:15			226	186	412			
03:30			15	21	36	15:30			246	148	394			
03:45			20	60	22	65	15:45		233	943	192	715	425	1658
04:00			17	19	36	16:00			253	154	407			
04:15			27	22	49	16:15			283	171	454			
04:30			29	37	66	16:30			305	171	476			
04:45			32	105	38	116	16:45		309	1150	199	695	508	1845
05:00			37	54	91	17:00			298	184	482			
05:15			53	66	119	17:15			324	180	504			
05:30			74	80	154	17:30			283	166	449			
05:45			73	237	113	313	17:45		284	1189	194	724	478	1913
06:00			74	102	176	18:00			252	194	446			
06:15			73	112	185	18:15			272	185	457			
06:30			85	155	240	18:30			249	134	383			
06:45			93	325	186	555	18:45		251	1024	146	659	397	1683
07:00			110	236	346	19:00			217	140	357			
07:15			130	275	405	19:15			192	139	331			
07:30			143	317	460	19:30			173	151	324			
07:45			148	531	298	1126	19:45		184	766	138	568	322	1334
08:00			150	257	407	20:00			182	107	289			
08:15			113	228	341	20:15			161	125	286			
08:30			130	223	353	20:30			132	125	257			
08:45			139	532	252	960	20:45		128	603	119	476	247	1079
09:00			131	219	350	21:00			131	109	240			
09:15			114	199	313	21:15			116	104	220			
09:30			111	184	295	21:30			78	88	166			
09:45			103	459	193	795	21:45		99	424	95	396	194	820
10:00			106	159	265	22:00			81	75	156			
10:15			123	163	286	22:15			86	80	166			
10:30			155	180	335	22:30			64	52	116			
10:45			144	528	185	687	22:45		52	283	70	277	122	560
11:00			172	135	307	23:00			55	47	102			
11:15			141	180	321	23:15			58	63	121			
11:30			148	181	329	23:30			49	38	87			
11:45			182	643	176	672	23:45		30	192	40	188	70	380
TOTALS			3640	5493	9133	TOTALS			8992	6775	15767			
SPLIT %			39.9%	60.1%	36.7%	SPLIT %			57.0%	43.0%	63.3%			

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	12,632	12,268	24,900

AM Peak Hour	11:45	07:15	07:15	PM Peak Hour	16:30	17:30	16:30				
AM Pk Volume	783	1147	1718	PM Pk Volume	1236	739	1970				
Pk Hr Factor	0.919	0.905	0.934	Pk Hr Factor	0.954	0.952	0.969				
7 - 9 Volume	0	0	1063	2086	3149	4 - 6 Volume	0	0	2339	1419	3758
7 - 9 Peak Hour			07:15	07:15	07:15	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	571	1147	1718	4 - 6 Pk Volume	0	0	1236	734	1970
Pk Hr Factor	0.000	0.000	0.952	0.905	0.934	Pk Hr Factor	0.000	0.000	0.954	0.922	0.969

VOLUME

Tyler Ave Bet. Garvey Ave & Dodson St

Day: Thursday
Date: 8/28/2014

City: El Monte
Project #: CA14_5545_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					6,692	5,857	0	0	12,549		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	9	10			19	12:00	103	83			186
00:15	10	9			19	12:15	106	85			191
00:30	8	1			9	12:30	90	106			196
00:45	8	35	10	30	18	12:45	104	403	100	374	204
					65						777
01:00	3	7			10	13:00	117	86			203
01:15	6	3			9	13:15	107	93			200
01:30	7	7			14	13:30	108	96			204
01:45	6	22	7	24	13	13:45	124	456	108	383	232
					46						839
02:00	8	2			10	14:00	125	88			213
02:15	2	5			7	14:15	135	98			233
02:30	1	5			6	14:30	110	84			194
02:45	3	14	3	15	6	14:45	120	490	97	367	217
					29						857
03:00	5	5			10	15:00	125	94			219
03:15	4	3			7	15:15	107	89			196
03:30	6	6			12	15:30	130	99			229
03:45	10	25	11	25	21	15:45	135	497	116	398	251
					50						895
04:00	2	3			5	16:00	122	89			211
04:15	4	10			14	16:15	130	88			218
04:30	12	12			24	16:30	155	99			254
04:45	6	24	9	34	15	16:45	153	560	97	373	250
					58						933
05:00	12	15			27	17:00	153	93			246
05:15	15	26			41	17:15	144	100			244
05:30	22	31			53	17:30	137	91			228
05:45	21	70	34	106	55	17:45	119	553	113	397	232
					176						950
06:00	33	32			65	18:00	132	112			244
06:15	47	32			79	18:15	98	127			225
06:30	55	54			109	18:30	124	78			202
06:45	59	194	77	195	136	18:45	109	463	81	398	190
					389						861
07:00	66	95			161	19:00	101	71			172
07:15	90	99			189	19:15	100	69			169
07:30	117	148			265	19:30	81	69			150
07:45	95	368	142	484	237	19:45	74	356	62	271	136
					852						627
08:00	104	130			234	20:00	100	52			152
08:15	92	95			187	20:15	64	58			122
08:30	82	92			174	20:30	64	50			114
08:45	102	380	117	434	219	20:45	49	277	33	193	82
					814						470
09:00	88	100			188	21:00	62	45			107
09:15	75	105			180	21:15	42	42			84
09:30	83	92			175	21:30	40	41			81
09:45	115	361	91	388	206	21:45	50	194	48	176	98
					749						370
10:00	90	81			171	22:00	48	20			68
10:15	82	79			161	22:15	35	36			71
10:30	97	83			180	22:30	29	20			49
10:45	99	368	90	333	189	22:45	23	135	24	100	47
					701						235
11:00	99	85			184	23:00	14	9			23
11:15	90	78			168	23:15	24	20			44
11:30	99	76			175	23:30	16	6			22
11:45	89	377	76	315	165	23:45	16	70	9	44	25
					692						114
TOTALS	2238	2383			4621	TOTALS	4454	3474			7928
SPLIT %	48.4%	51.6%			36.8%	SPLIT %	56.2%	43.8%			63.2%

DAILY TOTALS					NB	SB	EB	WB	Total
					6,692	5,857	0	0	12,549

AM Peak Hour	07:30	07:15		07:15	PM Peak Hour	16:30	17:30		16:30		
AM Pk Volume	408	519		925	PM Pk Volume	605	443		994		
Pk Hr Factor	0.872	0.877		0.873	Pk Hr Factor	0.976	0.872		0.978		
7 - 9 Volume	748	918	0	0	1666	4 - 6 Volume	1113	770	0	0	1883
7 - 9 Peak Hour	07:30	07:15		07:15	4 - 6 Peak Hour	16:30	17:00			16:30	
7 - 9 Pk Volume	408	519	0	0	925	4 - 6 Pk Volume	605	397	0	0	994
Pk Hr Factor	0.872	0.877	0.000	0.000	0.873	Pk Hr Factor	0.976	0.878	0.000	0.000	0.978

INTERSECTION LEVEL OF SERVICE WORKSHEETS

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	E	xxxxx 0.929	E	xxxxx 0.929	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	C	xxxxx 0.773	C	xxxxx 0.773	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F	73.6 0.553	F	73.6 0.553	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	C	xxxxx 0.762	C	xxxxx 0.762	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C	18.5 0.272	C	18.5 0.272	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	A	xxxxx 0.542	A	xxxxx 0.542	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.929
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 117 Level Of Service: E

Table with columns for Street Name (Santa Anita Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.773
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: C

Table with columns for Street Name (Tyler Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: F[73.6]

Table with columns for Street Name (Consol Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and various movement categories.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movement categories.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.762
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C [18.5]

Street Name:	Tyler Avenue				Dodson Street															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign													
Rights:	Include		Include		Include		Include													
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	379	31	9	504	0	0	0	0	41	0	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	379	31	9	504	0	0	0	0	41	0	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.84	0.84	0.84	1.00	1.00	1.00	0.61	0.61	0.61
PHF Volume:	0	444	36	11	597	0	0	0	0	67	0	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	444	36	11	597	0	0	0	0	67	0	61

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	480	xxxx	xxxxx	xxxx	xxxx	xxxxx	1062	xxxx	444
Potent Cap.:	xxxx	xxxx	xxxxx	1093	xxxx	xxxxx	xxxx	xxxx	xxxxx	250	xxxx	618
Move Cap.:	xxxx	xxxx	xxxxx	1093	xxxx	xxxxx	xxxx	xxxx	xxxxx	248	xxxx	618
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.27	xxxx	0.10

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.1	xxxx	0.3
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	24.9	xxxx	11.5
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			18.5		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.542
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Table with columns for Street Name (Tyler Avenue, Elliott Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	C	xxxxx 0.785	C	xxxxx 0.785	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	C	xxxxx 0.762	C	xxxxx 0.762	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F	87.9 0.427	F	87.9 0.427	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	D	xxxxx 0.812	D	xxxxx 0.812	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C	15.9 0.089	C	15.9 0.089	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	B	xxxxx 0.647	B	xxxxx 0.647	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

Table with columns for Street Name (Santa Anita Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.762
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Table with columns for Street Name (Tyler Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: F[87.9]

Table with columns for Street Name (Consol Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and values for different movements.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movements.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.812
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: D

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C [15.9]

Street Name: Tyler Avenue Dodson Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 1 0 1 0 0 0 0 0 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 0 556 25 26 361 0 0 0 0 16 0 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 556 25 26 361 0 0 0 0 16 0 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.95 0.95 0.95 1.00 1.00 1.00 0.71 0.71 0.71
PHF Volume: 0 605 27 27 380 0 0 0 0 22 0 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 605 27 27 380 0 0 0 0 22 0 34

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxxx xxxxxx xxxx xxxxxx 6.4 xxxx 6.2
FollowUpTim:xxxxx xxxx xxxxxx 2.2 xxxx xxxxxx xxxxxx xxxx xxxxxx 3.5 xxxx 3.3

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxxx 632 xxxx xxxxxx xxxx xxxx xxxxxx 1040 xxxx 605
Potent Cap.: xxxx xxxx xxxxxx 960 xxxx xxxxxx xxxx xxxx xxxxxx 257 xxxx 501
Move Cap.: xxxx xxxx xxxxxx 960 xxxx xxxxxx xxxx xxxx xxxxxx 252 xxxx 501
Volume/Cap: xxxx xxxx xxxx 0.03 xxxx xxxx xxxx xxxx xxxx 0.09 xxxx 0.07

Level of Service Module:
2Way95thQ: xxxx xxxx xxxxxx 0.1 xxxx xxxxxx xxxx xxxx xxxxxx 0.3 xxxx 0.2
Control Del:xxxxx xxxx xxxxxx 8.9 xxxx xxxxxx xxxxxx xxxx xxxxxx 20.7 xxxx 12.7
LOS by Move: * * * A * * * * * C * B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx xxxx xxxxxx 0.1 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shrd ConDel:xxxxx xxxx xxxxxx 8.9 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 15.9
ApproachLOS: * * * C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Table with columns for Street Name (Tyler Avenue, Elliott Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	E xxxxx	0.930	E xxxxx	0.930	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	C xxxxx	0.781	C xxxxx	0.781	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F 79.7	0.580	F 79.7	0.580	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	C xxxxx	0.766	C xxxxx	0.766	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C 18.6	0.274	C 18.6	0.274	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	A xxxxx	0.543	A xxxxx	0.543	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.930
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 118 Level Of Service: E

Table with columns for Street Name (Santa Anita Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.781
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

Street Name:	Tyler Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	1

Volume Module:

Base Vol:	86	239	111	60	277	102	91	408	63	175	897	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	239	111	60	277	102	91	408	63	175	897	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.77	0.77	0.77	0.92	0.92	0.92	0.84	0.84	0.84
PHF Volume:	94	261	121	78	361	133	99	444	69	209	1070	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	261	121	78	361	133	99	444	69	209	1070	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	94	261	121	78	361	133	99	444	69	209	1070	61

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.16	0.08	0.05	0.23	0.08	0.06	0.14	0.04	0.13	0.33	0.04
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: F[79.7]

Table with columns for Street Name (Consol Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movements.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and values for different movements.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movements.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: C

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C [18.6]

Table with columns for Street Name (Tyler Avenue, Dodson Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module: Table with columns for Critical Gp and FollowUpTim across movement categories.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across movement categories.

Level of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across movement categories.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.543
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: A

Table with columns for Street Name (Tyler Avenue, Elliott Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	C	xxxxx 0.786	C	xxxxx 0.786	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	C	xxxxx 0.762	C	xxxxx 0.762	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F	88.1 0.454	F	88.1 0.454	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	D	xxxxx 0.815	D	xxxxx 0.815	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C	16.0 0.090	C	16.0 0.090	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	B	xxxxx 0.650	B	xxxxx 0.650	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 64 Level Of Service: C

Street Name: Santa Anita Avenue Garvey Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1 1 0 2 0 1

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Volume Module:

Base Vol: 50 571 89 96 618 186 212 996 66 75 568 115

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 50 571 89 96 618 186 212 996 66 75 568 115

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.93 0.93 0.93 0.95 0.95 0.95 0.92 0.92 0.92 0.95 0.95 0.95

PHF Volume: 54 615 96 102 654 197 229 1078 71 79 600 122

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 54 615 96 102 654 197 229 1078 71 79 600 122

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 54 615 96 102 654 197 229 1078 71 79 600 122

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 1.73 0.27 1.00 1.54 0.46 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1600 2768 432 1600 2460 740 1600 3200 1600 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.03 0.22 0.22 0.06 0.27 0.27 0.14 0.34 0.04 0.05 0.19 0.08

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.762
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: C

Table with columns for Street Name (Tyler Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: F[88.1]

Street Name:	Consol Avenue						Garvey Avenue								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0

Volume Module:

Base Vol:	11	2	19	7	2	9	10	1216	26	32	716	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	2	19	7	2	9	10	1216	26	32	716	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.50	0.50	0.50	0.64	0.64	0.64	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	22	4	38	11	3	14	10	1275	27	34	752	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	4	38	11	3	14	10	1275	27	34	752	14

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1754	2142	651	1486	2149	383	766	xxxx	xxxxx	1302	xxxx	xxxxx
Potent Cap.:	55	49	416	88	49	621	857	xxxx	xxxxx	539	xxxx	xxxxx
Move Cap.:	49	46	416	70	45	621	857	xxxx	xxxxx	539	xxxx	xxxxx
Volume/Cap:	0.45	0.09	0.09	0.15	0.07	0.02	0.01	xxxx	xxxx	0.06	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.3	xxxx	xxxxx	12.1	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	101	xxxxx	xxxx	114	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.1	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	88.1	xxxxx	xxxxx	46.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	E	*	*	*	*	*	*	*
ApproachDel:	88.1			46.7			xxxxxxx			xxxxxxx		
ApproachLOS:	F			E			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 70 Level Of Service: D

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C [16.0]

Street Name:	Tyler Avenue				Dodson Street															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign													
Rights:	Include		Include		Include		Include													
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	560	25	26	363	0	0	0	0	16	0	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	560	25	26	363	0	0	0	0	16	0	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.95	0.95	0.95	1.00	1.00	1.00	0.71	0.71	0.71
PHF Volume:	0	609	27	27	383	0	0	0	0	22	0	34
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	609	27	27	383	0	0	0	0	22	0	34

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	637	xxxx	xxxxx	xxxx	xxxx	xxxxx	1047	xxxx	609
Potent Cap.:	xxxx	xxxx	xxxxx	957	xxxx	xxxxx	xxxx	xxxx	xxxxx	255	xxxx	499
Move Cap.:	xxxx	xxxx	xxxxx	957	xxxx	xxxxx	xxxx	xxxx	xxxxx	249	xxxx	499
Volume/Cap:	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	xxxx	0.07

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	0.2
Control Del:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	20.9	xxxx	12.7
LOS by Move:	*	*	*	A	*	*	*	*	*	C	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			16.0		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.650
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Table with columns for Street Name (Tyler Avenue, Elliott Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	F xxxxx	1.021	F xxxxx	1.021	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	D xxxxx	0.836	D xxxxx	0.836	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F 150.8	0.805	F 150.8	0.805	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	D xxxxx	0.824	D xxxxx	0.824	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C 20.2	0.305	C 20.2	0.305	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	A xxxxx	0.566	A xxxxx	0.566	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 1.021
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Santa Anita Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.836
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 76 Level Of Service: D

Street Name:	Tyler Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	1

Volume Module:

Base Vol:	94	249	114	65	288	105	94	490	68	180	1000	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	249	114	65	288	105	94	490	68	180	1000	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.77	0.77	0.77	0.92	0.92	0.92	0.84	0.84	0.84
PHF Volume:	103	272	125	85	375	137	102	533	74	215	1193	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	272	125	85	375	137	102	533	74	215	1193	67
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	272	125	85	375	137	102	533	74	215	1193	67

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.06	0.17	0.08	0.05	0.23	0.09	0.06	0.17	0.05	0.13	0.37	0.04
Crit Moves:	****				****		****				****	

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 9.6 Worst Case Level Of Service: F[150.8]

Street Name:	Consol Avenue						Garvey Avenue													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled										
Rights:	Include			Include			Include			Include										
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	22	1	27	18	0	28	26	642	7	8	1211	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	1	27	18	0	28	26	642	7	8	1211	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.52	0.52	0.52	0.46	0.46	0.46	0.94	0.94	0.94	0.93	0.93	0.93
PHF Volume:	42	2	52	39	0	61	28	684	7	9	1309	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	42	2	52	39	0	61	28	684	7	9	1309	21

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1415	2091	346	1735	2084	665	1330	xxxx	xxxxx	692	xxxx	xxxxx
Potent Cap.:	99	53	656	57	54	407	526	xxxx	xxxxx	913	xxxx	xxxxx
Move Cap.:	80	50	656	49	50	407	526	xxxx	xxxxx	913	xxxx	xxxxx
Volume/Cap:	0.52	0.04	0.08	0.80	0.00	0.15	0.05	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.2	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	149	xxxxx	xxxx	105	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	3.5	xxxxx	xxxxx	5.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	64.5	xxxxx	xxxxx	151	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	64.5			150.8			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: D

Street Name:	Peck Road						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	172	520	43	55	643	309	140	438	117	54	763	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	520	43	55	643	309	140	438	117	54	763	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.94	0.89	0.89	0.89	0.82	0.82	0.82
PHF Volume:	191	578	48	59	688	330	157	490	131	66	934	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	191	578	48	59	688	330	157	490	131	66	934	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	191	578	48	59	688	330	157	490	131	66	934	82

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.12	0.18	0.03	0.04	0.21	0.21	0.10	0.15	0.08	0.04	0.29	0.05
Crit Moves:	****			****			****			****		

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C [20.2]

Street Name:	Tyler Avenue				Dodson Street															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign													
Rights:	Include		Include		Include		Include													
Lanes:	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1

Volume Module:

Base Vol:	0	410	32	9	529	0	0	0	0	42	0	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	410	32	9	529	0	0	0	0	42	0	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.84	0.84	0.84	1.00	1.00	1.00	0.61	0.61	0.61
PHF Volume:	0	480	37	11	627	0	0	0	0	69	0	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	480	37	11	627	0	0	0	0	69	0	62

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	518	xxxx	xxxxx	xxxx	xxxx	xxxxx	1128	xxxx	480
Potent Cap.:	xxxx	xxxx	xxxxx	1059	xxxx	xxxxx	xxxx	xxxx	xxxxx	228	xxxx	590
Move Cap.:	xxxx	xxxx	xxxxx	1059	xxxx	xxxxx	xxxx	xxxx	xxxxx	226	xxxx	590
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.30	xxxx	0.11

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.2	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	27.8	xxxx	11.8
LOS by Move:	*	*	*	A	*	*	*	*	*	D	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			xxxxxxx			xxxxxxx			20.2		
ApproachLOS:	*			*			*			C		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: A

Street Name:	Tyler Avenue						Elliott Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	43	359	41	16	519	32	38	43	70	84	94	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	359	41	16	519	32	38	43	70	84	94	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.81	0.81	0.81	0.63	0.63	0.63	0.75	0.75	0.75
PHF Volume:	46	382	44	20	641	40	60	68	110	112	126	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	382	44	20	641	40	60	68	110	112	126	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	382	44	20	641	40	60	68	110	112	126	62

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.11	0.89	1.00	0.06	1.83	0.11	0.47	0.53	1.00	0.47	0.53	1.00
Final Sat.:	171	1429	1600	90	2929	181	751	849	1600	755	845	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.27	0.03	0.01	0.22	0.22	0.04	0.08	0.07	0.07	0.15	0.04
Crit Moves:	****			****			****			****		

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	D xxxxx	0.869	D xxxxx	0.869	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	D xxxxx	0.837	D xxxxx	0.837	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F 217.4	0.716	F 217.4	0.716	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	E xxxxx	0.907	E xxxxx	0.907	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C 17.1	0.102	C 17.1	0.102	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	B xxxxx	0.679	B xxxxx	0.679	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 87 Level Of Service: D

Street Name:	Santa Anita Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	2	1	0	2

Volume Module:

Base Vol:	53	657	99	134	699	258	291	1071	78	83	609	171
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	657	99	134	699	258	291	1071	78	83	609	171
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
PHF Volume:	57	707	107	142	740	273	315	1159	84	88	644	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	707	107	142	740	273	315	1159	84	88	644	181
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	707	107	142	740	273	315	1159	84	88	644	181

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2781	419	1600	2337	863	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.25	0.25	0.09	0.32	0.32	0.20	0.36	0.05	0.05	0.20	0.11
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.837
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 76 Level Of Service: D

Street Name:	Tyler Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	1

Volume Module:

Base Vol:	125	348	177	87	231	62	92	1176	95	83	747	67
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	125	348	177	87	231	62	92	1176	95	83	747	67
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.98	0.98	0.98	0.95	0.95	0.95	0.94	0.94	0.94
PHF Volume:	139	386	196	89	236	63	96	1233	100	88	795	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	386	196	89	236	63	96	1233	100	88	795	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	386	196	89	236	63	96	1233	100	88	795	71

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.09	0.24	0.12	0.06	0.15	0.04	0.06	0.39	0.06	0.06	0.25	0.04
Crit Moves:	****			****			****			****		

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: F[217.4]

Street Name:	Consol Avenue						Garvey Avenue								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0

Volume Module:

Base Vol:	11	2	13	7	2	9	10	1392	27	22	872	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	2	13	7	2	9	10	1392	27	22	872	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.50	0.50	0.50	0.64	0.64	0.64	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	22	4	26	11	3	14	10	1459	28	23	916	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	4	26	11	3	14	10	1459	28	23	916	14

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	2000	2470	744	1722	2477	465	930	xxxx	xxxxx	1487	xxxx	xxxxx
Potent Cap.:	36	31	362	59	30	550	744	xxxx	xxxxx	458	xxxx	xxxxx
Move Cap.:	31	29	362	46	28	550	744	xxxx	xxxxx	458	xxxx	xxxxx
Volume/Cap:	0.72	0.14	0.07	0.24	0.11	0.03	0.01	xxxx	xxxx	0.05	xxxx	xxxx

Level of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	13.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	56	xxxxx	xxxx	76	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.2	xxxxx	xxxxx	1.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	217	xxxxx	xxxxx	78.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	217.4			78.4			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.907
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 104 Level Of Service: E

Street Name:	Peck Road						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	1	0	2	0	1	1

Volume Module:

Base Vol:	163	668	64	123	935	196	310	933	180	60	516	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	163	668	64	123	935	196	310	933	180	60	516	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.91	0.91	0.91	0.97	0.97	0.97	0.91	0.91	0.91
PHF Volume:	171	701	67	136	1033	217	320	964	186	66	567	89
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	171	701	67	136	1033	217	320	964	186	66	567	89
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	171	701	67	136	1033	217	320	964	186	66	567	89

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.22	0.04	0.08	0.32	0.14	0.20	0.30	0.12	0.04	0.18	0.06
Crit Moves:	****			****			****			****		

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C [17.1]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Tyler Avenue and Dodson Street with various approach and movement details.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume. Rows include Tyler Avenue and Dodson Street.

Critical Gap Module: Table with columns for Critical Gap and FollowUp Time. Rows include Tyler Avenue and Dodson Street.

Capacity Module: Table with columns for Conflict Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include Tyler Avenue and Dodson Street.

Level of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include Tyler Avenue and Dodson Street.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.679
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Tyler Avenue						Elliott Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	58	565	56	43	367	24	29	104	59	24	66	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	565	56	43	367	24	29	104	59	24	66	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.95	0.95	0.95	0.93	0.93	0.93	0.68	0.68	0.68
PHF Volume:	65	638	63	45	385	25	31	112	63	36	98	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	638	63	45	385	25	31	112	63	36	98	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	638	63	45	385	25	31	112	63	36	98	49

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.91	1.00	0.20	1.69	0.11	0.22	0.78	1.00	0.27	0.73	1.00
Final Sat.:	149	1451	1600	317	2706	177	349	1251	1600	427	1173	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.44	0.04	0.03	0.14	0.14	0.02	0.09	0.04	0.02	0.08	0.03
Crit Moves:	****			****			****			****		

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	F xxxxx	1.021	F xxxxx	1.021	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	D xxxxx	0.843	D xxxxx	0.843	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F 166.3	0.846	F 166.3	0.846	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	D xxxxx	0.828	D xxxxx	0.828	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C 20.3	0.307	C 20.3	0.307	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	A xxxxx	0.566	A xxxxx	0.566	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 1.021
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Santa Anita Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	2	1	0	2

Volume Module:

Base Vol:	70	486	57	103	719	274	215	540	63	109	1008	123
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	486	57	103	719	274	215	540	63	109	1008	123
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.86	0.86	0.86	0.91	0.91	0.91	0.87	0.87	0.96
PHF Volume:	82	572	67	119	834	318	237	596	70	125	1157	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	572	67	119	834	318	237	596	70	125	1157	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	572	67	119	834	318	237	596	70	125	1157	128

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.79	0.21	1.00	1.45	0.55	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2864	336	1600	2317	883	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.05	0.20	0.20	0.07	0.36	0.36	0.15	0.19	0.04	0.08	0.36	0.08
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.843
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

Table with columns for Street Name (Tyler Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 10.7 Worst Case Level Of Service: F[166.3]

Street Name:	Consol Avenue						Garvey Avenue													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled										
Rights:	Include			Include			Include			Include										
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	1	0	1	1	0

Volume Module:

Base Vol:	22	1	38	18	0	28	26	642	7	11	1211	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	1	38	18	0	28	26	642	7	11	1211	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.52	0.52	0.52	0.46	0.46	0.46	0.94	0.94	0.94	0.93	0.93	0.93
PHF Volume:	42	2	73	39	0	61	28	684	7	12	1309	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	42	2	73	39	0	61	28	684	7	12	1309	21

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	1422	2097	346	1742	2091	665	1330	xxxx	xxxxx	692	xxxx	xxxxx
Potent Cap.:	98	53	656	57	53	407	526	xxxx	xxxxx	913	xxxx	xxxxx
Move Cap.:	79	49	656	46	50	407	526	xxxx	xxxxx	913	xxxx	xxxxx
Volume/Cap:	0.53	0.04	0.11	0.85	0.00	0.15	0.05	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.2	xxxx	xxxxx	9.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	171	xxxxx	xxxx	101	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.0	xxxxx	xxxxx	6.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	61.9	xxxxx	xxxxx	166	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	61.9			166.3			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.828
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: D

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C [20.3]

Street Name: Tyler Avenue Dodson Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 1 0 1 0 0 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 0 411 32 9 533 0 0 0 0 42 0 38
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 411 32 9 533 0 0 0 0 42 0 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.84 0.84 0.84 1.00 1.00 1.00 0.61 0.61 0.61
PHF Volume: 0 481 37 11 632 0 0 0 0 69 0 62
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 481 37 11 632 0 0 0 0 69 0 62

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxxx xxxxxx xxxx xxxxxx 6.4 xxxx 6.2
FollowUpTim:xxxxx xxxx xxxxxx 2.2 xxxx xxxxxx xxxxxx xxxx xxxxxx 3.5 xxxx 3.3

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxxx 519 xxxx xxxxxx xxxx xxxx xxxxxx 1134 xxxx 481
Potent Cap.: xxxx xxxx xxxxxx 1058 xxxx xxxxxx xxxx xxxx xxxxxx 226 xxxx 589
Move Cap.: xxxx xxxx xxxxxx 1058 xxxx xxxxxx xxxx xxxx xxxxxx 224 xxxx 589
Volume/Cap: xxxx xxxx xxxx 0.01 xxxx xxxx xxxx xxxx xxxx 0.31 xxxx 0.11

Level of Service Module:
2Way95thQ: xxxx xxxx xxxxxx 0.0 xxxx xxxxxx xxxx xxxx xxxxxx 1.3 xxxx 0.4
Control Del:xxxxx xxxx xxxxxx 8.4 xxxx xxxxxx xxxxxx xxxx xxxxxx 28.0 xxxx 11.8
LOS by Move: * * * A * * * * * D * B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
SharedQueue:xxxxx xxxx xxxxxx 0.0 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shrd ConDel:xxxxx xxxx xxxxxx 8.4 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shared LOS: * * * A * * * * * * * *
ApproachDel: xxxxxx xxxxxx xxxxxx 20.3
ApproachLOS: * * * C

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: A

Street Name:	Tyler Avenue						Elliott Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

Base Vol:	43	360	41	16	522	33	38	43	70	84	94	46
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	360	41	16	522	33	38	43	70	84	94	46
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.81	0.81	0.81	0.63	0.63	0.63	0.75	0.75	0.75
PHF Volume:	46	383	44	20	644	41	60	68	110	112	126	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	383	44	20	644	41	60	68	110	112	126	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	46	383	44	20	644	41	60	68	110	112	126	62

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.11	0.89	1.00	0.06	1.83	0.11	0.47	0.53	1.00	0.47	0.53	1.00
Final Sat.:	171	1429	1600	90	2925	185	751	849	1600	755	845	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.27	0.03	0.01	0.22	0.22	0.04	0.08	0.07	0.07	0.15	0.04
Crit Moves:	****			****			****			****		

 Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 Santa Anita Avenue/Garvey Aven	D xxxxx	0.870	D xxxxx	0.870	+ 0.000 V/C
# 2 Tyler Avenue/Garvey Avenue	D xxxxx	0.838	D xxxxx	0.838	+ 0.000 V/C
# 3 Consol Avenue/Garvey Avenue	F 226.0	0.760	F 226.0	0.760	+ 0.000 D/V
# 4 Peck Road/Garvey Avenue	E xxxxx	0.911	E xxxxx	0.911	+ 0.000 V/C
# 5 Tyler Avenue/Dodson Street	C 17.3	0.103	C 17.3	0.103	+ 0.000 D/V
# 6 Tyler Avenue/Elliott Avenue	B xxxxx	0.681	B xxxxx	0.681	+ 0.000 V/C

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Santa Anita Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.870
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 87 Level Of Service: D

Street Name:	Santa Anita Avenue						Garvey Avenue					
	North Bound			South Bound			East Bound			West Bound		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	2	1	0	2

Volume Module:

Base Vol:	53	657	99	142	699	258	291	1074	78	83	611	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	657	99	142	699	258	291	1074	78	83	611	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.95	0.95	0.95	0.92	0.92	0.92	0.95	0.95	0.95
PHF Volume:	57	707	107	150	740	273	315	1162	84	88	646	185
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	707	107	150	740	273	315	1162	84	88	646	185
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	707	107	150	740	273	315	1162	84	88	646	185

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.74	0.26	1.00	1.46	0.54	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1600	2781	419	1600	2337	863	1600	3200	1600	1600	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.04	0.25	0.25	0.09	0.32	0.32	0.20	0.36	0.05	0.05	0.20	0.12
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Tyler Avenue/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: D

Table with columns for Street Name (Tyler Avenue, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic metrics like Min. Green, Y+R, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Consol Avenue/Garvey Avenue

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: F[226.0]

Street Name:	Consol Avenue						Garvey Avenue								
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0

Volume Module:

Base Vol:	11	2	19	7	2	9	10	1392	27	32	872	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	2	19	7	2	9	10	1392	27	32	872	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.50	0.50	0.50	0.64	0.64	0.64	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	22	4	38	11	3	14	10	1459	28	34	916	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	22	4	38	11	3	14	10	1459	28	34	916	14

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	2021	2491	744	1743	2498	465	930	xxxx	xxxxx	1487	xxxx	xxxxx
Potent Cap.:	35	30	362	57	29	550	744	xxxx	xxxxx	458	xxxx	xxxxx
Move Cap.:	29	27	362	42	27	550	744	xxxx	xxxxx	458	xxxx	xxxxx
Volume/Cap:	0.76	0.15	0.11	0.26	0.12	0.03	0.01	xxxx	xxxx	0.07	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	13.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	63	xxxxx	xxxx	70	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.9	xxxxx	xxxxx	1.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	226	xxxxx	xxxxx	87.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	*	*	*	*	*	*
ApproachDel:	226.0			87.5			xxxxxx			xxxxxx		
ApproachLOS:	F			F			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Peck Road/Garvey Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.911
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 106 Level Of Service: E

Table with columns for Street Name (Peck Road, Garvey Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Tyler Avenue/Dodson Street

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C [17.3]

Table with columns for Street Name (Tyler Avenue, Dodson Street), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (0, 1).

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movements.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and values for different movements.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movements.

Level of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Tyler Avenue/Elliott Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Table with columns for Street Name (Tyler Avenue, Elliott Avenue), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

CUMULATIVE PROJECTS TRAFFIC DATA

CASE TYPE	OTHER CASES	ADDRESS		BRIEF DESCRIPTION	RECEIVED DATE	COMPLETE STATUS	STATUS DATE	ENVIRON.	MTG. #1 REVIEW BODY	MTG. #1 DATE	MTG. #1 DECISION	MTG. #1 RESO No.	MTG. #2 REVIEW BODY	MTG. #2 DATE	MTG. #2 DECISION	MTG. #2 RESO or ORD No.	COMMENTS
CUP	DR 02-14	9358	Telstar Ave.	Renovate 4 existing office buildings totaling 40,000 sf into a seminary campus. Façade improvements and new landscaping.	03/27/14	Complete: scheduled	05/12/14	TBD	PC	07/01/14							
VTTM / TTM	CUP 24-13, DR 01-14, MOD 26-13	11301-11401	Garvey Ave.	Demo existing auto dealership & construct new mixed-use project w/ 5,400 sf of retail and 114 residential units. Includes an alley vacation.	11/26/13	Complete: scheduled		IS	PC	07/01/14			CC				
DR	None	10525	Valley Blvd.	Modifying the design and site configuration for an existing warehouse w/a 10,000 sf addition within the building footprint.	02/21/12	Complete: scheduled	06/05/14	Exempt	PC	07/01/14							Deemed incomplete on 7/2/13. City Attorney to provide conditions related to parking.
IPR	None	12432	Valley Blvd.	Construct a new 30,000 sf commercial building and a parking structure with 155 spaces.	06/02/14	New Case		Not Required	Staff								
VTTM / TTM	CUP 13-14, Mod 13-14	4127-4143	Rowland	68 unit residential complex on a 3.-acre irregular shaped site. The units along Rowland will be 2-stories and the other units will be 3-stories.	05/27/14	New Case			PC				CC				
IPR	None	3268	Rosemead Blvd.	New 2-story building with 6,700 sf of office and 5,500 sf of showroom.	05/14/14	New Case		Not Required	Staff								Need to route to architectural firm.
IPR	None	11640-11710	Valley Blvd.	MMU of 78 units with 1 story commercial	12/13/13	Submitted new information	05/29/14	Other	Staff								
IPR	None	4704 & 4716	Peck Rd	49 unit low-income affordable housing development	05/05/14	New Case			Staff								
GPA & ZC	VTTM 722192, CUP 10-14 & CUP 11-14	4422-4436	Bannister St.	For a GPA from "Public Facilities" to "Low Density Residential" and a ZC from PF to R1-B to develop a 23-unit residential PRD. VTTM will establish 23 residential lots nad 1 common lot	04/30/14	Submitted new information	06/05/14	IS	PC				CC				Deemed incomplete on 5/19/14 and was not routed.
IPR	None	4400	Temple City Blvd.	New 111,380 sf LT Ind./Comm center.	04/17/14	New Case	05/05/14	Not Required	Staff								Routed for architectural comments.
IPR	None	3708	Cypress Ave.	Initial review for 12 new detached units on property zoned R3.	04/16/14	New Case	05/05/14	Not Required	Staff				None				Received architecture and landscaping comments.
IPR	None	11022-11048	Garvey Ave.	69 new residential units with 2,154 sf of retail.	03/13/14	Comments sent	06/04/14	Not Required	Staff				None				Fees paid on 5/5/14. Routed for architecture and landscaping comments.
GPA & ZC	IPR 05-12, LD, CUP 18-12, DR 08-12, MOD	4000	Arden Dr.	For a GPA from "Industrial/Business Park" to "General Commercial" and a ZC from M2 to C4 for a 15.41 acre site (for a new Walmart Superstore).	03/12/14	Completing environmental		EIR	PC				CC				NOP review period from 03/13/14 to 04/13/14.
LD (PM)	GPA 01-14, ZC 01-14, CUP 18-12, DR 08-12, MOD, IPR 05-12	4000	Arden Dr.	To develop a 182,429 sf Walmart Superstore with other retail tenants. Also include a CUP for alcohol sales, MOD for loading and a MSP. For a GPA from "Industrial/Business Park" to "General Commercial" and a ZC from M2 to C4 for a 15.41 acre site	03/12/14	Completing environmental		EIR	PC				CC				NOP review period from 03/13/14 to 04/13/14.
IPR	None	11640-11770	Valley Blvd.	New 4-story mixed-use project with 78 units and 30,000 sf of comm.	12/19/13	Submitted new information	05/28/14	Not Required	Staff								Applicant working on modifying plans to address some significant zoning concerns. Still needs to submit landscape plans.
GPA & ZC	ZC 01-13, CUP 16-13, DR 08-13	12228	Chosen St.	GPA from MLR to MMU and ZC from R2 to MMU and P overlay for a new 29,365 manufacturing/office building and parking.	09/19/13	Completing environmental		IS	PC				CC				Draft IS circulated on 6/4. Community Meeting on 06/19/14. To PC tentatively in 08/14.

CASE TYPE	OTHER CASES	ADDRESS	BRIEF DESCRIPTION	RECEIVED DATE	COMPLETE STATUS	STATUS DATE	ENVIRON.	MTG. #1 REVIEW BODY	MTG. #1 DATE	MTG. #1 DECISION	MTG. #1 RESO No.	MTG. #2 REVIEW BODY	MTG. #2 DATE	MTG. #2 DECISION	MTG. #2 RESO or ORD No.	COMMENTS
CUP	DR 09-13	9920 Valley Blvd.	Construct a new 4-story Hilton Gardens hotel with 133 guest rooms.	04/09/13	Completing environmental		IS	PC								Traffic study submitted. Draft IS is ready for peer review. Applicant paid fee. Tentatively ready for PC on 7/1/14 or 7/15/14.
IPR		12432 Valley Blvd.	Construct new 29,928 SF retail/restaurant plus 55,914 parking garage	06/02/14	Completing Initial Plan Review	06/18/14										Routed for architectural comments.
IPR		4213 Temple City Blvd.	502,020 SF of industrial and commercial project on a 26.8 acre site		Stalled in Plan Check	08/18/14										Lawsuit pending.
		Gateway TOD	485 housing units and 25,000 SF of retail next to a major transit center		Broke ground	6/18/2014		PC								
		NEC Valley/Santa Anita	Santa Fe Trail Project: 115,000 sf of retail		In Plan Check	6/18/2014		PC								
LD (PM)	CUP 06-14, Density Bonus w/ 2 concessions	5229 Hammill Rd.	3 unit PUD in the R-1 zone. One unit will be moderate to allow a density bonus for third unit.	03/17/14	Complete: scheduled		Exempt	PC	05/06/14	Approved						
LD (PM)	None	12345 Dahlia Ave.	Two residential lots and one common lot for driveway. Zoned R1-B.	03/05/14	Complete: scheduled		Exempt	PC	05/06/14	Approved						Presented to PC by Jason Mikaelian.
IPR	None	4455 Cogswell Rd.	2 unit single-family residence subdivision.	01/16/14	Comments sent	04/23/14	Not Required	Staff				None				
		Ramona Crossings	40 housing units		Approved											Under construction
TTM		12417-12467 Denholm Dr	62-unit single-family residential subdivision		Approved in 2013											
TTM		4610 Peck Rd	23-unit multi-family development		Extension for permit until Sept 14											
DR		12346 Valley Blvd.	27,280 sf commercial flex space		built											
DR		9235 Whitmore	60,000 sf commercial building and 190,000 sf parking structure		approved Oct 13											Nothing has been constructed so far; no permits submitted
		4304 Temple City Blvd.	24,945 sf industrial		Approved Nov 5, 2013											No permits issued so far.
		10606 Valley Blvd.	7,600 sq. ft. Norm's Restaurant													The City is in negotiations for the sale and development of the lot.
TPM	CUP, DR, MOD	9133 Garvey Ave.	96,659 sf industrial building (Media Center)					PC	09/16/14							

- CUP Conditional Use Permit
- DR Design Review
- GPA General Plan Amendment
- IPR Initial Plan Review
- LD Lot Division
- MOD Modification
- SP Specific Plan
- VTTM Vesting Tentative Tract Map
- ZC Zoning Change

Table - Cumulative Projects Trip Generation Estimates

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
TRIP RATES								
Single-Family Detached Housing (ITE 210)	per DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Residential Condo/Townhouse (ITE 230)	per DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
Apartment (ITE 220)	per DU	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Shopping Center (ITE 820)	per TSF	<i>ITE</i>	<i>ITE equation used</i>			<i>ITE equation used</i>		
High-Turnover (Sit-Down) Restaurant (ITE 932)	per TSF	127.15	5.95	4.86	10.81	5.91	3.94	9.85
Free-Standing Discount Superstore (ITE 813)	per TSF	50.75	1.04	0.81	1.85	2.13	2.22	4.35
General Office Building (ITE 1250)	per TSF	<i>ITE</i>	<i>ITE equation used</i>			<i>ITE equation used</i>		
General Light Industrial (ITE 110)	per TSF	6.97	0.81	0.11	0.92	0.12	0.85	0.97
TRIP GENERATION								
1. 11301-11401 Garvey Avenue								
Apartments	114 DUs	758	12	47	58	46	25	71
Shopping Center	5,400 TSF	1,019	16	10	26	41	44	85
<i>Pass-by trips (91%)</i>		-927	-15	-9	-24	-37	-40	-77
Total Trip Generation		850	13	47	61	50	29	78
2. 12432 Valley Boulevard								
General Office Building	30,000 TSF	526	64	9	73	19	93	112
Total Trip Generation		526	64	9	73	19	93	112
3. 11640 - 11710 Valley Boulevard								
Apartments	78 DUs	519	8	32	40	31	17	48
Shopping Center	30,000 TSF	3,105	46	28	75	128	139	267
<i>Pass-by trips (55%)</i>		-1,719	-26	-16	-41	-71	-77	-148
Total Trip Generation		1,905	29	45	73	89	79	168
4. Wal-Mart Superstore (4000 Arden Drive)								
Free-Standing Discount Superstore	182,429 TSF	9,258	189	148	337	389	405	794
<i>Pass-by trips (28%)</i>		-2,592	-53	-42	-94	-109	-113	-222
Total Trip Generation		6,666	136	107	243	280	291	571
5. Lawrence Equipment Improvement Project (12228 Chosen Street)								
Warehouse and Office Improvements ¹	31,409 TSF	12	11	1	12	2	11	13
Total Trip Generation		12	11	1	12	2	11	13
6. 12432 Valley Boulevard								
Shopping Center	29,928 TSF	3,100	46	28	75	128	139	267
<i>Pass-by trips (55%)</i>		-1,717	-26	-16	-41	-71	-77	-148
Total Trip Generation		1,383	21	13	33	57	62	119
7. Gateway TOD								
Apartments	485 DUs	3,225	49	198	247	195	105	301
Shopping Center	25,000 TSF	2,758	41	25	67	114	123	237
<i>Pass-by trips (58%)</i>		-1,609	-24	-15	-39	-66	-72	-138
Total Trip Generation		4,374	67	208	275	243	156	399
8. Santa Fe Trail Project (NEC of Valley Boulevard/Santa Anita Road)								
Shopping Center	115,000 TSF	7,437	105	65	170	316	342	658
<i>Pass-by trips (37%)</i>		-2,788	-39	-24	-64	-118	-128	-247
Total Trip Generation		4,649	66	40	106	197	214	411
9. Ramona Crossings								
Residential Condo/Townhouse	40 DUs	232	3	15	18	14	7	21
Total Trip Generation		232	3	15	18	14	7	21
10. 12417-12467 Denholm Drive								
Single-Family Detached Housing	62 DUs	590	12	35	47	39	23	62
Total Trip Generation		590	12	35	47	39	23	62
11. 9235 Whitmore Street								
General Office Building	60,000 TSF	890	112	15	127	25	121	146
Total Trip Generation		890	112	15	127	25	121	146
12. Media Center Project (9133 Garvey Avenue)								
Warehouse/Light Industrial/Office ²	96,659 TSF	541	78	11	89	10	70	80
Total Trip Generation		541	78	11	89	10	70	80
TOTAL CUMULATIVE PROJECTS TRIP GENERATION		22,619	611	546	1,157	1,025	1,156	2,181

Notes:

Trip generation rates based on *Trip Generation, 9th Edition*, Institute of Transportation Engineers (ITE), 2012.

Pass-by percentages for retail uses based on *Trip Generation Handbook, Second Edition*, ITE 2004.

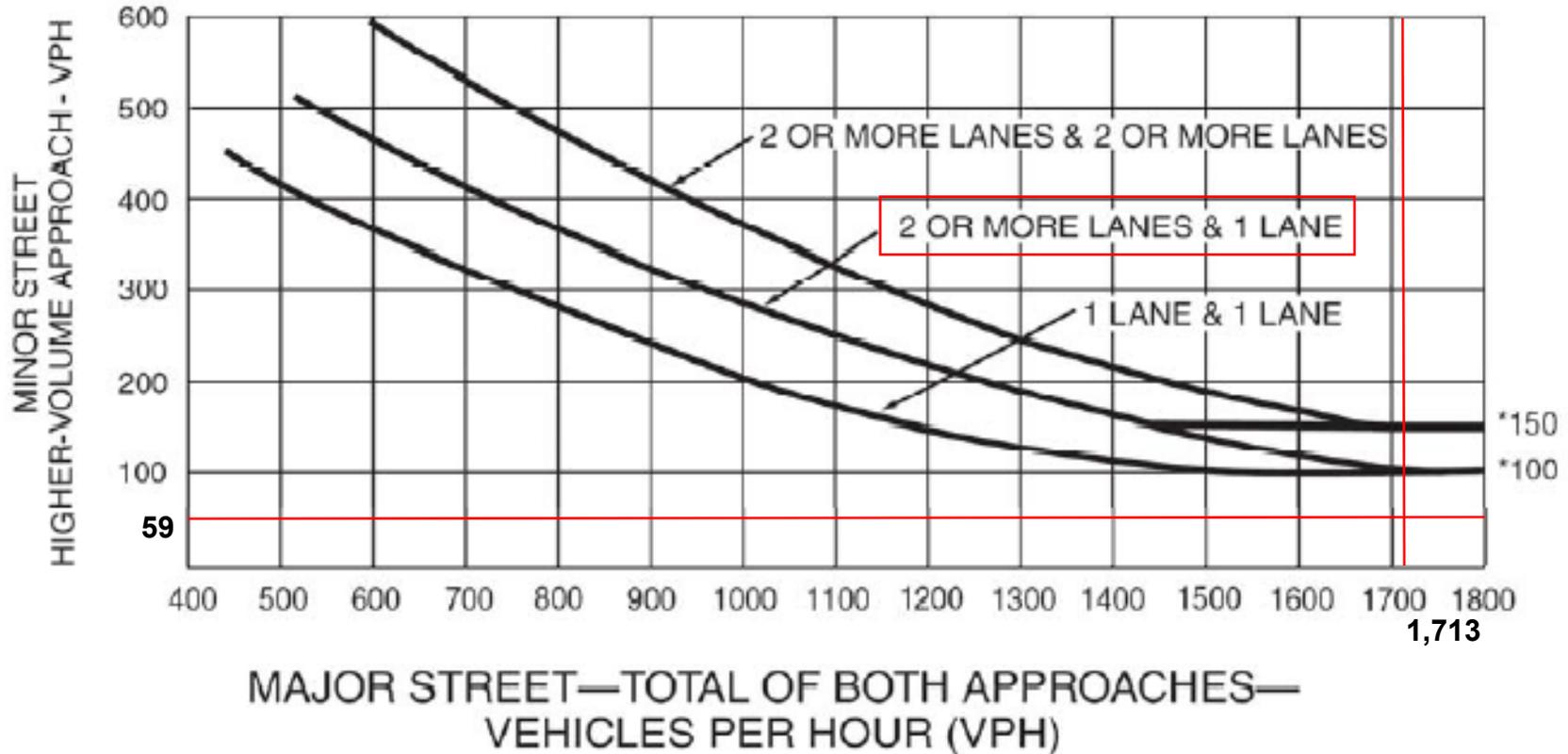
¹ Trip generation estimates taken from Lawrence Equipment Improvement Project IS/MND, City of El Monte, May 20, 2014.

² Trip generation, distribution, and assignment taken from *El Monte Media Center Project Traffic Impact Analysis*, RBF Consulting, May 6, 2014.

MUTCD PEAK HOUR SIGNAL WARRANTS

Figure 4C-3. Warrant 3, Peak Hour

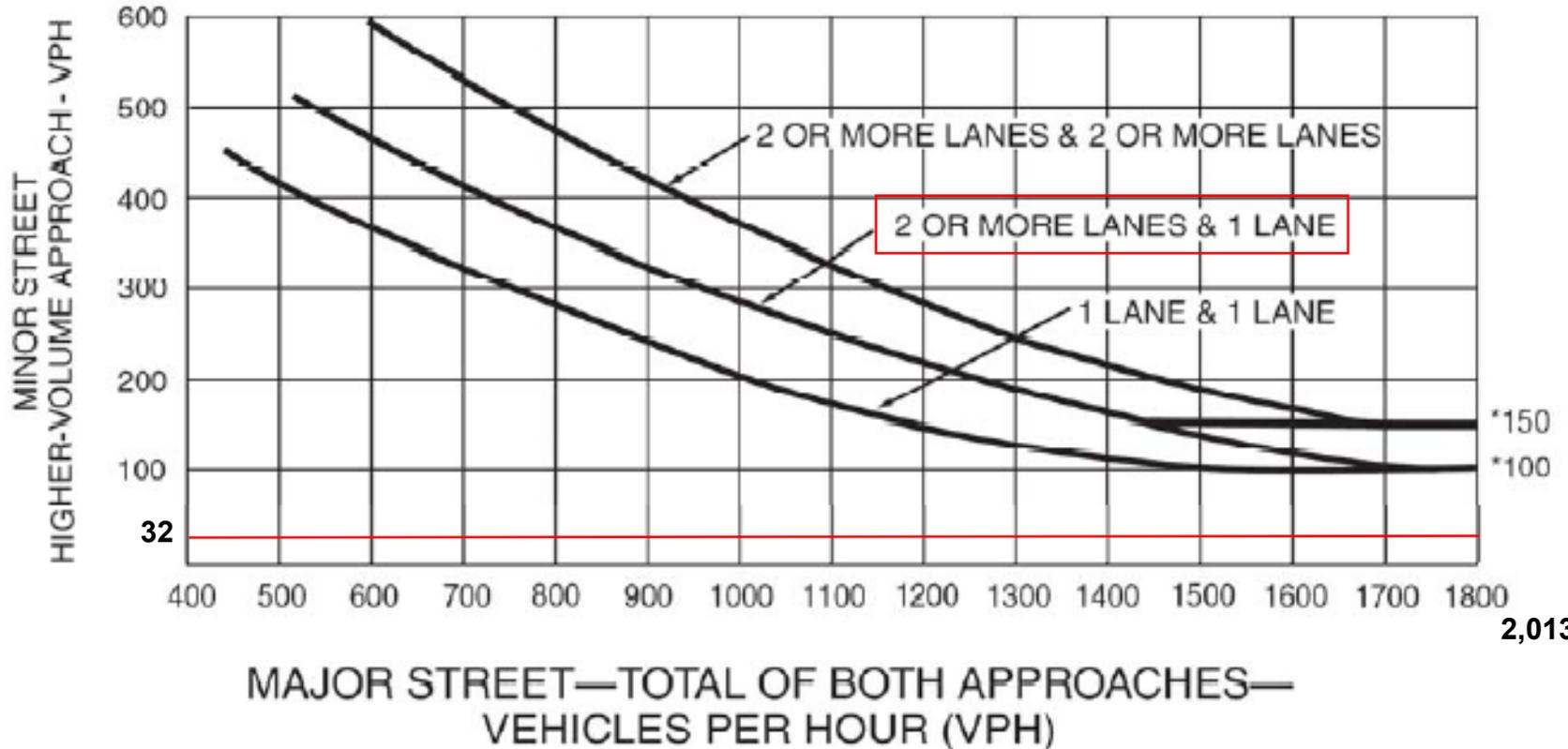
#1 CONSOL AVENUE/GARVEY AVENUE
EXISTING PLUS PROJECT
AM PEAK HOUR
WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour

#1 CONSOL AVENUE/GARVEY AVENUE
EXISTING PLUS PROJECT
PM PEAK HOUR
WARRANT NOT SATISFIED

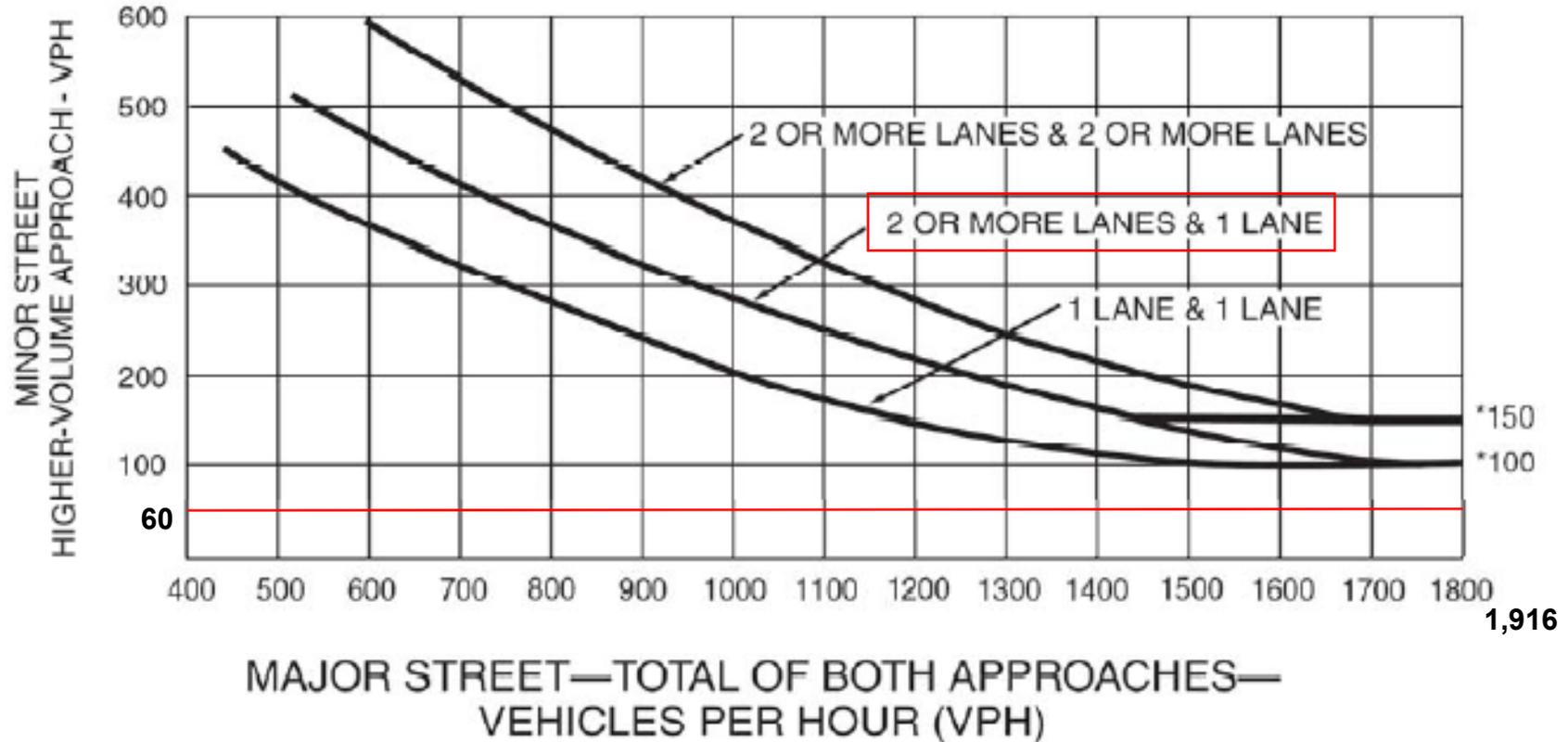


2,013

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour

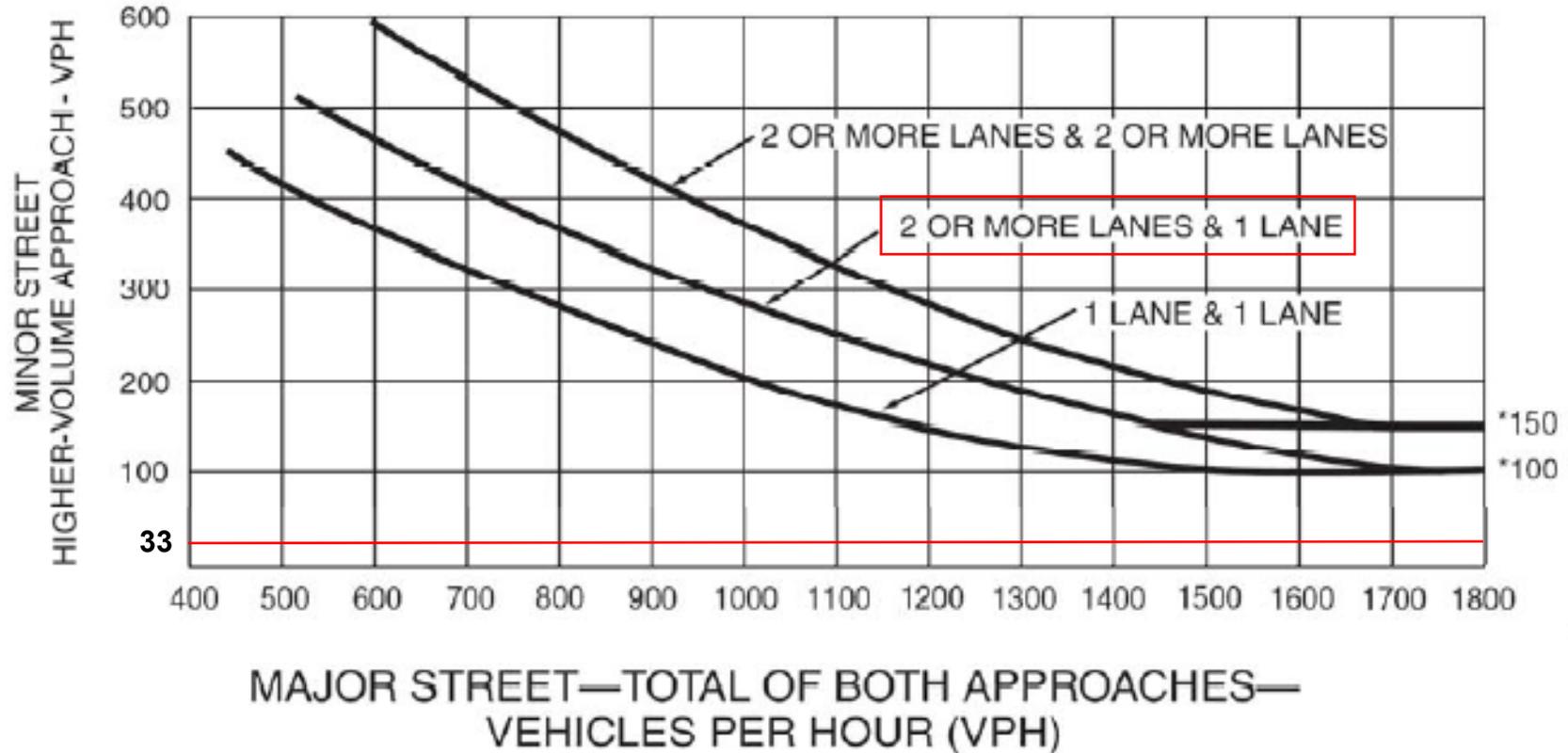
#1 CONSOL AVENUE/GARVEY AVENUE
OPENING YEAR PLUS PROJECT
AM PEAK HOUR
WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-3. Warrant 3, Peak Hour

#1 CONSOL AVENUE/GARVEY AVENUE
OPENING YEAR PLUS PROJECT
PM PEAK HOUR
WARRANT NOT SATISFIED



2,346

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

APPENDIX C
ENVIRONMENTAL REPORTS

**PHASE I ENVIRONMENTAL
SITE ASSESSMENT**

Multiple Commercial Parcels
SEC Tyler and Garvey
Avenues
El Monte, California 91733
Stantec Project No: 185803086



Prepared for:
City Ventures
1900 Quail Street
Newport Beach, California
92660

Prepared by:
Stantec Consulting Services
Inc.
25864-F Business Center Drive
Redlands, California

October 28, 2013

PHASE I ENVIRONMENTAL SITE ASSESSMENT

This PHASE I ENVIRONMENTAL SITE ASSESSMENT was prepared by Stantec Consulting Services Inc. for City Ventures. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec Consulting Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Prepared by Kristen Daly
(signature)

Kristen Daly, Project Geologist

Reviewed by Dion Monge
(signature)

Dion Monge, Associate Scientist

Approved by Kyle D Emerson
(signature)

Kyle Emerson, Managing Principal Geologist

PHASE I ENVIRONMENTAL SITE ASSESSMENT

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Executive Summary

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California (the "Site"). Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527-05 (and Final Rule 40 CFR Part 312 et seq.) with respect to the Site. Any exceptions to, or deletions from, this practice are described in Section 1.2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Site, except for the following:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth.

At this address, Stantec recommends assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is

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located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building.

At this address, Stantec recommends assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, a UST and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommends soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec recommends assessment of the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard.

Stantec recommends assessment of soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

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Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations will be addressed by the assessment of the previous service station in the northwest corner of the Site.

Additionally, the following non-ASTM conditions were identified for the Site:

- Given the age of the existing buildings on Site (constructed by the 1970's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends removing LBP from the Site prior to any activities with the potential to disturb building materials, in accordance with all applicable laws.
- Given the age of the existing buildings on the Site (constructed by the 1970's), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.
- Fluorescent lights were present in several of the buildings. Due to the age of the buildings, Stantec recommends that the light ballasts be properly disposed following removal.

The Federal AAI rule and ASTM E1527-05 require that the Phase I ESA report includes the following declarations by the Environmental Professional who completed the assessment.

1. *I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR §312.10.*

PHASE I ENVIRONMENTAL SITE ASSESSMENT

October 28, 2013

- I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR §312 (see Appendix H).*

Signature: 
Name (printed): Kyle Emerson, C.E.G. 1271
Title: Managing Principal Geologist
Date: October 28, 2013

PHASE I ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION
October 28, 2013

1.0 INTRODUCTION

1.1 OBJECTIVE

This Phase I Environmental Site Assessment (ESA) was performed in accordance with the practices identified in the *ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-05 and Title 40 of the Code of Federal Regulations (CFR), Part 312, which specifies standards and practices for "all appropriate inquiries" (AAI) required for persons seeking to establish certain defenses to or protections from liability under the Federal Comprehensive Environmental Response, Cleanup and Liability Act (CERCLA). The Federal rule 40 CFR 312.11(a) identifies a Phase I ESA completed in accordance with the E1527-05 practice as one way to achieve compliance with requirements of the AAI rule.

The objective of this Phase I ESA was to identify Recognized Environmental Conditions (RECs) or Historical Recognized Environmental Conditions (HRECs), as defined under ASTM E-1527-05. As defined in ASTM E1527-05, a REC is:

The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property, even if those substances are present under conditions in compliance with environmental laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.

1.2 SCOPE OF WORK

This assessment has been performed in a manner which complies with requirements of our Master Services Agreement with City Ventures ("MSA"), All Appropriate Inquiries (AAI) Final Rule 40 CFR Part 312, ASTM Practice E1527-05, and the Statement of Limitations presented in Section 7.0 of this report. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the MSA, the MSA shall control.

The scope of services did not include an assessment of overall environmental regulatory compliance, any subsurface investigation (including soil or groundwater sampling, exploratory boreholes or other investigative techniques to quantify potentially identified hazardous materials), and asbestos, lead-based paint, mold, or radon gas surveys.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION
October 28, 2013

1.3 RELIANCE AND CONTACT INFORMATION

This Phase I ESA report has been prepared for the exclusive use of City Ventures, its lender, and equity partners. No other person or entity may rely on the information presented in the report without the expressed written consent of Stantec. Any use of this Phase I ESA report constitutes acceptance of the terms and conditions under which it was prepared. Stantec's responsibility extends only to its client and Stantec is not liable or responsible to any other parties who may obtain the Phase I ESA report.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SITE DESCRIPTION
October 28, 2013

2.0 SITE DESCRIPTION

2.1 SITE NAME AND LOCATION

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California (Site). Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California.

The Assessor Parcel Numbers (APNs) for the Site are 8105-001-049 and 8105-001-050.

2.2 SITE VICINITY

The Site is located within a mixed use commercial and residential area of El Monte. Surrounding properties to the Site include the following:

North: Garvey Avenue beyond which are automotive repair shops, a fast food restaurant, and a welding supply store.

South: Hai Nam Association, a synagogue, and residential properties

East: Residences and retail stores.

West: Automotive repair shops, a car sales lot and commercial buildings.

The location of the Site is shown on Figure 1, Site Location Map. Surrounding property usage is shown on Figure 2, Site Map.

2.3 STRUCTURES, ROADS, AND OTHER RELEVANT IMPROVEMENTS TO THE SITE

The Site consists of 3.5 acres of land occupied by eight separate tenants including car sales lots, an auto body shop, an auto repair shop, a computer/electronics shop, a flooring warehouse, and a trailer park.

Further site description is provided in the following Section 3.0. A photographic log of current site conditions is attached in Appendix A and a Site Plan showing the present day configuration is shown on Figure 2 attached.

2.4 ENVIRONMENTAL LIENS

Stantec identified no environmental liens associated with the Site.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

SITE DESCRIPTION
October 28, 2013

2.5 CURRENT PROPERTY USE

The Site is currently used for several active business operations including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

3.0 PROPERTY RECONNAISSANCE

3.1 PROPERTY OBSERVATIONS

Ms. Kristen Daly, Project Geologist with Stantec, performed a reconnaissance of the Site on September 13, 2013. Weather conditions during the reconnaissance were clear and no weather related restrictions were encountered. Mr. Maurice Refoua of Refoua/Faraham Enterprises, site owner, served as Stantec's contact for Site access. Various tenants of the Site were present during parts of Stantec's site reconnaissance.

The purpose of the reconnaissance was to identify existing conditions and land uses that may suggest potential environmental impacts to the Site. Such conditions, to the extent visible and accessible, include storage, disposal and treatment of solid and/or hazardous waste, storage tanks and other chemical containers, odors, pools of liquid, staining, drains, sumps, pits, ponds, lagoons, septic systems, wells, unusual soil disturbance, stressed vegetation, and electrical transformers.

Field notes of the property reconnaissance are detailed further in the remainder of this report. Photographs taken of the Site are included in Appendix A.

The Site consists of two parcels of land occupied by eight separate operations as described below:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting take place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth.

At this address, Stantec recommends assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPERTY RECONNAISSANCE
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northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building.

At this address, Stantec recommends assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building the fronts Garvey Avenue. No repair activities take place. Staining was observed on the asphalt where the vehicles are parked. The car sales office is located in the northwestern tenant space of the building. The space south of the office is vacant and was not accessible.

Two other tenant spaces are located east of the car sales office, one of which is vacant and the other appeared to be a former or planned clothing retailer. Neither space was accessible but the interiors were partially visible from the storefront windows along Garvey Avenue.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

The second car lot is located adjacent to the east of the previous lot. It is gated and was not accessible. A small office is located along Garvey Avenue. No repair activities appeared to take place at the lot.

A computer store is located in a structure on the southwest corner of Garvey and Consol Avenues. The computer store occupies the northern portion of the structure and the southern portion is occupied by the repair shop described below.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was

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PROPERTY RECONNAISSANCE
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present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard.

Stantec recommends assessment of soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

2736 and 2751 Consol Avenue – trailer park: A trailer park containing various trailers and vehicles and household materials are located south of the repair shop. Much of the surface is asphalt or concrete with a small amount of landscaping.

3.1.1 Surface Drainage

The Site was relatively flat with a slight gradient to the south and precipitation is anticipated to flow that general direction. Some flow was directed towards Tyler Avenue on the properties that front Tyler Avenue.

Stantec observed no improper discharge associated with the Site.

3.1.2 Surface Water and Wetlands

No natural surface water, pits, ponds, lagoons, or wetlands were visually observed at the Site. The Site is not mapped within a wetlands or flood area on the Environmental Data Resources (EDR) Radius Map.

3.1.3 Hazardous Materials Storage Areas

Hazardous materials are those that are manufactured and could have an adverse effect on human health or the environment. Hazardous materials could include but are not limited to: hazardous substances as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); hazardous wastes as defined by the Resource Conservation and Recovery Act (RCRA); and petroleum products.

As described in Section 3.1, hazardous materials are stored in several locations on the Site, primarily in association with the auto body shop and auto repair shop. No evidence of releases or improper storage was observed at the auto body shop along Tyler Avenue. A parts washer is present that utilizes solvents, and Stantec recommends a boring in the vicinity of the parts washer and hazardous materials storage area in the shed. Releases were present and evidence of past releases was visible at the auto repair shop along Consol Avenue. Stantec recommends assessment of the repair bays and yard at the auto repair shop, including the perimeter of the repair bays where drums of hazardous materials are stored and the ground surface where releases of oil are present currently and have occurred historically.

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PROPERTY RECONNAISSANCE
October 28, 2013

3.1.4 Subsurface Structures

Common utilities such as electrical, telephone, and water lines are present at the Site. No groundwater wells or sumps were observed at the Site.

Former underground lifts were visible at the auto body shop and in the flooring warehouse, which may have originally been associated with a historical auto service station at the corner of Tyler and Garvey. Drains were located outside the flooring warehouse at the termination of a trench, and in one of the car sales lots where the vehicles are cleaned. A concrete patch in the same size and shape as a possible former UST or clarifier is located in the central car sales lot. Stantec recommends assessment of the former lifts, trench, drains and concrete patch as described in Section 3.1.

3.2 STORAGE TANKS

Stantec observed no underground storage tanks (USTs) or aboveground storage tanks (ASTs) at the Site nor were any reported to Stantec. However, according to the EDR Radius Map Report, a UST and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. As described in Section 4.2.1, the case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommends soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present.

Additionally, as described in Section 5.1, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site from prior to 1928 through the 1950's. Stantec recommends assessment of the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

3.3 POLYCHLORINATED BIPHENYLS (PCBS)

Electrical transformers, hydraulic equipment capacitors, fluorescent light fixtures, and similar equipment may contain polychlorinated biphenyls (PCBs) in the hydraulic fluids or dielectric insulating fluids within the units. The federal Toxic Substances Control Act (TSCA) generally prohibited the domestic manufacture of PCBs after 1979. There is, however, potential that the dielectric fluid in electrical and hydraulic equipment manufactured and constructed prior to that date contains PCBs.

Former underground lifts were observed in the flooring warehouse and the auto body shop. Due to the age of the lifts, it is possible that the associated hydraulic fluid may have contained PCBs. Stantec recommends assessment of the lifts and analysis of soil for PCBs in the event that oil is reported in soil near the former lifts. Additionally, fluorescent lights were present in several of the buildings. Due to the age of the buildings, Stantec recommends that the light ballasts be properly disposed following removal.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PROPERTY RECONNAISSANCE
October 28, 2013

3.4 LEAD-BASED PAINT (LBP)

Concern for lead-based paint (LBP) is primarily related to residential structures. The EPA's Final Rule on Disclosure of Lead-Based Paint in Housing (40 CFR Part 745) defines LBP as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight.

The risk of lead toxicity in LBP varies based upon the condition of the paint and the year of its application. The U.S. Department of Housing and Urban Development (HUD) has identified the following risk factors:

- The age of the dwelling as follows:
 - The maximum risk is from paint applied before 1950.
 - There is severe risk from paint applied from 1950 to 1960.
 - There is moderate risk from deteriorated paint applied from 1960 to 1970.
 - There is slight risk from the paint that is intact but applied after 1977.
- The condition of the painted surfaces.
- The presence of children and certain types of households in the building.
- Previously reported cases of lead poisoning in the building or area.

Given the age of the existing buildings on Site (constructed by the 1970's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends removing LBP from the Site prior to any activities with the potential to disturb building materials, in accordance with all applicable laws.

3.5 ASBESTOS-CONTAINING MATERIALS (ACMS)

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. The greatest asbestos-related human health risks are associated with friable asbestos, which is ACM that can be reduced to powder by hand pressure. Friable asbestos can become airborne and be inhaled, and has been associated with specific types of respiratory disease. The manufacturing and use of asbestos in most building products was curtailed during the late 1970s.

Given the age of the existing buildings on the Site (constructed by the 1970's), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.

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3.6 SOLID WASTE DISPOSAL ISSUES

A large volume of trash and debris was located on the auto repair property, some of which contains hazardous materials such as oil. Stantec recommends that this debris be handled and disposed properly prior to site development. Minor amounts of debris and trash were located on other properties.

3.7 PESTICIDE ISSUES

Stantec's interpretation of available historical aerial photographs shows that the northwestern corner of the Site was occupied by a gasoline service station from before 1928 through the 1950's, with commercial buildings appearing on the rest of the western parcel beginning in the 1940's. The eastern parcel was historically vacant or residential until the 1950's, when commercial structures were developed on a portion of the parcel. The Site was in its current configuration by 1972. Stantec identified no evidence of previous agricultural use, concludes that pesticides do not represent an environmental concern to the Site, and recommends no further investigation regarding this issue.

3.8 RADON GAS

Radon is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water. Radon is a form of ionizing radiation and an identified carcinogen. Radon in air is ubiquitous. Radon is found in outdoor air and in the indoor air of buildings of all kinds. The U.S. EPA has determined that exposure to 4.0 pCi/L of radon gas on a regular basis increases the risk of lung cancer.

The Site is located in an area designated as Federal EPA Radon Zone Level 2 with a predicted average indoor screening level greater than 2 pCi/L but less than 4 pCi/L. According to the EDR report, the site tested in the 91733 zip code (area of the Site) exhibited levels below 4 pCi/L with the average first floor radon concentration of 0.711 pCi/L. The information regarding this determination is contained in the EDR report attached as Appendix B. Based on this data, the Site lies within an area of low radon risk, radon is unlikely to represent an environmental concern to the Site, and no further assessment is recommended.

3.9 OIL WELLS

Stantec reviewed the Digital Online Mapping System (DOMS) provided on the Department of Oil, Gas, and Geothermal Resources (DOGGR) website in an effort to evaluate if there are any known oil wells in the Site vicinity. According to the DOMS, there are no oil wells within a half mile of the Site. Due to distance, Stantec considers it unlikely that oil wells represent an environmental concern to the Site, and recommends no further investigation regarding this issue.

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3.10 ENVIRONMENTAL SETTING

The Site is located in Los Angeles County. The area is located within the Peninsular Ranges Geomorphic Province, which includes northwest-southeast trending mountain ranges and valleys that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The stratigraphy underlying the Site consists primarily of recent-age alluvium (CDMG, 1965).

The Site is at an elevation of approximately 270 feet above mean sea level. The regional topographic gradient is to the southwest (USGS, 1966).

The closest mapped recently active fault is a fragment of the Whittier Fault located approximately 2 miles southwest (CGS, 2010). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary but is within a liquefaction zone (CDMG, 2000).

The Site is located within the San Gabriel Valley Groundwater Basin. The basin is located within the eastern portion of Los Angeles County and includes most of San Gabriel Valley and part of the Santa Ana Valley. The basin is constrained by bedrock and faults on all sides. Several aquifers are present in the basin and water-bearing units consist of Holocene alluvium up to 4,100 feet in thickness and Pleistocene marine deposits up to 2,000 feet in thickness (Department of Water Resources [DWR], 2004). Groundwater in this area is estimated to be between 55 and 80 feet below ground surface (bgs) with a general flow to the southwest as based on information available on Geotracker for a facility located approximately 950 feet to the west (State Water Resources Control Board [SWRCB], 2013).

3.11 ADJACENT SITE RECONNAISSANCE

Stantec conducted an area reconnaissance to identify adjacent properties of potential environmental concern (Figure 2). Observations of these properties were restricted to those areas readily observable from the public right-of-way. The surrounding area consists of Tyler Avenue followed by auto sales and repair and commercial buildings to the west, Garvey Avenue followed by a restaurant, retail and repair shops to the north, Consol Avenue followed by a motel and residences to the east, and residential properties and a church/temple to the south (see Figure 2). No RECs were identified on adjacent properties.

3.12 SITE INTERVIEW

The manager of the auto body shop at 2818 Tyler Avenue stated that there are no subsurface features at the Site and that all paints were water-based. The manager/owner of the flooring business at 2880 Tyler Avenue stated that the warehouse is used for inventory storage and also for a small showroom. The owner of

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the car sales business at 11022 Garvey Avenue stated that no repair takes place onsite, and that the rear of the building in which his office resides is vacant and he had no access to those spaces. The employees of the auto repair business at 11048-11068 Garvey Avenue stated that there are no subsurface features onsite.

3.13 USER PROVIDED INFORMATION

Prior to initiating the Site reconnaissance, Stantec requested information relevant to performance of this Phase I ESA with a written questionnaire submitted to the user of this report. A copy of the questionnaire completed by Mr. Joe Oftelie with City Ventures is provided in Appendix D. The significant information provided by Mr. Oftelie is summarized below.

1. Information on Environmental Cleanup Liens on Site? **No**
2. Information on Site Activity or Use Limitations (including Institutional and Engineering Controls)? **No**
3. Specialized knowledge or experience of the User: **No**
4. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? **Yes**
5. Commonly known or reasonably ascertainable information about the Site? **Previously used for automotive-related purposes.**
6. The degree of obviousness or the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation? **No**

3.14 SPECIALIZED KNOWLEDGE OR EXPERIENCE

The Federal AAI rule (40 CFR §312.28) and ASTM E1527-05 require that all appropriate inquiry must take into account relevant and applicable specialized knowledge and experience on the part of the User regarding the Site, the area surrounding the Site, the conditions of adjoining properties, and any other experience relevant to identifying RECs on the Site.

Mr. Oftelie indicated that the Site was historically used for automotive-related purposes but knows of no specific RECs for the Site.

3.15 PURCHASE PRICE VS. PROPERTY VALUE

The Federal AAI rule (40 CFR §312.29) and ASTM E1527-05 require that persons seeking defense to or protection from liability under CERCLA must take into account the relationship of the purchase price to the fair market value of the property if it were not contaminated to assess whether or not the differential is due to the presence of releases or threatened releases of hazardous substances. This portion of the inquiry is the responsibility of the User, and the User has the option of sharing or not sharing this information with the Environmental Professional performing the Phase I ESA.

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Stantec has not performed an independent evaluation of the purchase price of the property and its relationship to fair market value. Stantec submitted a written questionnaire to the User (identified in Section 3.14) inquiring about the User's knowledge regarding the relationship of the purchase price to the fair market value of the property if it were not contaminated.

Mr. Oftelie believes that the purchase price of the Site reasonably reflects the fair market value and has not been reduced due to any environmental issues.

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PUBLIC RECORD REVIEW SECTION
October 24, 2013

4.0 PUBLIC RECORD REVIEW SECTION

4.1 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from a third-party environmental database search firm (Environmental Data Resources/EDR). A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix B.

4.1.1 Database Assessment Criteria

Research into environmental regulatory agency database listings was performed by a third-party environmental regulatory agency database search firm. The purpose of the review was to identify reported environmental issues for the Site and other properties in the vicinity. The database search firm utilized the more stringent of the approximate minimum search distances specified in the Scope of Work for each of the referenced Federal and state environmental databases. The definition of the databases searched and the associated search distances from the Site are identified in the regulatory agency database search report.

The regulatory agency database search report lists a number of sites identified as "unmappable." The database search firm was unable to confirm the physical locations of these sites relative to the Site or to assess whether they were located within the designated search radii. Stantec independently reviewed the locations of these "unmappable" sites, to the extent possible, using various maps and our knowledge of the Site area. Any of the "unmappable" sites determined to be within the designated search radii were included in our evaluation of the various listed sites potential to result in a recognized environmental condition relative to the Site.

Stantec reviewed the results of the database search report to note reported release sites in the vicinity of the Site that were considered to have a potential to have adversely impacted the Site (i.e., are known to have or are expected to result in recognized environmental conditions). Reported release sites identified in the regulatory agency database search report were evaluated with respect to the nature and extent of a given release, the distance of the reported release site from the Site, the stratigraphy of soils, the expected soil permeability, and the topographic position of a reported release site with respect to known or expected local and/or regional groundwater flow direction.

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Those release sites that were considered likely to have impacted the Site are identified in the report as recognized environmental conditions, as defined in ASTM 1527. Sites that were listed in the database search report, but not identified as a release site (for example, a site listed as a hazardous waste generator but not as having had a release), and sites that were listed as being "closed" were considered unlikely to have impacted the Site or to represent an environmental concern to the Site.

4.1.2 Site Listing Review

The Site is listed in the Hist Auto Stat, RCRA-SQG, FINDS, Los Angeles Co. HMS, WIP, HAZNET, HIST CORTESE and LUST databases under the addresses 11022 Garvey Avenue and 2806 Tyler Avenue.

The Site is listed as disposing of waste oil and being a small quantity generator. The Los Angeles Co. HMS database lists the site status as "removed". The listing in the WIP database is likely related to the regional groundwater plume in the vicinity of the Site, which is shown as not extending beneath the Site.

The Site address of 11022 Garvey Avenue is listed in the LUST database for a release of gasoline to soil. The case status is shown as closed. The USTs are discussed further in Sections 3.2 and 4.2.1.

The addresses of 2818 and 2880 Tyler and 11044 Garvey Avenue, which are a portion of the Site, are shown as adjacent properties in the EDR Radius Map Report. They are listed in the WIP and Hist Auto Stat databases.

4.1.3 Area Listing Review

The database evaluations in this section include a consideration of the regional geology and hydrogeology discussed in Section 3.11. Groundwater is expected between 55 and 80 feet bgs with a predominantly southwesterly flow direction.

Generally, reported release sites located within ¼ mile were considered to have a potential to represent an environmental concern to the Site. Facilities which were listed in the database search report but not identified as a release site, such as a hazardous waste generator or recycling facility, were not considered unlikely to represent an environmental concern to the Site.

The complete database listings of records detailed above prepared by EDR and a map showing the location of the search radius relative to the Site is presented in Appendix B. The result of Stantec's review of area sites identified in the EDR report, by database listing, is discussed below.

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PUBLIC RECORD REVIEW SECTION
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LUST

The LUST database identifies facilities with reported past or present leaking underground storage tanks. Based on the EDR report, there are two LUST facilities located within an eighth mile radius of the Site. They are discussed below:

- **San Gabriel Valley Water Co.** is located at 11142 Garvey Ave., approximately 264 feet east northeast and up-gradient of the Site. This facility is cross-referenced under the HIST UST, Los Angeles Co. HMS, UST, CA FID UST, SWEEPS UST, WIP and EMI databases. The facility is listed for a release of gasoline to an unspecified media. The facility received case closure from the Los Angeles Department of Public Works (DPW) in 2007. Given the facility was granted case closure and the depth to groundwater, this facility is considered unlikely to represent an environmental concern to the Site.
- **Tosco – 76 Station #2657** is located at 11225 E. Garvey Ave., approximately 592 feet east northeast and up-gradient of the Site. This facility is cross-referenced under the HIST CORTESE, CA FID UST, SWEEPS UST, and Los Angeles Co. HMS databases. The facility is listed for a release of gasoline to groundwater and the case is now closed. Groundwater flow direction at this site is reported as southerly and following soil vapor extraction and verification monitoring, the case was given closure. Given the impact was determined to be localized and impact a localized section of soil, the facility was granted case closure on July 9, 2013. Given the facility underwent remediation and was granted case closure and the most recent groundwater monitoring report shows very low to non-detectable concentrations of hydrocarbons, this facility is considered unlikely to represent an environmental concern to the Site.

Notify 65

The Notify 65 database identifies facilities with reported Proposition 65 incidents, but has not been updated since 1993. Based on the EDR report, there is one Notify 65 facility located within an eighth mile radius of the Site:

- **Red and Art's Radiator** is located at 11029 E. Garvey Ave., approximately 62 feet northwest and cross-gradient of the Site. This facility is cross-referenced under the WIP, RCRA-SQG and FINDS databases. No details are available regarding the incident. Given the time that has elapsed since the listing in the database and the lack of any other reported releases or cleanups at the facility in other databases since that time and also the cross-gradient location across Garvey

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Avenue, this facility is considered unlikely to represent an environmental concern to the Site.

RCRA databases

The RCRA-SQG database identifies facilities that generate, transport, store, treat and/or dispose of hazardous materials between 100 kg and 1,000 kg of hazardous waste per month. The RCRA-LQG database identifies facilities that generate, transport, store, treat and/or dispose of hazardous materials greater than 1,000 kg of hazardous waste per month. The RCRA-NonGen database identifies facilities that do not currently generate hazardous materials. Based on the EDR report, there is one (1) RCRA facility within an eighth mile radius of the Site.

Leon Auto Service is located at 11058 Garvey Avenue., which is approximately 61 feet north northeast of the Site. It is cross-listed in the FINDS, HAZNET and Hist Auto Stat. databases. This is an SQG listing.

Due to a lack of any reported releases, this facility is considered unlikely to represent an environmental concern to the Site.

UST databases

This includes listings for several databases that report historical and current USTs. Based on the EDR report, there is one listed facility within an eighth mile of the Site not discussed under other databases.

Jim Price is located at 10968 Garvey Ave., which is approximately 224 feet west northwest of the Site. It is cross-listed in the Hist Auto Stat database.

Due to a lack of any reported releases and cross-gradient location with respect to groundwater flow, this facility is considered unlikely to represent an environmental concern to the Site.

EDR US Hist Auto Stat

Based on the EDR report, there are twelve (12) of these facilities located within an eighth-mile radius of the Site. Some are discussed under other databases above. Some are located across Garvey Avenue to the north. Due to depth to groundwater and the lack of reported releases and/or violations, these facilities are considered unlikely to represent an environmental concern to the Site.

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WIP

Based on the EDR report, there are seven (7) of these facilities located within an eighth-mile radius of the Site. Some are discussed under other databases above. Some are located across Garvey Avenue to the north. Inclusion in this database is likely a result of the regional groundwater plume, which is in the vicinity of the Site but not mapped as extending beneath the Site. Therefore, these facilities are considered unlikely to represent an environmental concern to the Site.

"Unmappable" sites

Twenty-four "unmappable sites" were listed in the EDR report and their locations were reviewed by Stantec. Due to distance, the "unmappable sites" are considered unlikely to represent an environmental concern to the Site.

4.2 CITY, COUNTY AND STATE RECORDS REVIEW

4.2.1 County of Los Angeles Department of Public Works (LADPW)

Stantec researched available records from the LADPW. Records were on file for the removal of a 1,000-gallon gasoline UST and dispenser located at 11022 Garvey Avenue that occurred on December 19, 1989. Hydrocarbon odors were reported immediately beneath the dispenser. One (1) sample was taken from beneath the dispenser and one (1) from beneath the tank. Samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 8015m and for volatile organic compounds (VOCs) by EPA method 8020. The sample from beneath the tank reported no TPH above laboratory reporting limits and toluene at 0.013 milligrams per kilogram (mg/kg). Benzene, ethylbenzene, and xylenes were not reported above laboratory reporting limits. The sample from beneath the dispenser reported TPH as gasoline at 37 mg/kg and benzene, ethylbenzene, toluene and xylenes (BTEX) at 0.009 mg/kg, 0.14 mg/kg, 0.082 mg/kg and 1.15 mg/kg, respectively. Closure was granted for the UST in a letter dated September 25, 1990. Due to the limited analytical methods and testing completed during that time period and the confirmed impact to soil, Stantec recommends soil and soil vapor sampling to determine whether the Site has been impacted by the former UST and dispenser above current regulatory action levels.

4.2.2 Regional Water Quality Control Board

Stantec searched for available files for the Site on the RWQCB Geotracker website (<https://geotracker.waterboards.ca.gov>). According to the Geotracker website, the Site had a release of gasoline to soil at address 11022 Garvey Avenue. The case is listed as closed as of September 20, 1990 which correlates with the above-described tank closure. No additional documentation was available on Geotracker and no other site addresses are listed in the database.

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4.2.3 City of El Monte Building Department

Stantec submitted a request to the City of El Monte Building Department to research whether any documents were on file for the Site. As of the writing of this report, a response had not yet been received. Should records become available that affect the conclusions and recommendations in this report, Stantec will issue an addendum to the report. Based on its review of other sources, however, Stantec considers it unlikely that any records from this agency would alter the conclusions or recommendations of this report.

4.2.4 Summary of Findings from Environmental Records Review

Records on file with the LADPW report that a 1,000-gallon gasoline UST and dispenser were previously located at address 11022 Garvey Avenue. The UST was removed, minor impact was detected in soil and closure was issued in 1990. However, due to the limited analytical methods and testing completed during that time period and the confirmed impact to soil, Stantec recommends soil and soil vapor sampling to determine whether the Site has been impacted by the former UST and dispenser above current regulatory action levels.

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HISTORICAL RECORDS REVIEW
October 28, 2013

5.0 HISTORICAL RECORDS REVIEW

5.1 AERIAL PHOTOGRAPHIC REVIEW

Aerial photographs for the Site and surrounding areas were obtained from EDR to evaluate historical usage of the site and adjacent properties. The photographs were also reviewed to evaluate any discernible evidence of potential sources of negative environmental impact at the site. The general activity on a property and land use changes can often be discerned from the type and layout of structures visible in aerial photographs and maps; however, specific elements of a site operation cannot normally be determined.

The following aerial photographs of the Site and surrounding areas were examined during Stantec's historical investigations.

1. Year: 1928

The Site is vacant with the exception of the northwestern corner at what is now the intersection of Garvey and Tyler Avenues. The northwest corner is occupied by four small structures that are oriented in a layout similar to a gasoline service station. The remainder of the Site is vacant, native land. What will become Tyler Avenue is in place to the west of the Site, with the northern portion paved and the southern portion unpaved. Garvey Avenue is in place to the north of the Site but terminates at Tyler Avenue. The immediate vicinity of the Site is mostly vacant, with one structure located on the property adjacent to the west. Lightly developed residential areas are located further to the west and north, and agricultural properties are interspersed with vacant land further to the east and south.

2. Year: 1938

The gasoline service station is still present on the northwestern corner of the Site. Small structures similar to residences are present on the eastern parcel of the Site. What will become Consol Avenue is present to the east of the Site. Garvey Avenue now extends to the east of the Site. The areas to the east, west and south of the Site are mostly residential with the property adjacent to the west across Tyler Avenue possibly agricultural (hay bales). The area to the north is lightly developed commercial properties followed by agricultural and residential properties.

3. Year: 1948

The gasoline service station is still in place on the northwestern corner of the Site. Some commercial buildings are present on the western parcel of the Site to the east and southeast of the service station. The eastern parcel is native or residential land. Commercial properties followed by a school campus are located north

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across Garvey Avenue. A service station is located adjacent to the northwest across the intersection of Tyler and Garvey Avenues, and possibly on the property to the west across Tyler Avenue. A mixed commercial/vacant property is located to the west across Tyler Avenue. Vacant and residential land is located to the south and east. Most of the area is now residential with commercial development along major roadways.

4. Year: 1952

Portions of the service station are still in place on the northwestern corner of the Site, but the canopy does not appear to be present. Otherwise, the western parcel appears similar to the previous photograph. The eastern parcel is mostly residential but now has two commercial structures along Consol Avenue. The vicinity appears similar to the previous photograph.

5. Year: 1968

The service station is no longer present on the northwest corner of the Site. The three commercial structures that are presently on the western parcel are in their current configurations. The eastern parcel appears to have additional small commercial-type structures but the photograph is somewhat unclear. The property adjacent to the south now has a commercial structure. Properties across Consol Avenue to the east and Tyler Avenue to the west have been developed with commercial structures. The service station to the northwest is no longer present. The remainder of the vicinity is similar to the previous photograph. The 10 Freeway is now in place to the north of the Site and Consol Avenue is paved.

6. Year: 1972

The Site appears to be in its current configuration on both the western and eastern parcels. Car lots appear to be present along Garvey Avenue. The vicinity is similar to the previous photograph.

7. Year: 1989

The Site and vicinity appear similar to the previous photograph.

8. Year: 1994

The Site and vicinity appear similar to the previous photograph.

9. Year: 2005

The Site and vicinity appear similar to the previous photograph.

Stantec's interpretation of available historical aerial photographs show that the northwestern corner of the Site was occupied by a gasoline service station from before

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HISTORICAL RECORDS REVIEW
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1928 through the 1950's, with commercial buildings appearing on the rest of the western parcel beginning in the 1940's. The eastern parcel was historically vacant or residential until the 1950's, when commercial structures were developed on a portion of the parcel. The Site was in its current configuration by 1972. Stantec has identified the presence of a gasoline service station as an REC to the Site, and recommends further investigation regarding this issue.

Two service stations are visible on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations will be addressed by the assessment of the previous service station in the northwest corner of the Site. Copies of the Historical Aerial Photographs are provided in Appendix C.

5.2 FIRE INSURANCE MAPS

Sanborn Fire Insurance Maps were not available for the Site. A copy of the Sanborn Fire Insurance Map Report is provided in Appendix C.

5.3 HISTORICAL TOPOGRAPHIC MAP REVIEW

Available historical topographic maps were requested from Environmental Data Resources for the Site and surrounding properties.

1. Year: 1896/1900/1901

No site detail is visible but the area appears to be lightly developed.

2. Year: 1953

The Site is shown as developed via pink shading. Current roadways are in place. City hall and a school are shown north across Garvey Avenue. Most of the area is shown as developed but without any detail provided.

3. Year: 1966

The Site and vicinity are similar to the previous map.

4. Year: 1972

The Site and vicinity are similar to the previous map.

5. Year: 1981

The Site and vicinity are similar to the previous map.

6. Year: 1994

The Site and vicinity are similar to the previous map.

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HISTORICAL RECORDS REVIEW
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Stantec's interpretation of available topographic maps shows that the Site was developed by 1953. Stantec observed no RECs based on its review of the topographic maps.

5.4 CITY DIRECTORY

Stantec reviewed the historical city directory abstract provided by EDR. City directories were available for the Site from 1920 until 2012. The Site address of 11022 Garvey Avenue is listed in the directories as LeeCo Transmission and Sus Amigos Auto in 2006, Car Country in 1999, Diamond Motors in 1995, Crown Transmission Exchange and House of Credit Auto Sales/Meli Bob in 1985, Volkswagen Coach Works and Woolverton & Sons Inc Garvey Ave El Monte in 1975 and 1980, and Woolverton & Sons Inc. in 1966, 1975 and 1976. The Site address of 2806 Tyler Avenue is listed in the directories as Hai Nam Association in 2012 and Howland Electric Wholesale between 1976 and 2006. The Site address of 11048 Garvey Avenue is listed as El Baratisimo Auto Sales in 2012, Enterprises and Best Price Auto Sales Lugano in 2006, El Monte Used Car Sales in 1995 and 1999, Sentano Auto Sales in 1980 and 1985, and Golden State Trailer Transport in 1966. Address 11058 Garvey Avenue is listed as Insurance Auto Service and Astro Star in 2006, Auto Service Leon and America Insurance in 1999, Action Glass and Screen Company in 1985, El Monte Paint and Glass in 1975 and 1980 and also as Dossinger Leonard B RL EST in 1975. City directory listings indicate historical use of the Site as including automotive service. Current and historical features of automotive service are present at the Site, and as described in Section 3.1, Stantec recommends assessment of these features.

A review of surrounding properties indicated residences and commercial businesses including a credit union, upholstery company, Laundromat, auto repair, restaurants, radiator service, a printing company, highway patrol, market, hardware store, motel and gas station. A Chevron station is listed at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the aerial photographs on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations will be addressed by the assessment of the previous service station in the northwest corner of the Site. A copy of the complete City Directory Abstract is provided in Appendix C.

5.5 FORMER REPORTS

Stantec was not provided with any former reports for the Site.

5.6 OTHER HISTORICAL SOURCES

Stantec was not provided with additional historical sources for the Site.

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HISTORICAL RECORDS REVIEW
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5.7 SUMMARY OF FINDINGS FROM HISTORICAL RECORDS REVIEW

Stantec's interpretation of available historical aerial photographs shows that the northwestern corner of the Site was occupied by a gasoline service station from before 1928 through the 1950's, with commercial buildings appearing on the rest of the western parcel beginning in the 1940's. The eastern parcel was historically vacant or residential until the 1950's, when commercial structures were developed on a portion of the parcel. The Site was in its current configuration by 1972. Stantec has identified the presence of a gasoline service station as an REC to the Site, and recommends further investigation regarding this issue.

City directory listings indicate historical use of the Site as including automotive service. Current and historical features of automotive service are present at the Site, and as described in Section 3.1, Stantec recommends assessment of these features.

A Chevron station is listed at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the aerial photographs on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations will be addressed by the assessment of the previous service station in the northwest corner of the Site.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS
October 28, 2013

6.0 CONCLUSIONS AND RECOMMENDATIONS

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California (the "Site"). Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527-05 (and Final Rule 40 CFR Part 312 et seq.) with respect to the Site. Any exceptions to, or deletions from, this practice are described in Section 1.2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Site, except for the following:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth.

At this address, Stantec recommends assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS
October 28, 2013

At this address, Stantec recommends assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, a UST and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommends soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec recommends assessment of the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard.

Stantec recommends assessment of soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS
October 28, 2013

Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations will be addressed by the assessment of the previous service station in the northwest corner of the Site.

Additionally, the following non-ASTM conditions were identified for the Site:

- Given the age of the existing buildings on Site (constructed by the 1970's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends removing LBP from the Site prior to any activities with the potential to disturb building materials, in accordance with all applicable laws.
- Given the age of the existing buildings on the Site (constructed by the 1970's), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.
- Fluorescent lights were present in several of the buildings. Due to the age of the buildings, Stantec recommends that the light ballasts be properly disposed following removal.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

LIMITATIONS
October 28, 2013

7.0 LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and existing at this time. The use of this report is subject to the following limitations:

1. The data and findings presented in this report are valid as of the dates when the investigations were performed. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.
2. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Work, budgetary constraints, site access and schedule, as defined in the contract with Stantec.
3. This report is based, in part, on unverified information supplied to Stantec by third party sources, such as regulatory agencies, prior owners or operators of the property, analytical laboratories, subcontractors, etc. Whereas efforts may have been made to substantiate this third party information, Stantec cannot guarantee the completeness or accuracy of this information.
4. The findings, observations and conclusions expressed by Stantec in this report are not, and should not be considered an opinion concerning the compliance of any past or present owner or operator of the Site with any Federal, state or local law or regulation.
5. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon Site conditions in existence at the time of investigation.
6. Stantec Reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, state or local governmental agencies. Issues raised by the report should be reviewed by appropriate legal counsel.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

LIMITATIONS

October 28, 2013

7. This report is intended for the sole and exclusive use of Stantec's client. No other person or entity shall be entitled to rely on or use this report without Stantec's expressed written authorization. (Any such written authorization shall involve a "reliance letter" issued at Stantec's discretion and agreed to any executed by such user). If any unauthorized use or reliance occurs, it shall be at the user's sole risk without liability to Stantec.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

REFERENCES

October 28, 2013

8.0 REFERENCES

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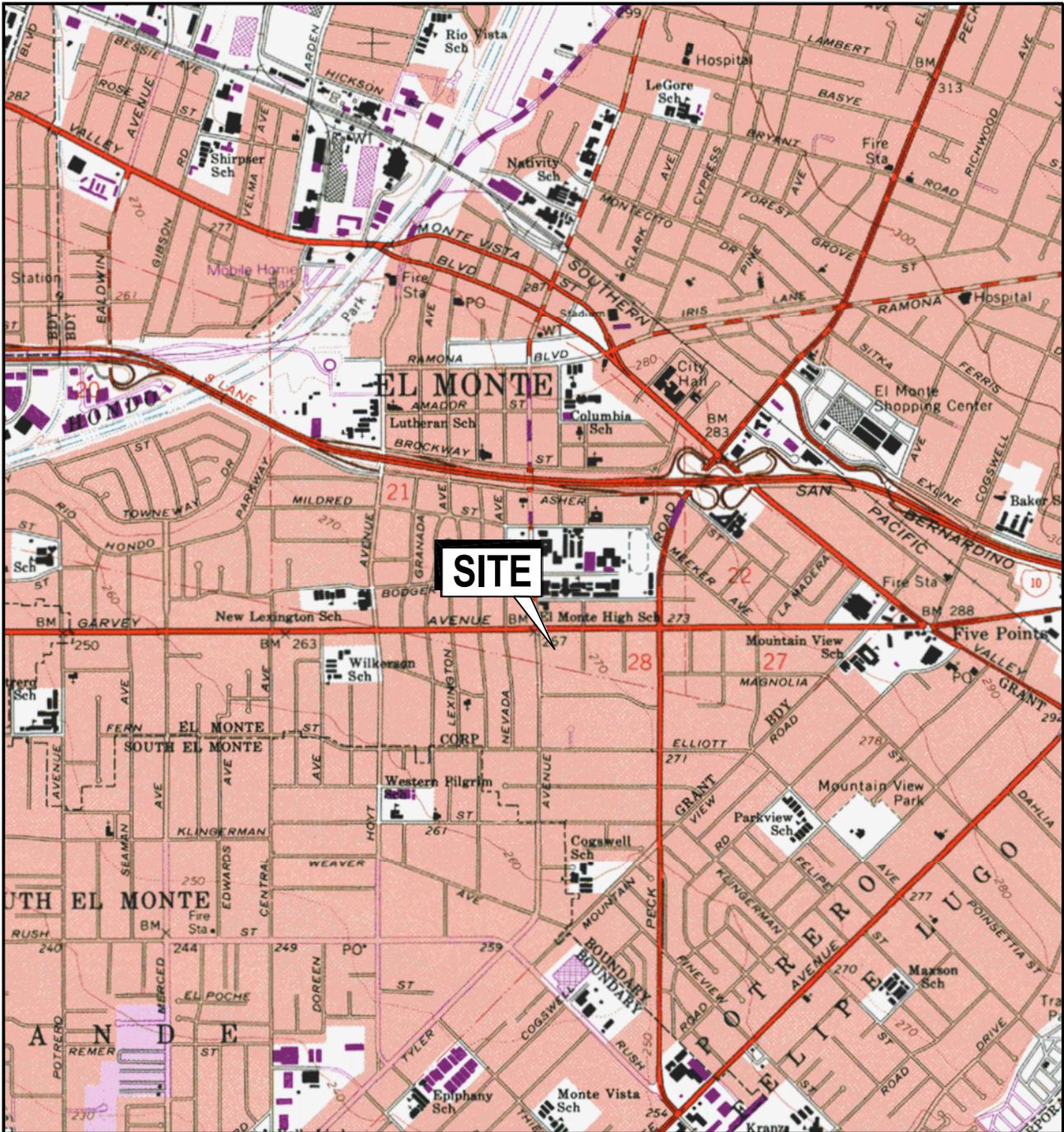
_____, Historical Topographic Map Report, Inquiry Number 3721288.4, dated September 9, 2013.

_____, Aerial Photo Decade Package, Inquiry Number 3721288.5, dated September 12, 2013.

_____, City Directory Image Report, Inquiry Number 3721288.6, dated September 9, 2013.

United States Geological Survey (USGS), 1966, El Monte Quadrangle, 7.5 Minute Topographic Map, Scale 1 inch = 2,000 feet, photo revised 1994.

FIGURES



Reference: U.S.G.S., 1966, Baldwin Park Quadrangle California - Los Angeles County, 7.5' Series Topographic. Photorevised 1981.



NORTH
SCALE
1 inch = 2000 feet
0 1000 2000



CALIFORNIA
QUADRANGLE LOCATION



25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA
PH (909) 335-6116 FAX (909) 335-6120

FOR:
CITY VENTURES
TWO PARCELS
SEC CORNER GARVEY AND TYLER AVES.
EL MONTE, CALIFORNIA

JOB NUMBER:
185803086

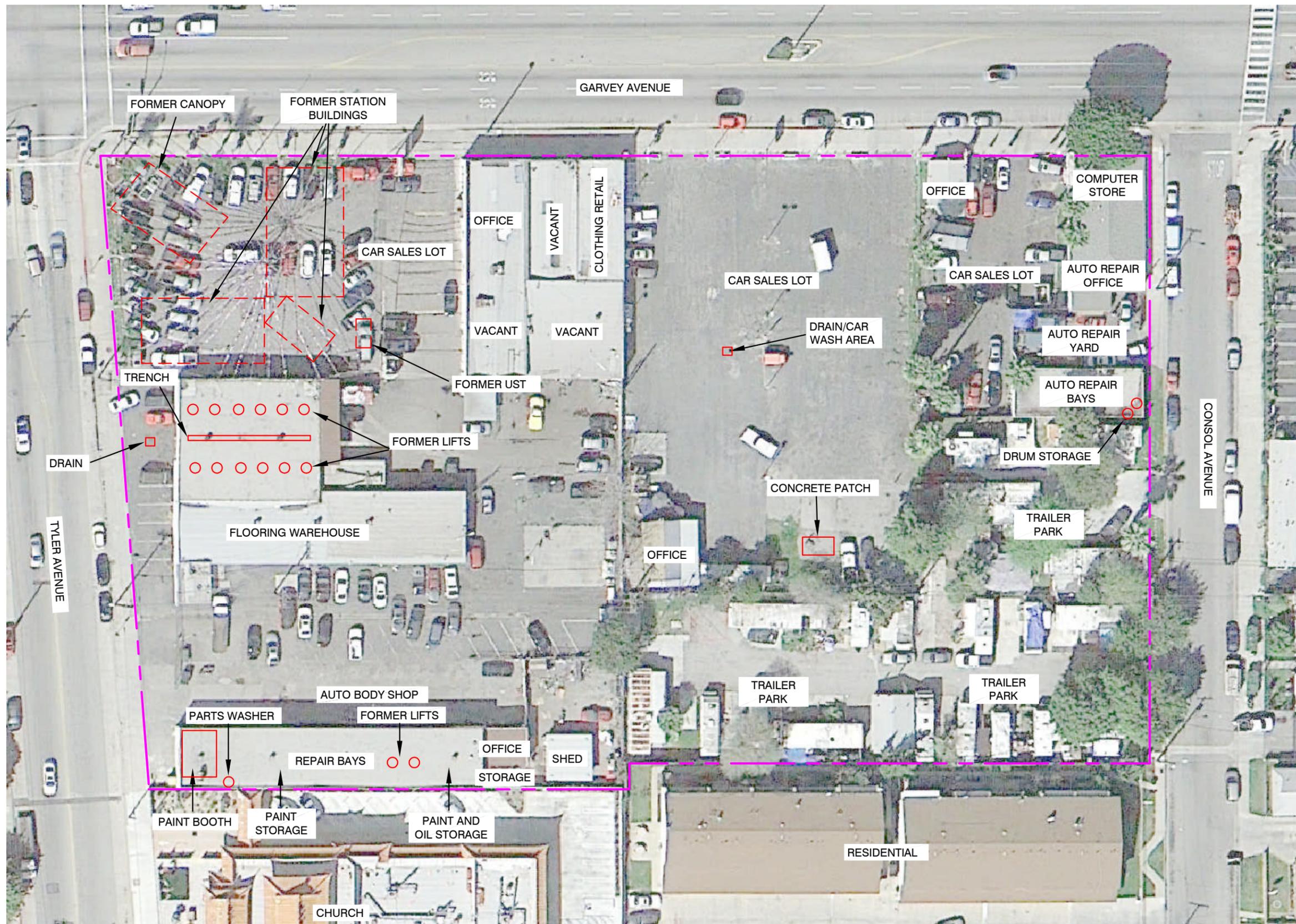
DRAWN BY:
KD

CHECKED BY:
KD

APPROVED BY:
KE

FIGURE:
1
DATE:
10/1/13

SITE LOCATION MAP



LEGEND:



 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120	FOR: CITY VENTURES MULTIPLE MIXED USE PARCELS SEC CORNER GARVEY AND TYLER AVES. EL MONTE, CALIFORNIA		SITE MAP		FIGURE: 2
	JOB NUMBER: 185803086	DRAWN BY: KD	CHECKED BY: KD	APPROVED BY: KE	DATE: 10/1/13

**APPENDIX A
PHOTOGRAPHIC RECORD**

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 1



View of the north side of the body shop structure along Tyler Avenue.

Photograph No. 2



Compressor with minor staining in the shed east of the building.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 3



Shelved storage of small volumes of hazardous materials such as motor oil, antifreeze, and lube.

Photograph No. 4



One of two former hydraulic lifts in the repair area.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures

Job Number: 185803018

Site Name: SEC Garvey and Tyler Avenues

Location: El Monte, CA

Photographer: Kristen Daly

Date: September 13, 2013

Photograph No. 5



Oil drum and equipment and parts in the repair area.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 6



Anchor points for vehicles.

Photograph No. 7



Example of paint and small volume hazardous materials storage.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 8



A solvent-based parts washer near the paint booth.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 9



Exterior of the paint booth.

Photograph No. 10



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Former boring location and boring marking near Tyler Street outside the body shop.

Photograph No. 11



Tile and flooring warehouse north of the body shop.

Photograph No. 12



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

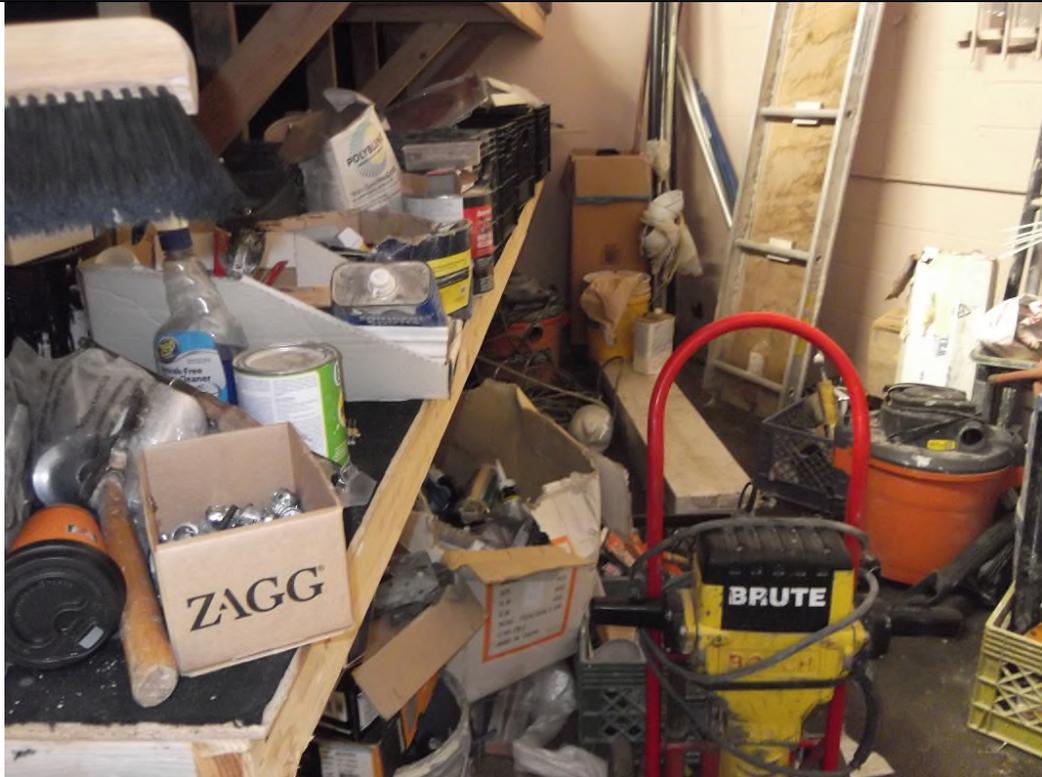
Storage in the warehouse of the flooring supplier.

Photograph No. 13



Example of a former hydraulic lift in the flooring warehouse.

Photograph No. 14



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Storage area in the flooring warehouse.

Photograph No. 15



Car sales lot at the SEC of Tyler and Garvey.

Photograph No. 16



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Example of staining on the asphalt of a car sales lot.

Photograph No. 17



Fenced yard behind (east of) the flooring warehouse, with unknown subsurface feature on the right..

Photograph No. 18



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Concrete pad in SE corner of car sales lot.

Photograph No. 19



Interior space of a multiunit building. This space was vacant and inaccessible.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 20



Drains in the lot of the central car sales lot of the Site.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 21



Corner of a concrete pad in the southern portion of the central car lot.

Photograph No. 22



A computer store in the multi-tenant building at the northeast corner of the Site.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 23



Car repair center along Consol Avenue.

Photograph No. 24



View of the main service bays at the auto repair facility.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 25



Waste oil and coolant drums with floor staining and kitty litter spread to address spills.

Photograph No. 26



Parts and tires stored in the service bays.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 27



Spills on the concrete floor of the service bays.

Photograph No. 28



Storage on the auto repair property.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client: City Ventures	Job Number: 185803018
Site Name: SEC Garvey and Tyler Avenues	Location: El Monte, CA
Photographer: Kristen Daly	Date: September 13, 2013

Photograph No. 29



Entrance to the trailer park along Consol Avenue.

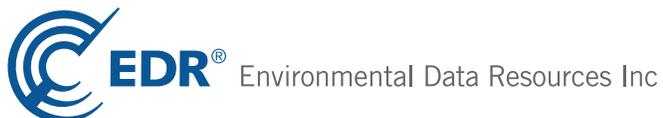
APPENDIX B
ENVIRONMENTAL DATABASE REPORT

El Monte

2806 Tyler Avenue & 11006-11028 Garvey Avenue
South El Monte, CA 91733

Inquiry Number: 3721288.2s
September 09, 2013

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

2806 TYLER AVENUE & 11006-11028 GARVEY AVENUE
SOUTH EL MONTE, CA 91733

COORDINATES

Latitude (North): 34.0624000 - 34° 3' 44.64"
Longitude (West): 118.0347000 - 118° 2' 4.92"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 404513.5
UTM Y (Meters): 3769363.0
Elevation: 271 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 34118-A1 EL MONTE, CA
Most Recent Revision: 1994

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2012
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
11022 GARVEY AVE 11022 GARVEY AVE SOUTH EL MONTE, CA 91733	EDR US Hist Auto Stat	N/A
LEE CO TRANSMISSION EXCHANGE 11012 E GARVEY AVE EL MONTE, CA	RCRA-SQG FINDS	CAD983657578
11012 GARVEY AVE 11012 GARVEY AVE SOUTH EL MONTE, CA 91733	EDR US Hist Auto Stat	N/A
HOWLAND ELECTRIC WHOLESALE 11022 E GARVEY AVE EL MONTE, CA	LOS ANGELES CO. HMS	N/A

EXECUTIVE SUMMARY

HOWLAND ELECTRIC WHOLESALE CO. 2806 TYLER AVE EL MONTE, CA 91733	WIP	N/A
PORTOFOLIO MANAGEMENT LLC 11012 GARVEY AVE EL MONTE, CA 91733	HAZNET	N/A
M & M CAR WORLD 11022 GARVEY EL MONTE, CA 91733	HIST CORTESE LUST Status: Completed - Case Closed	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators

EXECUTIVE SUMMARY

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US INST CONTROL..... Sites with Institutional Controls
LUCIS..... Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land
FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
WMUDS/SWAT..... Waste Management Unit Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
SCH..... School Property Evaluation Program
Toxic Pits..... Toxic Pits Cleanup Act Sites
CDL..... Clandestine Drug Labs
US HIST CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

EXECUTIVE SUMMARY

LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing
SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators
DOT OPS..... Incident and Accident Data
DOD..... Department of Defense Sites
FUDS..... Formerly Used Defense Sites
UMTRA..... Uranium Mill Tailings Sites
US MINES..... Mines Master Index File
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS..... Section 7 Tracking Systems
ICIS..... Integrated Compliance Information System
PADS..... PCB Activity Database System
MLTS..... Material Licensing Tracking System
RADINFO..... Radiation Information Database
RAATS..... RCRA Administrative Action Tracking System
RMP..... Risk Management Plans
CA BOND EXP. PLAN..... Bond Expenditure Plan
UIC..... UIC Listing
NPDES..... NPDES Permits Listing
Cortese..... "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings..... CUPA Resources List
LA Co. Site Mitigation..... Site Mitigation List
DRYCLEANERS..... Cleaner Facilities
ENF..... Enforcement Action Listing
EMI..... Emissions Inventory Data
INDIAN RESERV..... Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR..... Financial Assurance Information
EPA WATCH LIST..... EPA WATCH LIST
WDS..... Waste Discharge System
PRP..... Potentially Responsible Parties
US AIRS..... Aerometric Information Retrieval System Facility Subsystem
2020 COR ACTION..... 2020 Corrective Action Program List
LEAD SMELTERS..... Lead Smelter Sites
Financial Assurance..... Financial Assurance Information Listing
HWP..... EnviroStor Permitted Facilities Listing
HWT..... Registered Hazardous Waste Transporter Database
COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List
COAL ASH DOE..... Steam-Electric Plant Operation Data
MWMP..... Medical Waste Management Program Listing

EXECUTIVE SUMMARY

PCB TRANSFORMER..... PCB Transformer Registration Database
PROC..... Certified Processors Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 04/26/2013 has revealed that there is 1 NPL site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL VALLEY (AREA 1)</i>	<i>PECK RD & REAL</i>	<i>ESE 1/4 - 1/2 (0.442 mi.)</i>	<i>0</i>	<i>13</i>

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 04/26/2013 has revealed that there is 1 CERCLIS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL VALLEY (AREA 1)</i>	<i>PECK RD & REAL</i>	<i>ESE 1/4 - 1/2 (0.442 mi.)</i>	<i>0</i>	<i>13</i>

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/18/2013 has revealed that there are 7 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEON AUTO SVC	11058 E GARVEY AVE	NNE 0 - 1/8 (0.012 mi.)	A17	64
RED & ARTS RADIATOR	11029 EAST GARVEY	NW 0 - 1/8 (0.017 mi.)	A21	67
SHELL OIL CO	11301 GARVEY	E 1/8 - 1/4 (0.190 mi.)	I44	89
RAMIREZ SHELL	11301 E GARVEY	ENE 1/8 - 1/4 (0.195 mi.)	I54	97
CHIKOIS AUTO SALES	2728 PECK RD	ESE 1/8 - 1/4 (0.219 mi.)	N66	102
CARBURERTOR CENTER	2717 N. PECK ROAD	ESE 1/8 - 1/4 (0.222 mi.)	N68	104
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
M & M AUTO REPAIR	2607 N TYLER	SSW 1/8 - 1/4 (0.222 mi.)	J70	106

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 03/14/2013 has revealed that there is 1 US ENG CONTROLS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY (AREA 1)	PECK RD & REAL	ESE 1/4 - 1/2 (0.442 mi.)	0	13

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 08/05/2013 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
HYTONE CLEANERS	2702 MOUNTAIN VIEW RD	ESE 1/2 - 1 (0.525 mi.)	88	131

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/05/2013 has revealed that there are 12 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SHINING STAR PRESCHOOL Status: No Further Action	3215, 3221 & 3227 SANTA	WNW 1/2 - 1 (0.502 mi.)	87	129
HYTONE CLEANERS Status: Active	2702 MOUNTAIN VIEW RD	ESE 1/2 - 1 (0.525 mi.)	88	131
SAN GABRIEL GROUNDWATER BASIN Status: Active	10-20 MI E OF L.A. ON H	N 1/2 - 1 (0.674 mi.)	90	138
EL MONTE GATEWAY SPECIFIC PLAN Status: Active	3615, 3535, 3675, 3527	NNW 1/2 - 1 (0.907 mi.)	95	196
HARLOW PLATING CO Status: Refer: Other Agency	12240 MAGNOLIA AVE	ESE 1/2 - 1 (0.963 mi.)	96	199
KOTOFF & CO. INC. Status: Refer: Other Agency Status: Inactive - Needs Evaluation	2620 DURFEE AVE	SE 1/2 - 1 (0.970 mi.)	97	204
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CENTRAL PLATING CO. Status: Refer: Other Agency	10930 SCHMIDT RD	SSW 1/4 - 1/2 (0.321 mi.)	P77	113
ZACKY FOODS CO Status: Refer: 1248 Local Agency	2044 N TYLER AVE	S 1/2 - 1 (0.674 mi.)	89	135
SOUTH EL MONTE (SAN GABRIEL VA Status: Active	COVERS ALL OF CITY OF S	SW 1/2 - 1 (0.693 mi.)	91	180
ABACUS GROUP, INC Status: Refer: Other Agency	1829 TYLER AVE	SSW 1/2 - 1 (0.849 mi.)	92	185
EEMUS MANUFACTURING CORP. Status: No Further Action	11111 RUSH STREET	S 1/2 - 1 (0.867 mi.)	93	188
AVALON DEBURRING CO, PETER RAJ Status: Refer: Other Agency	1934 COGSWELL RD	S 1/2 - 1 (0.902 mi.)	94	195

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 07/26/2013 has revealed that there are 8 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY WATER CO Status: Completed - Case Closed	11142 E GARVEY AVE	ENE 0 - 1/8 (0.050 mi.)	E28	71
TOSCO - 76 STATION #2657 Status: Completed - Case Closed	11225 GARVEY AVE E	ENE 0 - 1/8 (0.112 mi.)	H38	78
SHELL SERVICE STATION Status: Completed - Case Closed	11301 GARVEY AVE.	E 1/8 - 1/4 (0.194 mi.)	I49	94
D & S AUTO SALES Status: Completed - Case Closed	11519 GARVEY	E 1/4 - 1/2 (0.373 mi.)	81	118
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
U-HAUL COMPANY #713-049 Status: Completed - Case Closed	10704 GARVEY AVE E	W 1/4 - 1/2 (0.328 mi.)	Q80	116
RELIABLE LUMBER INC Status: Completed - Case Closed	10613 GARVEY AVE	W 1/4 - 1/2 (0.378 mi.)	Q83	120
RICHMORE DISTRIBUTING CO Status: Completed - Case Closed	10610 GARVEY	W 1/4 - 1/2 (0.387 mi.)	R84	123
ULTRAMAR STATION Status: Open - Inactive	10610 E GARVEY AVE	W 1/4 - 1/2 (0.387 mi.)	R85	125

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 07/26/2013 has revealed that there are 4 SLIC sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CAD-WELL PLATING CO. INC. Facility Status: Open - Site Assessment	10925 SCHMIDT RD.	SSW 1/4 - 1/2 (0.280 mi.)	O74	109
WILTON INK COMPANY Facility Status: Open - Site Assessment	2518 TYLER AVE. #1/2	S 1/4 - 1/2 (0.295 mi.)	75	111
JANSEN IRON WORKS, INC. Facility Status: Completed - Case Closed	10937 SCHMIDT RD	SSW 1/4 - 1/2 (0.318 mi.)	P76	111
JANSEN ORNAMENTAL SUPPLY CO. Facility Status: Open - Site Assessment	10926 SCHMIDT RD.	SSW 1/4 - 1/2 (0.321 mi.)	P78	115

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 07/26/2013 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY WATER CO	11142 GARVEY AVE	ENE 0 - 1/8 (0.050 mi.)	E27	71
TOSCO/UNOCAL #30451	11225 GARVEY AVE	E 1/8 - 1/4 (0.148 mi.)	I41	89
WIN SHELL	11301 GARVEY AVE	E 1/8 - 1/4 (0.194 mi.)	I50	96

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 06/17/2013 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>P AND T METALS INC</i>	<i>2213 N TYLER AVE</i>	<i>S 1/4 - 1/2 (0.499 mi.)</i>	<i>86</i>	<i>128</i>

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL GROUNDWATER BASIN</i>	<i>10-20 MI E OF L.A. ON H</i>	<i>N 1/2 - 1 (0.674 mi.)</i>	<i>90</i>	<i>138</i>

AOCONCERN: San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

A review of the AOCONCERN list, as provided by EDR, and dated 03/30/2009 has revealed that there is 1 AOCONCERN site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY		S 1/2 - 1 (0.513 mi.)	0	13

EXECUTIVE SUMMARY

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL VALLEY WATER CO</i>	<i>11142 GARVEY AVE</i>	<i>ENE 0 - 1/8 (0.049 mi.)</i>	<i>D26</i>	<i>70</i>
<i>UNOCAL CORP SS 2657</i>	<i>11225 E GARVEY AVE</i>	<i>ENE 0 - 1/8 (0.112 mi.)</i>	<i>H36</i>	<i>76</i>

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL VALLEY WATER CO</i>	<i>11142 E GARVEY AVE</i>	<i>ENE 0 - 1/8 (0.050 mi.)</i>	<i>E28</i>	<i>71</i>
<i>SERVICE STATION 2657</i>	<i>11225 GARVEY AVE</i>	<i>E 1/8 - 1/4 (0.148 mi.)</i>	<i>I40</i>	<i>88</i>
<i>GARVEY</i>	<i>11301 GARVEY AVE</i>	<i>E 1/8 - 1/4 (0.192 mi.)</i>	<i>I45</i>	<i>91</i>

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 5 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>SAN GABRIEL VALLEY WATER CO</i>	<i>11142 GARVEY AVE</i>	<i>ENE 0 - 1/8 (0.049 mi.)</i>	<i>D26</i>	<i>70</i>
<i>UNOCAL CORP SS 2657</i>	<i>11225 E GARVEY AVE</i>	<i>ENE 0 - 1/8 (0.112 mi.)</i>	<i>H36</i>	<i>76</i>
<i>SHELL SERV STA</i>	<i>11301 E GARVEY AVE</i>	<i>E 1/8 - 1/4 (0.194 mi.)</i>	<i>I48</i>	<i>92</i>
<i>FREEMAN CO</i>	<i>3023 PECK RD</i>	<i>ENE 1/8 - 1/4 (0.201 mi.)</i>	<i>M61</i>	<i>101</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>JIM PRICE</i>	<i>10968 GARVEY</i>	<i>WNW 0 - 1/8 (0.042 mi.)</i>	<i>C23</i>	<i>69</i>

Other Ascertainable Records

CONSENT: Major Legal settlements that establish responsibility and standards for cleanup at NPL (superfund) sites. Released periodically by U.S. District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, and dated 12/31/2011 has revealed that there is 1 CONSENT site within approximately 1 mile of the target property.

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY (AREA 1)	PECK RD & REAL	ESE 1/4 - 1/2 (0.442 mi.)	0	13

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 12/18/2012 has revealed that there is 1 ROD site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN GABRIEL VALLEY (AREA 1)	PECK RD & REAL	ESE 1/4 - 1/2 (0.442 mi.)	0	13

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 5 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
76 PRODUCTS STATION #2657 D & S AUTO SALES	11225 GARVEY 11519 GARVEY	ENE 0 - 1/8 (0.112 mi.) E 1/4 - 1/2 (0.373 mi.)	H37 81	78 118
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
U-HAUL COMPANY #713-049 RELIABLE LUMBER INC RICHMORE DISTRIBUTING CO	10704 GARVEY 10613 GARVEY 10610 GARVEY	W 1/4 - 1/2 (0.327 mi.) W 1/4 - 1/2 (0.378 mi.) W 1/4 - 1/2 (0.387 mi.)	Q79 Q82 R84	115 120 123

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RED & ART'S RADIATOR	11029 E. GARVEY AVE	NW 0 - 1/8 (0.012 mi.)	A18	66

WIP: Well Investigation Program case in the San Gabriel and San Fernando Valley area.

A review of the WIP list, as provided by EDR, and dated 07/03/2009 has revealed that there are 17 WIP sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
LEEEO TRANSMISSION Facility Status: Historical	2880 TYLER AVE	WNW 0 - 1/8 (0.007 mi.)	B10	61
SERV-U PRINTING Facility Status: Historical	11031 GARVEY AVE	NW 0 - 1/8 (0.011 mi.)	A15	64

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RED & ART'S RADIATORS Facility Status: Historical	11029 GARVEY AVE	NW 0 - 1/8 (0.012 mi.)	A19	66
WAYNE'S 4 WHEEL DRIVE REPAIR Facility Status: Historical	3019 CONSOL AVE	NE 0 - 1/8 (0.047 mi.)	D24	69
SAN GABRIEL VALLEY WATER CO Facility Status: Historical	11142 GARVEY AVE	ENE 0 - 1/8 (0.049 mi.)	D26	70
APEX SAW INCORPORATED	11139 GARVEY AVE	ENE 0 - 1/8 (0.087 mi.)	E32	75
EL MONTE TRAILER REPAIR INC. Facility Status: Historical	3014 PECK RD	ENE 1/8 - 1/4 (0.198 mi.)	M57	99
CHIKO'S	2728 PECK RD	ESE 1/8 - 1/4 (0.199 mi.)	L58	100
P AND H AUTOMOTIVE Facility Status: Historical	2711 PECK RD	ESE 1/8 - 1/4 (0.200 mi.)	N59	100
SNEILS TRAILER SALES Facility Status: Historical	11317 GARVEY AVE	E 1/8 - 1/4 (0.206 mi.)	M62	101
CARBURETOR CENTER Facility Status: Historical	2717 PECK RD	ESE 1/8 - 1/4 (0.222 mi.)	N69	106
Lower Elevation	Address	Direction / Distance	Map ID	Page
B.M. AUTO REPAIR Facility Status: Historical	2818 TYLER AVE	SW 0 - 1/8 (0.007 mi.)	B8	60
PAUL'S CARBURETOR & TUNE UP	10922 GARVEY AVE	W 0 - 1/8 (0.105 mi.)	G34	75
IDEAL MACHINING AND SUPPLY Facility Status: Historical	2630 NEVADA AVE	SSW 1/8 - 1/4 (0.189 mi.)	K43	89
M&M AUTO REPAIR Facility Status: Historical	2607 TYLER AVE	SSW 1/8 - 1/4 (0.209 mi.)	J65	102
B&T METAL CUTTING SERVICE, LTD Facility Status: Historical	10942 ELLIOTT AVE	SSW 1/8 - 1/4 (0.235 mi.)	K72	109
ARVAN INC. Facility Status: Historical	10930 ELLIOTT AVE	SSW 1/8 - 1/4 (0.246 mi.)	O73	109

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 26 EDR US

EXECUTIVE SUMMARY

Hist Auto Stat sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	11044 GARVEY AVE	NNW 0 - 1/8 (0.009 mi.)	A11	61
Not reported	11058 GARVEY AVE	NNE 0 - 1/8 (0.010 mi.)	A12	61
Not reported	11027 GARVEY AVE	NW 0 - 1/8 (0.011 mi.)	A13	63
Not reported	11029 GARVEY AVE	NW 0 - 1/8 (0.011 mi.)	A14	63
Not reported	11059 GARVEY AVE	NNE 0 - 1/8 (0.012 mi.)	A16	64
PRICE'S AUTO INSPECTION & REPA	TYLER AVE & GARVEY AVE	WNW 0 - 1/8 (0.014 mi.)	C20	67
Not reported	3019 CONSOL AVE	NE 0 - 1/8 (0.047 mi.)	D25	69
Not reported	2832 NEW DEAL AVE	E 0 - 1/8 (0.107 mi.)	H35	76
Not reported	11207 GARVEY AVE	E 1/8 - 1/4 (0.139 mi.)	H39	88
SHELL SERVICE STATION DEALERS	11301 GARVEY AVE	E 1/8 - 1/4 (0.194 mi.)	I51	96
Not reported	2809 PECK RD	ESE 1/8 - 1/4 (0.195 mi.)	L53	97
Not reported	2812 PECK RD	ESE 1/8 - 1/4 (0.196 mi.)	L55	99
Not reported	3014 PECK RD	ENE 1/8 - 1/4 (0.198 mi.)	M56	99
Not reported	3023 PECK RD	ENE 1/8 - 1/4 (0.201 mi.)	M60	100
Not reported	11318 GARVEY AVE	E 1/8 - 1/4 (0.207 mi.)	M63	101
Not reported	2717 PECK RD	ESE 1/8 - 1/4 (0.222 mi.)	N67	104
Not reported	2711 PECK RD	ESE 1/8 - 1/4 (0.224 mi.)	N71	108

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2818 TYLER AVE	SW 0 - 1/8 (0.007 mi.)	B9	60
Not reported	10968 GARVEY AVE	WNW 0 - 1/8 (0.042 mi.)	C22	68
Not reported	2723 TYLER AVE	SSW 0 - 1/8 (0.054 mi.)	F29	73
Not reported	2703 TYLER AVE	SSW 0 - 1/8 (0.067 mi.)	F30	73
Not reported	2714 TYLER AVE	SSW 0 - 1/8 (0.080 mi.)	F31	74
Not reported	10922 GARVEY AVE	W 0 - 1/8 (0.105 mi.)	G33	75
Not reported	2621 TYLER AVE	SSW 1/8 - 1/4 (0.183 mi.)	J42	89
Not reported	10830 GARVEY AVE	W 1/8 - 1/4 (0.194 mi.)	47	92
Not reported	2607 TYLER AVE	SSW 1/8 - 1/4 (0.209 mi.)	J64	102

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 2 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

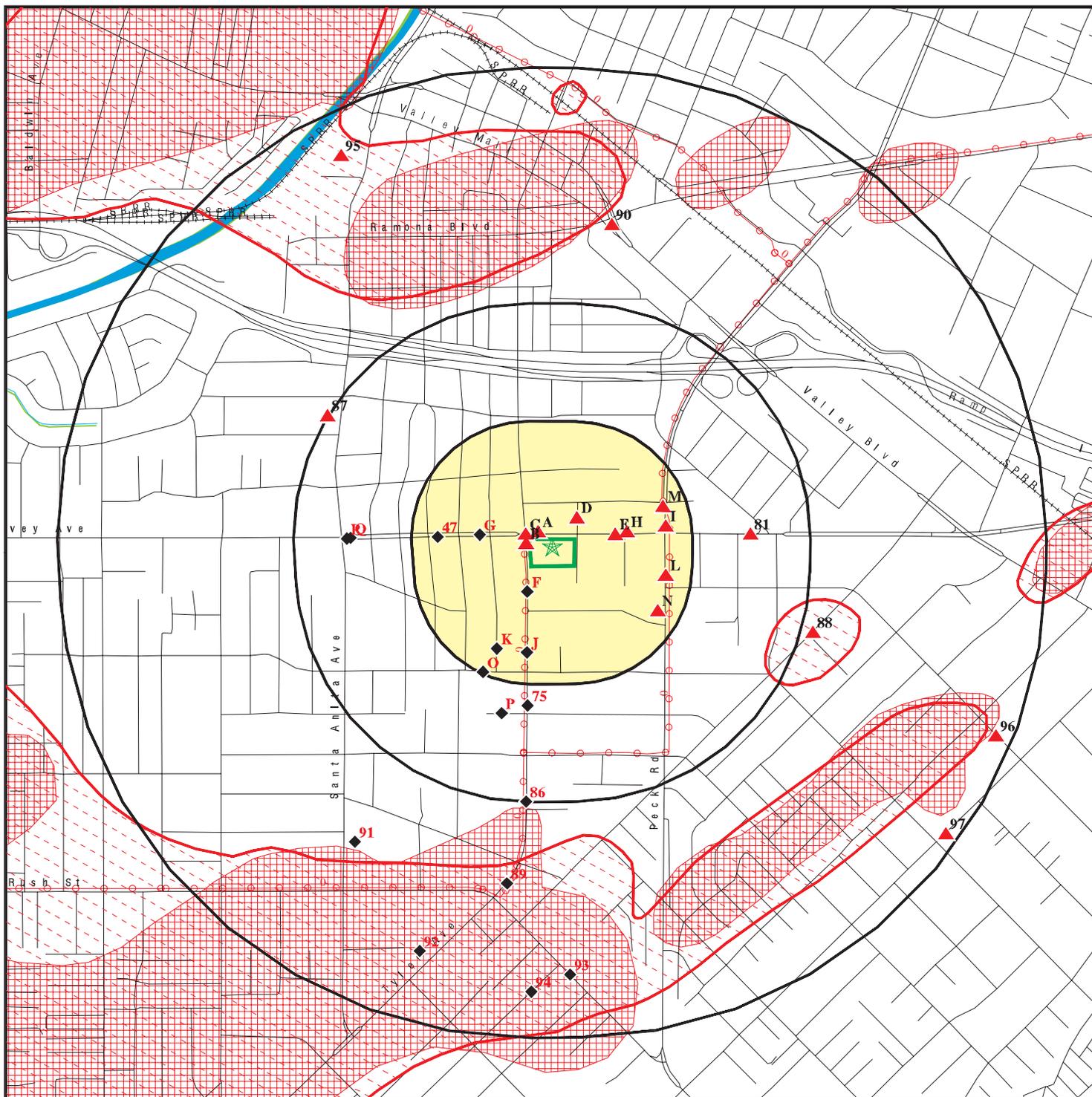
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2821 PECK RD	ESE 1/8 - 1/4 (0.193 mi.)	L46	92
Not reported	2822 PECK RD	ESE 1/8 - 1/4 (0.195 mi.)	L52	97

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 24 records.

<u>Site Name</u>	<u>Database(s)</u>
SAN GABRIEL GROUNDWATER B	HIST CORTESE
EMUHSD - SOUTH EL MONTE HIGH SCHOO	HAZNET
H K PECK EL MONTE PARTNERSHIP	HAZNET
EL MONTE TIRE SHOP	HAZNET
EL MONTE DOG & CAT HOSPITAL	HAZNET
CITY OF EL MONTE	HAZNET
EL MONTE AUTO GROUP LLC DBA NELSON	HAZNET
EL MONTE UNION HIGH SCHOOL DIST	HAZNET
EL MONTE UNION HIGH SCHOOL DIST	HAZNET
EL CAMINO AUTO CENTER	HAZNET
EL MONTE POST OFFICE	HAZNET
1X EL MONTE CITY SCHOOL DISTRICT	HAZNET
1X EL MONTE TOOL AND DYE FACILITY	HAZNET
SHELL SERVICE STATION - 136123	RCRA-SQG
CVS PHARMACY NO 9609	RCRA-LQG
EL SEGUNDO TERMINAL	ERNS
EL SEGUNDO TERMINAL	ERNS
EL MONTE DISPOSAL SERVICE	FINDS
EL MONTE DISPOSAL SERVICE	LA Co. Site Mitigation
AD GASS	WIP
GREATER EL MONTE DIALYSIS CTR	LOS ANGELES CO. HMS
EL TACO NAZO	LOS ANGELES CO. HMS
SLS & N, INC.	US MINES
WAYMIRE DRUM CO,INC.,S EL MONT	EMI

OVERVIEW MAP - 3721288.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

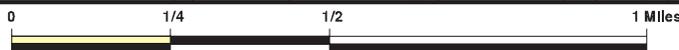
Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

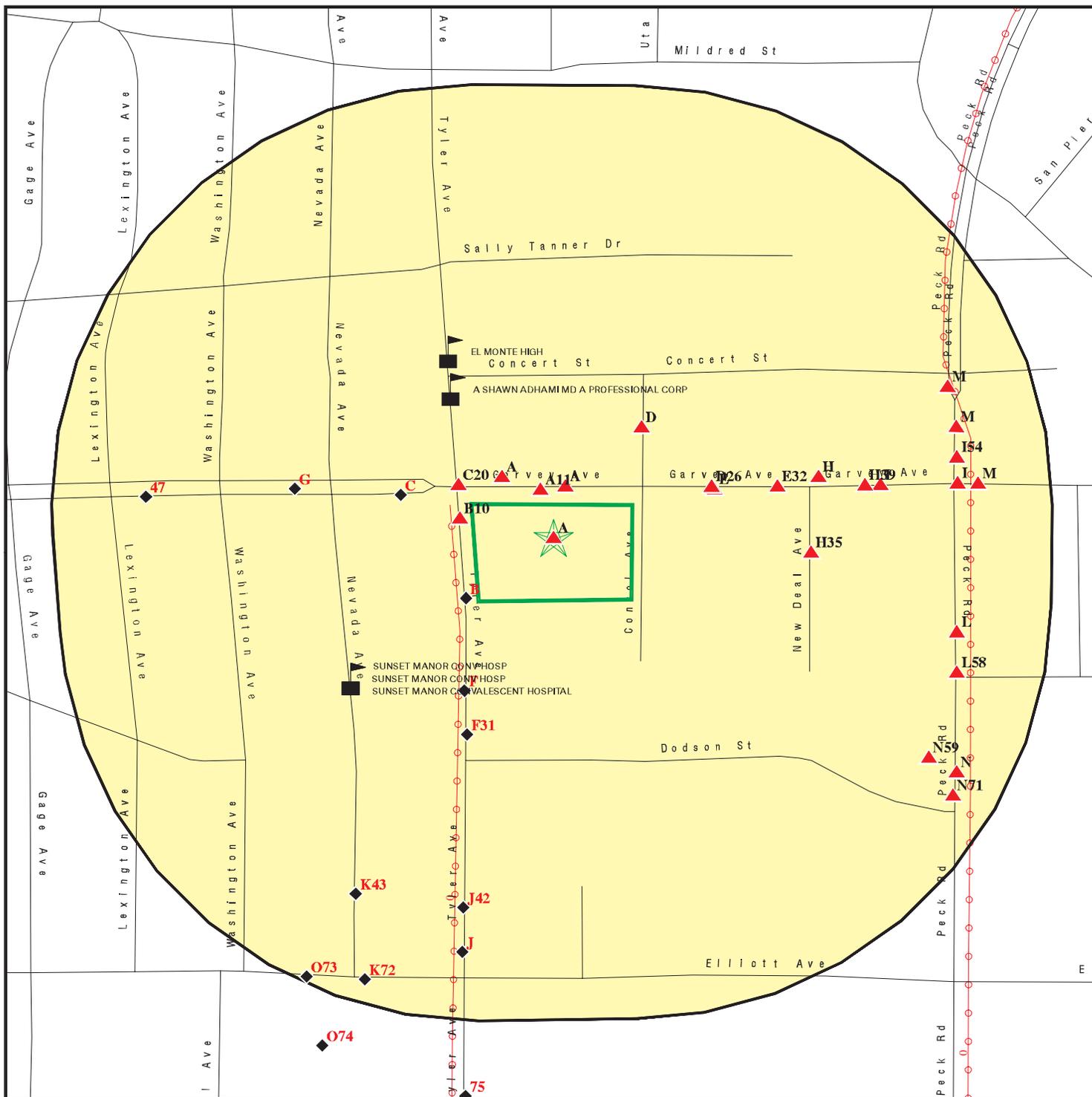


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

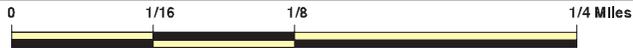
SITE NAME: El Monte
 ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue
 South El Monte CA 91733
 LAT/LONG: 34.0624 / 118.0347

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 3721288.2s
 DATE: September 09, 2013 3:33 pm

DETAIL MAP - 3721288.2s



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites



- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: El Monte
 ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue
 South El Monte CA 91733
 LAT/LONG: 34.0624 / 118.0347

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 3721288.2s
 DATE: September 09, 2013 3:35 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	1	0	NR	1
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS	0.500		0	0	1	NR	NR	1
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250	1	2	5	NR	NR	NR	8
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS	0.500		0	0	1	NR	NR	1
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	1	NR	1
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		0	0	1	11	NR	12
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500	1	2	1	5	NR	NR	9

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	4	NR	NR	4
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		1	2	NR	NR	NR	3
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	1	NR	NR	1
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
AOCONCERN	1.000		0	0	0	1	NR	1
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250		2	0	NR	NR	NR	2
HIST UST	0.250		1	2	NR	NR	NR	3
SWEEPS UST	0.250		3	2	NR	NR	NR	5
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	1	0	NR	1
ROD	1.000		0	0	1	0	NR	1
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500	1	1	0	4	NR	NR	6
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		1	0	0	0	NR	1
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250	1	8	9	NR	NR	NR	18
LOS ANGELES CO. HMS	TP	1	NR	NR	NR	NR	NR	1
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	1	NR	NR	NR	NR	NR	1
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH EPA	0.500		0	0	0	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250	2	14	12	NR	NR	NR	28
EDR US Hist Cleaners	0.250		0	2	NR	NR	NR	2

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1
Target 11022 GARVEY AVE
Property SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015154214
N/A

Site 1 of 17 in cluster A

Actual: EDR Historical Auto Stations:
271 ft. Name: SUS AMIGOS AUTO CTR
Year: 2004
Address: 11022 GARVEY AVE

A2 LEE CO TRANSMISSION EXCHANGE
Target 11012 E GARVEY AVE
Property EL MONTE, CA

RCRA-SQG 1000819757
FINDS CAD983657578

Site 2 of 17 in cluster A

Actual: RCRA-SQG:
271 ft. Date form received by agency: 01/25/1993
Facility name: LEE CO TRANSMISSION EXCHANGE
Facility address: 11012 E GARVEY AVE
EL MONTE, CA 91733
EPA ID: CAD983657578
Mailing address: E GARVEY AVE
EL MONTE, CA 91733
Contact: BOB ROGERS
Contact address: 11012 E GARVEY AVE
EL MONTE, CA 91733
Contact country: US
Contact telephone: (818) 443-0034
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: KWANG LEE
Owner/operator address: 11012 E GARVEY
EL MONTE, CA 91733
Owner/operator country: Not reported
Owner/operator telephone: (818) 443-0034
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEE CO TRANSMISSION EXCHANGE (Continued)

1000819757

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002891292

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**A3
Target
Property**

**11012 GARVEY AVE
SOUTH EL MONTE, CA 91733**

**EDR US Hist Auto Stat 1015153881
N/A**

Site 3 of 17 in cluster A

**Actual:
271 ft.**

EDR Historical Auto Stations:

Name: LEECO TRANSMISSION EXCHANGE
Year: 1999
Address: 11012 GARVEY AVE

Name: LEECO TRANSMISSION EXCHANGE
Year: 2001
Address: 11012 GARVEY AVE

Name: LEECO TRANSMISSION EXCHANGE
Year: 2002
Address: 11012 GARVEY AVE

Name: LEECO TRANSMISSION EXCHANGE
Year: 2005
Address: 11012 GARVEY AVE

Name: LEECO TRANSMISSION EXCHANGE
Year: 2006
Address: 11012 GARVEY AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A7
Target
Property

M & M CAR WORLD
11022 GARVEY
EL MONTE, CA 91733

HIST CORTESE
LUST

S101296135
N/A

Site 7 of 17 in cluster A

Actual:
271 ft.

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 062090-08

LUST:
Region: STATE
Global Id: T0603792932
Latitude: 34.0627717
Longitude: -118.0367358
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/20/1990
Lead Agency: LOS ANGELES COUNTY
Case Worker: JOA
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-15332
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:
Global Id: T0603792932
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603792932
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Regulatory Activities:
Global Id: T0603792932
Action Type: ENFORCEMENT
Date: 09/20/1990
Action: Closure/No Further Action Letter

Global Id: T0603792932
Action Type: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M & M CAR WORLD (Continued)

S101296135

Date: 01/01/1950
Action: Leak Reported

Global Id: T0603792932
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603792932
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:

Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: I-15332
Status: Leak being confirmed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603792932
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: TAYLOR AVE.
Enforcement Type: Not reported
Date Leak Discovered: 5/1/1990
Date Leak First Reported: 5/1/1990
Date Leak Record Entered: 6/20/1990
Date Confirmation Began: 5/1/1990
Date Leak Stopped: 5/1/1990
Date Case Last Changed on Database: 9/12/1990
Date the Case was Closed: Not reported
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: CARLSEN, DON
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 1290.5858927253232006258672633
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

M & M CAR WORLD (Continued)

S101296135

Significant Interim Remedial Action Taken: Not reported
 GW Qualifier: Not reported
 Soil Qualifier: Not reported
 Organization: Not reported
 Owner Contact: Not reported
 Responsible Party: HOWLAND ELECTRIC WHOLE SALE CO
 RP Address: 2806 TAYLER AVE., S. ELMONTE, 91773
 Program: LUST
 Lat/Long: 34.062937 / -1
 Local Agency Staff: Not reported
 Beneficial Use: Not reported
 Priority: Not reported
 Cleanup Fund Id: Not reported
 Suspended: Not reported
 Assigned Name: Not reported
 Summary: Not reported

**Areas of
 Concern
 South
 1/2-1
 2709 ft.**

**SAN GABRIEL VALLEY
 LOS ANGELES (County), CA**

**AOCONCERN CCA0000001
 N/A**

AOCONCERN:
 area where VOC contamination is at or above the MCL as designated by region 9 EPA office

**NPL
 Region
 ESE
 1/4-1/2
 2336 ft.**

**SAN GABRIEL VALLEY (AREA 1)
 PECK RD & REAL
 EL MONTE, CA 91733**

**NPL 1000114959
 CERCLIS CAD980677355
 US ENG CONTROLS
 CONSENT
 ROD
 FINDS
 PRP**

NPL:
 EPA ID: CAD980677355
 EPA Region: 09
 Federal: N
 Final Date: 1984-05-08 00:00:00

Category Details:
 NPL Status: Currently on the Final NPL
 Category Description: Depth To Aquifer-> 100 Feet
 Category Value: 135

 NPL Status: Currently on the Final NPL
 Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
 Category Value: 10

Site Details:
 Site Name: SAN GABRIEL VALLEY (AREA 1)
 Site Status: Final
 Site Zip: 91733

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Site City: EL MONTE
Site State: CA
Federal Site: No
Site County: LOS ANGELES
EPA Region: 09
Date Proposed: 09/08/83
Date Deleted: Not reported
Date Finalized: 05/08/84

Substance Details:

NPL Status: Currently on the Final NPL
Substance ID: Not reported
Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: U044
Substance: CHLOROFORM
CAS #: 67-66-3
Pathway: GROUND WATER PATHWAY
Scoring: 4

NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE
CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at listing September 1983): San Gabriel Valley Area 1) is a ground water plume that runs along the axis of the Rio Hondo Wash and the Salt Pit Wash in the San Gabriel ground water basin in El Monte, Los Angeles County, California. The plume also parallels the San Gabriel River to the east. It is approximately 4 miles long and 1.5 miles wide. Ground water is contaminated with trichloroethylene (TCE), perchloroethylene (PCE), and carbon tetrachloride (CTC) according to analyses by State agencies and local water companies. Many public wells in this area exceed the EPA Suggested No Adverse Response Levels (SNARL) for TCE and PCE. Approximately 200,000 people are affected. Cities and public water companies in the area have tested to ensure that their water supplies contain less than 5 parts per billion (ppb) of TCE and 4 ppb PCE, levels considered safe for human consumption. When alternative methods of reducing the TCE and PCE levels below such levels are not effective, wells are removed from service. Currently, three small mutual water companies have no alternate water supply and have advised their customers to use bottled water. Status June 1984): As a result of EPA's analysis of initial remedial measures, completed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

in December 1983, EPA will install water treatment systems to provide clean water to two of the three companies that have no alternate supply. The third company has already purchased a treatment system and will begin operation of the system soon. A supplemental sampling program of contaminated wells will begin soon to get a snapshot view of the degree of contamination. The State Department of Health Services and EPA are preparing to initiate a remedial investigation/feasibility study to determine the aerial and vertical extent of contamination and to develop alternatives for treatment and management of the problem. EPA continues its investigation to identify sources of contamination. This site, along with the three other San Gabriel Valley sites, was added to the NPL in May 1984 because it involves a serious problem that required taking immediate remedial action.

Site Status Details:

NPL Status: Final
Proposed Date: 09/08/1983
Final Date: 05/08/1984
Deleted Date: Not reported

Narratives Details:

NPL Name: SAN GABRIEL VALLEY (AREA 1)
City: EL MONTE
State: CA

CERCLIS:

Site ID: 0901951
EPA ID: CAD980677355
Facility County: LOS ANGELES
Short Name: SAN GABRIEL VALLEY (AREA
Congressional District: 28,31
IFMS ID: 0927
SMSA Number: 4480
USGC Hydro Unit: 18070105
Federal Facility: Not a Federal Facility
DMNSN Number: 6.00000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Groundwater
Site Settings Code: SU
NPL Status: Currently on the Final NPL
DMNSN Unit Code: SQMI
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Not reported
Non NPL Status Date: / /
Site Fips Code: 06037
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

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CERCLIS Site Contact Name(s):

Contact ID:	9000154.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	On-Scene Coordinator (OSC)
Contact Email:	Not reported
Contact ID:	9270378.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	9270730.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	9270412.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	9271184.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13002904.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Remedial Project Manager (RPM)
Contact Email:	Not reported
Contact ID:	13003854.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13004003.00000
Contact Name:	Not reported
Contact Tel:	Not reported
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13004162.00000
Contact Name:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

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Contact Tel: Not reported
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):

Alias ID: 101
Alias Name: SAN GABRIEL VALLEY (AREA 1)
Alias Address: PECK RD & REAL
EL MONTE, CA 91733

Alias Comments: Not reported

Site Description: The San Gabriel Valley has been the subject of environmental investigation since 1979 when groundwater contaminated with volatile organic compounds (VOCs) was first identified. Subsequent investigation by EPA and others revealed the extent of groundwater contamination in the aquifers of the San Gabriel Valley (the San Gabriel Valley groundwater system is known as the San Gabriel Basin). In May 1984, four broad areas of contamination within the basin were listed as San Gabriel Areas 1 through 4 on EPA's National Priorities List (NPL). The WNOU is officially part of the San Gabriel Valley Area 1 Superfund Site. EPA subsequently divided the basin into eight operable units (OUs) to provide a means of planning remedial activities in the basin. The term "Operable Unit" (OU) is used to define a discrete action that is an incremental step toward a comprehensive site remedy. Operable units may address certain geographic areas, specific site problems, initial phases of a remedy, or a set of actions over time. The WNOU is one of eight OUs within the San Gabriel Valley Superfund Site. The other OUs identified by EPA are Alhambra, Baldwin Park, El Monte, Puente Valley, Richwood, South El Monte and Suburban. The groundwater contamination in the San Gabriel Basin results from the historic use and improper handling and disposal of tetrachloroethene (PCE), trichloroethene (TCE), and other chemicals. These chemicals were used in large quantities at industrial facilities across much of the San Gabriel Valley as early as the 1940s, and by hundreds of businesses in the 1960s, 1970s and 1980s for degreasing, metal cleaning, and other purposes. The chemicals were probably released to the ground by a combination of disposal, careless handling, leaking tanks and pipes, and other means. EPA conducted Remedial Investigation/Feasibility Study (RI/FS) activities in the WNOU beginning in the late 1980s. The RI/FS approach is a methodology that the Superfund program has established for characterizing the nature and extent of risks posed by uncontrolled hazardous waste sites to evaluate potential remedial options. The RI serves as a mechanism to collect data for site characterization. The FS serves as the mechanism for development, screening, and evaluation of potential remedial alternatives. An Operable Unit Feasibility Study (OUFS) Report for the WNOU was completed and issued for public review in September 1992 (EPA, 1992b). At that time, contaminant concentrations were low and posed a minimal threat to human health and groundwater supplies in the Central Basin. In March 1993, EPA issued a ROD that called for installation of wells and additional sampling to supplement the existing groundwater monitoring program. For several years, contaminant concentrations were relatively low throughout Whittier Narrows and groundwater resources in the Central Basin were not threatened. However, in the last few years, contaminated groundwater from upgradient areas has been migrating into the western side of Whittier Narrows causing significant increases in contaminant concentrations. The increases in contaminant concentrations suggest an imminent threat to groundwater resources in the Central Basin. This threat prompted EPA to initiate additional data collection activities and evaluation of active remedial actions. In 1997, EPA initiated additional groundwater monitoring and further characterization of the hydrogeology in western Whittier Narrows. Since then, nineteen new monitoring wells were installed. In addition, large-scale aquifer tests were

MAP FINDINGS

SAN GABRIEL VALLEY (AREA 1) (Continued)

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conducted using City of Whittier, Pico Rivera, and Texaco production wells (EPA, 1997b). Results of EPA's recent investigations in Whittier Narrows are presented in the Site Characterization Report for Whittier Narrows (EPA, 1998a). An FS Addendum was performed for the WNOU in 1998. The FS identified remedial action objectives, assembled remedial alternatives, and provided an evaluation of the alternatives with nine evaluation criteria that EPA established. EPA issued the Final FS Addendum Report (EPA, 1998b) and a Proposed Plan in October 1998. Groundwater contamination in the San Gabriel Valley was discovered in 1979. In 1984, the EPA added four portions of the San Gabriel Valley to the national Superfund list. The El Monte OU is officially part of the San Gabriel Valley Area 1 Superfund site. Investigations by the EPA and others revealed the large extent of groundwater contamination in the El Monte OU and the San Gabriel Valley. During the past 20 years, numerous water supply wells throughout the San Gabriel Valley have been found to be contaminated with chlorinated solvents and other VOCs. In response to the contamination, water companies have shut down contaminated wells, installed new treatment facilities, and taken other steps to ensure that they can continue to supply water meeting State and Federal drinking water standards for VOCs. In 1998, the Northwest El Monte Community Task Force ("NEMCTF"), a group of fifteen parties considered potentially responsible for contamination of groundwater (Potentially Responsible Parties or "PRPs") in the El Monte area, completed the remedial investigation/feasibility study ("RI/FS") for the El Monte OU of the San Gabriel Valley Superfund sites. The remedial investigation determined that PCE, TCE, and other volatile organic compounds were contaminating the shallow and deep groundwater aquifers in a ten-square-mile area of the San Gabriel Valley around El Monte. Businesses in El Monte and surrounding areas had used these chemicals for degreasing, metal cleaning, and other purposes, and had probably released them to the ground through a combination of on-site disposal, careless handling, leaking pipes, and other means. The study found that the uppermost, or shallow, aquifer includes most of the known sources of the groundwater contamination. VOC contaminant concentrations in portions of the shallow aquifer are hundreds of times drinking water standards. In the deep aquifer, VOC contaminant concentrations are lower but still exceed drinking water standards. The NEMCTF has since continued to install and sample monitoring, extraction, and compliance wells, model the groundwater aquifers, and evaluate options for discharging treated groundwater, all in order to prepare for the implementation of cleanup work. The San Gabriel Valley encompasses a basin that is approximately 170 square miles. Groundwater in the San Gabriel Basin is the primary drinking water source for more than one million people. Regional groundwater contamination by volatile organic compounds (VOCs) prompted the Environmental Protection Agency (EPA) to place the San Gabriel Valley on the National Priorities List (NPL) in 1984. EPA has identified several Operable Units (OUs) at the San Gabriel Valley Superfund Site. These are the El Monte OU, Baldwin Park OU, Alhambra OU, Puente Valley OU, Richwood OU, South El Monte OU, Suburban OU, and Whittier Narrows OU. El Monte Operable Unit (OU1): The El Monte OU is part of the San Gabriel Valley Superfund Site Area 1, located in eastern Los Angeles County, California. The OU covers approximately 10 square miles in the south central portion of the San Gabriel Basin. The El Monte OU is generally bounded by the San Bernardino Freeway on the south, Rosemead Boulevard on the west, and Santa Anita Avenue and the Rio Hondo on the east. The El Monte OU is highly developed and lies within the cities of El Monte, Rosemead, and Temple City. Most of the area is zoned for residential use and is likely to remain residential. Industrial activity in the El Monte OU is primarily concentrated in the central portion of the OU. EPA began its enforcement efforts in the El Monte OU in 1985 by searching historical federal, state, and local records for evidence of chemical usage, handling, and disposal

MAP FINDINGS

SAN GABRIEL VALLEY (AREA 1) (Continued)

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in the El Monte OU area. At approximately the same time, the Regional Water Quality Control Board (RWQCB) initiated its Well Investigation Program (WIP) to identify sources of groundwater contamination. In 1989, EPA entered into a cooperative agreement with the RWQCB to expand the WIP program, to assist EPA in determining the nature and extent of the sources of groundwater contamination in the San Gabriel Valley, and to identify responsible parties.

From 1990 to 1994, EPA sent General Notice of Liability letters to approximately 40 entities in and around the El Monte OU area. In October 1994, EPA sent Special Notice letter to potentially responsible parties (PRPs), requesting that these parties present a good faith offer to perform the remedial investigation/feasibility study (RI/FS) for the El Monte OU. Fifteen of these PRPs formed the Northwest El Monte Community Task Force (NEMCTF) and in March 1995 entered into an Administrative Order on Consent (AOC) with EPA to conduct the RI/FS. In May 1995, EPA issued a Unilateral Administrative Order (UAO) to one PRP, Crown City Plating, that failed to present a good faith offer. Crown City Plating completed the activities that the UAO required in 1997, and the NEMCTF completed the RI/FS in July 1998. An Interim Record of Decision (ROD) addressing the El Monte OU was completed in June 1999. This ROD calls for pumping the VOC-contaminated groundwater from two aquifers beneath the El Monte OU and treating it to remove the contaminants. More specifically, the plan calls for the construction and operation of groundwater extraction wells, treatment facilities, and conveyance facilities capable of pumping and treating approximately 1,325 and 330 gallons per minute of VOC-contaminated groundwater from the deep and shallow aquifers, respectively. The plan will require construction of new wells and treatment facilities for the shallow aquifer. For the deep aquifer, the plan allows for the use of existing water supply wells, treatment systems, and pipelines if possible, and the construction of new facilities where needed. Final decisions on extraction rates and locations will be made during the remedial design phase of the project. After the discovery in 1997 and 1998 of perchlorate, NDMA, and 1, 4-dioxane in the Baldwin Park area, and hexavalent chromium in the San Fernando Valley approximately 10 miles northeast of the San Gabriel Valley, the Los Angeles Regional Water Quality Control Board requested that facilities in several areas of the San Gabriel Valley, including the El Monte OU, sample their groundwater monitoring wells for these "emergent chemicals." In 2000 - 2001, the NEMCTF and its members sampled selected shallow groundwater monitoring wells within areas of VOC contamination as part of the pre-design activities in the El Monte OU and tested for emergent chemicals. Perchlorate, hexavalent chromium, NDMA, and 1, 4-dioxane were detected in shallow groundwater in the El Monte OU. Maximum concentrations of perchlorate and NDMA exceed the State drinking water action levels of 4 ppb and 0.010 ppb, respectively. The maximum concentration of 1,4-dioxane is more than 20 times the State drinking water action level of 3 ppb. The maximum concentration of hexavalent chromium does not pose a risk to human health but exceeds the Federal standard for protection of freshwater aquatic life in inland surface waters and is of concern if treated water is discharged to surface water. Sampling of groundwater in the deep aquifer of the El Monte OU shows that perchlorate is the only one of the four constituents that has exceeded the State drinking water action level. Perchlorate was detected at a concentration of 5.9 ppb in a well that was subsequently destroyed. Perchlorate was not detected in wells downgradient of the destroyed well and thus additional treatment processes for groundwater extracted from the deep aquifer in the El Monte OU are not anticipated to be necessary at this time, but may be required in the future. EPA amended the Record of Decision to address these additional contaminants by issuing an Explanation of Significant Differences (ESD) in August 2002. After the discovery in 1997 and 1998 of perchlorate, NDMA, and 1,4-dioxane in the Baldwin Park area, and hexavalent chromium in the San

SAN GABRIEL VALLEY (AREA 1) (Continued)

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Fernando Valley approximately 10 miles northeast of the San Gabriel Valley, the Los Angeles Regional Water Quality Control Board requested that facilities in several areas of the San Gabriel Valley, including the El Monte OU, sample their groundwater monitoring wells for these "emergent chemicals." In 2000 - 2001, the NEMCTF and its members sampled selected shallow groundwater monitoring wells within areas of VOC contamination as part of the pre-design activities in the El Monte OU and tested for emergent chemicals. Perchlorate, hexavalent chromium, NDMA, and 1,4-dioxane were detected in shallow groundwater in the El Monte OU. Maximum concentrations of perchlorate and NDMA exceed the State drinking water action levels of 4 ppb and 0.010 ppb, respectively. The maximum concentration of 1,4-dioxane is more than 20 times the State drinking water action level of 3 ppb. The maximum concentration of hexavalent chromium does not pose a risk to human health but exceeds the Federal standard for protection of freshwater aquatic life in inland surface waters and is of concern if treated water is discharged to surface water. Sampling of groundwater in the deep aquifer of the El Monte OU shows that perchlorate is the only one of the four constituents that has exceeded the State drinking water action level. Perchlorate was detected at a concentration of 5.9 ppb in a well that was subsequently destroyed. Perchlorate was not detected in wells downgradient of the destroyed well and thus additional treatment processes for groundwater extracted from the deep aquifer in the El Monte OU are not anticipated to be necessary at this time, but may be required in the future. In July 2001, EPA sent Special Notice letters to 27 PRPs to begin formal EPA-PRP negotiations to obtain a binding commitment from the PRPs to carry out the El Monte cleanup plan for the design, construction, and operation of the groundwater extraction, treatment, and discharge facilities specified in the El Monte OU ROD. EPA is currently negotiating this commitment, called a Consent Decree, including provisions for treatment of emergent chemicals, if warranted, with a group of El Monte OU PRPs. Because the emergent chemicals were discovered after EPA issued the El Monte OU ROD, EPA is now modifying the cleanup decision to address the emergent chemicals. The emergent chemicals may require treatment, and if so, one or more of the treatment technologies described below will be required. To the extent treatment is required for the emergent chemicals, the groundwater has to be treated to achieve the treatment levels. An Explanation of Significant Differences (ESD) was completed August 22, 2002 in order to modify the selected remedy of the ROD to include these additional treatment technologies. Operable Unit 03: Currently, there are three mutual water companies - Richwood, Rurban Homes, and Hemlock - that have no alternative water supply and have been providing their customers with water that is contaminated with PCE at concentrations above the DOHS Action Level. At present, no other organics have been found at levels above the DOHS action limits in the mutuals' wells. Mutual water companies are cooperatively owned water companies; in other words, the customers own shares in the company. Of all the water purveyors in the basin, only the three mutual water companies mentioned above (located in San Gabriel Area 1) are currently unable to supply water that has contamination levels below the EPA SNARL levels, due to lack of any alternative water supply. Consequently, EPA and the State have identified a need for initial remedial measures (IRM) to assist these water purveyors in mitigating their water contamination problem. Richwood Mutual Water Company serves approximately 204 households with water from two wells. PCE was first detected in October 1980, and since that time has been found in concentrations ranging from 12 to 92 ppb, greatly exceeding the SNARL level of 4 ppb. The most current data show PCE levels of 62 ppb for Well No. 1 (6/1/83) and 92 ppb for Well No. 2 (5/17/83). In addition to a PCE contamination problem, Richwood suffers from potential bacteriological problems and a severely deteriorated distribution system. Well No. 2 was temporarily taken out of service in May 1983, so that bacteriological problems could be eliminated by

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chlorination. Hemlock Mutual Water Company owns two wells and provides water to approximately 199 households. PCE was first detected in May 1982. The South Well was taken out of service in 1982, on the order of the Los Angeles County Department of Health Services (LACDHS) when a PCE level of 184 ppb was detected. The latest test results showed PCE levels of 50 ppb in the South Well (12/14/82) and 38 ppb in the North Well (4/12/83). Hemlock has considered using an activated carbon treatment system to lower PCE levels. Pilot tests of the system were performed from February through April 1983; the tests showed that PCE will be removed. Hemlock has bought the system from a vendor, but it is not yet in operation. At EPA's Region IX's request, the design of the Hemlock carbon filter system reviewed; the analysis concluded that the system was under-designed and did not include a margin of safety normally included in these systems. Rurban Homes Mutual Water Company serves approximately 290 households with water from two wells. PCE was detected first in October 1980. The latest sampling data (5/17/83) showed PCE concentrations of 1.7 and 3.7 ppb for Wells No. 1 and 2, respectively. In the past, however, PCE concentrations have ranged as high as 16 ppb for Well No. 1 and 54 ppb for Well No. 2. This latest sampling is the first time the PCE concentration in both wells has been lower than 4 ppb since contamination was detected. However, results of sampling over time have shown significant fluctuations that do not indicate either an increasing or decreasing trend and the average concentration of PCE has remained above the DOHS action level. Therefore, the recent sampling cannot be considered sufficient evidence that the PCE SNARL level has been and will continue to be; met in the near future. Because these two contaminated wells are Rurban's only water supply, EPA and the State have determined that a solution to Rurban's contamination problem should also be included in initial remedial measures for San Gabriel Area 1. At the request of EPA Region IX, the Field Inspection Team (FIT) prepared a list of potentially responsible parties (PRP's) in the San Gabriel basin, for use in preparing RCRA Section 3007/CERCLA Section 104 letters. This list was based on the results of the 1980 RWQCB investigation, cited above, which identified several industries as warranting further investigation, and a review of records and the history of development in the San Gabriel basin. EPA Region IX sent 16 section 3007/104 letters to PRP's on August 19, 1983, based on an initial list provided by FIT. This initial list was based primarily on the 1980 RWQCB study which focused on San Gabriel Area 2. Consequently, only two of these initial 16 PRP's are located in the San Gabriel Area 1. After FIT provided its final list of PRP's, Region IX sent 72 additional section 3007/104 letters to PRP's in the San Gabriel basin on January 12, 1984; 31 of these PRP's were located in San Gabriel Area 1. Since no responsible parties have been identified yet in San Gabriel Area 1, it is recommended that the Trust Fund be used to finance initial remedial measures at the San Gabriel Area 1 site. Immediate action must be taken to provide an uncontaminated water source for residents of El Monte served by the three mutual water companies. If parties responsible for contamination of the mutual water companies' wells are identified through the source investigation, a cost recovery action can be taken to recover Trust Fund monies used for the implementation of initial remedial measures in San Gabriel Area 1. A ROD addressing Operable Unit 03 was completed in May of 1984. OU5: Groundwater contamination in the San Gabriel Valley was discovered in 1979. In 1984, the EPA added four portions of the San Gabriel Valley to the national Superfund list. The South El Monte Operable Unit (OU) is officially part of the San Gabriel Valley Area 1 Superfund site. Investigations by the EPA and others revealed the large extent of groundwater contamination in the South El Monte OU and the San Gabriel Valley. During the past 20 years, numerous water supply wells throughout the San Gabriel Valley have been found to be contaminated with chlorinated solvents and other volatile organic compounds (VOCs). In response to the contamination, water companies have shut

SAN GABRIEL VALLEY (AREA 1) (Continued)

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down contaminated wells, installed new treatment facilities, and taken other steps to ensure that they can continue to supply clean drinking water to the public. The remedial investigation/feasibility study (RI/FS) for the South El Monte OU of the San Gabriel Valley Superfund sites was funded by a group of potentially responsible parties (PRPs) for contamination of groundwater in the South El Monte area and was completed in 1999. The remedial investigation determined that tetrachloroethene (PCE), trichloroethene (TCE), and other VOCs were contaminating the shallow and intermediate depth groundwater aquifers in a fifteen-square-mile area of the San Gabriel Valley around South El Monte. Businesses in South El Monte and surrounding areas had used these chemicals for degreasing, metal cleaning, and other purposes, and had probably released them to the ground through a combination of on-site disposal, careless handling, leaking pipes, and other means. The study found that the upper most, or shallow aquifer includes most of the known sources of the groundwater contamination. VOC contaminant concentrations in portions of the shallow aquifer are hundreds of times the drinking water standards. In the intermediate aquifer, VOC contaminant concentrations are generally lower, but still exceed drinking water standards. On September 29, 2000, the EPA adopted a cleanup plan for the South El Monte OU known as the South El Monte Operable Unit Interim Record of Decision (ROD). The plan addresses the contamination described in the RI/FS. The goals of the 2000 cleanup plan are to prevent exposure of the public to VOC-contaminated groundwater, limit the movement of VOC-contaminated groundwater into clean or less contaminated areas and depths of the intermediate zone, reduce the impact of continued contaminant migration on downgradient water supply wells in the intermediate zone, and protect future uses of uncontaminated areas. In the South El Monte OU, nearly all of the shallow zone groundwater and a portion of the intermediate zone groundwater migrate south towards Whittier Narrows. As part of a separate cleanup plan (identified in the Whittier Narrows OU Interim Record of Decision Amendment, issued by EPA in November 1999), EPA has already constructed a groundwater remedy in the Whittier Narrows OU that is anticipated to capture any shallow zone and intermediate zone VOC contamination in the South El Monte OU that is migrating to the south. This leaves only the portion of the intermediate-zone VOC contamination in the northwest half of the South El Monte OU that migrates towards the west to be addressed in the South El Monte OU cleanup plan. The South El Monte OU (SEMOU) 2000 cleanup plan calls for pumping the VOC-contaminated groundwater from a portion of the intermediate aquifer beneath the South El Monte OU and treating it to remove the contaminants. More specifically, the plan allows for the use of existing water supply wells, treatment systems, and pipelines if possible, and the construction of new facilities where needed, to pump and treat approximately 10,000 gallons per minute (gpm) of VOC-contaminated groundwater from the intermediate aquifer. Final decisions on extraction rates and locations will be made during the remedial design phase of the project. The 2000 Interim ROD selected a remedy that "is an interim action and is focused on controlling the migration of contamination". The EPA has installed and sampled monitoring wells and modeled the groundwater aquifers to prepare for the implementation of cleanup work for the intermediate aquifer. Water purveyors' facilities in the SEMOU have been proposed as part of the SEMOU VOC containment remedy. These facilities are: 1) San Gabriel Valley Water Company's Plant 8 production Wells b, c, and d and their associated VOC treatment facility, 2) City of Monterey Park (MP) Wells 12 and 15 and their associated VOC treatment facility, 3) MP Well 5 and its associated VOC treatment facility, and 4) Southern California Water Company (SCWC) San Gabriel Wells 1 and 2 and their associated VOC treatment facility. In addition to VOC treatment, perchlorate treatment may be required at the two MP facilities and the SCWC facility listed above. After the discovery in 1997 and 1998 of perchlorate, n-nitrosodimethylamine (NDMA),

SAN GABRIEL VALLEY (AREA 1) (Continued)

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and 1,4-dioxane in the Baldwin Park area of the San Gabriel Valley, the Los Angeles Regional Water Quality Control Board requested that facilities in several areas of the San Gabriel Valley sample their groundwater monitoring wells for these newly-discovered "emergent chemicals." During the same time period, widespread testing for perchlorate was conducted in the San Gabriel Valley by water suppliers. EPA also began testing for the emergent chemicals in several areas of the San Gabriel Valley, including the South El Monte OU. Perchlorate and 1,4-dioxane were detected in the groundwater in the South El Monte OU. 1,4-dioxane was detected at concentrations more than 20 times the State drinking water advisory level of 3 ppb in the shallow aquifer in the northern and southern portions of the South El Monte OU. Concentrations of 1,4-dioxane detected in the intermediate aquifer were generally less than the State drinking water advisory level. Perchlorate detected in the groundwater in the South El Monte OU did not exceed the State drinking water advisory level of 18 micrograms per liter (ug/l) established in 1997. In early 2002 and 2004, the State issued new drinking water advisory levels for perchlorate of 4 ppb and 6 ppb respectively. Subsequently, perchlorate was detected at concentrations above the State drinking water advisory level of 6 ppb during testing of groundwater in the intermediate aquifer of the South El Monte OU. Some water purveyors' wells were impacted by perchlorate contamination, and consequently, intermediate zone groundwater pumped from these wells has to be treated for perchlorate. In some cases where the perchlorate concentration in water purveyor wells is just slightly above the State drinking water advisory level, water purveyors may be able to blend perchlorate contaminated water with clean water to meet the State drinking water advisory level. Concentrations of perchlorate in the shallow aquifer were generally less than the State drinking water advisory level and shallow zone perchlorate treatment is not needed at this time. If EPA determines containment and treatment for perchlorate in the shallow zone is necessary, this decision will be addressed in a subsequent decision document. The need for containment of 1,4-dioxane detected above State drinking water advisory level in the shallow aquifer is currently being evaluated by EPA using groundwater modeling. If EPA determines containment for 1,4-dioxane in the shallow zone is necessary, this decision will be documented in a subsequent decision document. In the intermediate aquifer, concentrations of 1,4-dioxane in the South El Monte OU are generally less than the State drinking water advisory level. Treatment for 1,4-dioxane in the intermediate aquifer is not included as part of the remedy at this time. NDMA and hexavalent chromium have also been detected in groundwater in the South El Monte OU, but do not exceed Federal or State water quality regulatory levels. Thus, additional treatment processes for NDMA and hexavalent chromium are not needed at this time. In March 2002, EPA sent Special Notice letters to 67 PRPs to begin formal EPA-PRP negotiations to obtain a binding commitment from the PRPs to carry out the South El Monte OU cleanup plan for the design, construction, and operation of the groundwater extraction, treatment, and discharge facilities specified in the South El Monte OU Interim ROD. EPA is currently negotiating this commitment, called a Consent Decree, with a group of South El Monte OU PRPs. Because perchlorate at concentrations above the State drinking water advisory level was discovered after EPA issued the South El Monte OU Interim ROD, EPA is now modifying the cleanup decision to address the need to potentially treat perchlorate at those portions of the Interim ROD remedy that are operating in the intermediate zone. In some cases, where the perchlorate concentration is close to the State drinking water advisory level, there may be an opportunity to blend perchlorate contaminated water with clean water to meet the State drinking water advisory level, under the purview of the California Department of Health Services. An Explanation of Significant Differences (ESD) addressing Operable Unit 5 (South El Monte) at the San Gabriel Valley - Area 1 Superfund Site was completed in November 2005.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

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CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 04/01/80
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ISSUE REQUEST LETTERS (104E)
Date Started: / /
Date Completed: 08/01/83
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: SITE INSPECTION
Date Started: 03/01/83
Date Completed: 09/01/83
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: SITE INSPECTION
Date Started: 03/01/83
Date Completed: 09/01/83
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/01/83
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 09/01/83
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 09/08/83
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: ISSUE REQUEST LETTERS (104E)
Date Started: / /
Date Completed: 01/01/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 01/12/84

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 05/08/84
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 06/13/83
Date Completed: 05/11/84
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 05/11/84
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: EPA Fund-Financed
Planning Status: Project Suspended
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: RECORD OF DECISION AMENDMENT
Date Started: / /
Date Completed: 09/30/87
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 020
Action: Notice Letters Issued
Date Started: / /
Date Completed: 11/30/87
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL DESIGN
Date Started: 09/30/85
Date Completed: 02/04/88
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 04/01/87
Date Completed: 09/29/88
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/29/88
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Project Suspended
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Code: 003
Action: ISSUE REQUEST LETTERS (104E)
Date Started: / /
Date Completed: 12/30/88
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: Notice Letters Issued
Date Started: / /
Date Completed: 03/15/89
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL ACTION
Date Started: 05/25/88
Date Completed: 03/29/89
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 011
Action: Notice Letters Issued
Date Started: / /
Date Completed: 05/07/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 012
Action: Notice Letters Issued
Date Started: / /

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Date Completed: 06/07/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: ISSUE REQUEST LETTERS (104E)
Date Started: / /
Date Completed: 06/08/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 014
Action: Notice Letters Issued
Date Started: / /
Date Completed: 07/09/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMOVAL ASSESSMENT
Date Started: 09/19/90
Date Completed: 09/19/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 017
Action: Notice Letters Issued
Date Started: / /
Date Completed: 09/20/90
Priority Level: Not reported
Operable Unit: EL MONTE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/30/85
Date Completed: 09/30/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: State, Fund Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 019
Action: Notice Letters Issued
Date Started: / /
Date Completed: 10/12/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 021
Action: Notice Letters Issued
Date Started: / /
Date Completed: 12/05/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 022
Action: Notice Letters Issued
Date Started: / /
Date Completed: 12/06/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 023
Action: Notice Letters Issued
Date Started: / /
Date Completed: 12/07/90
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: Notice Letters Issued
Date Started: / /
Date Completed: 02/07/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: Notice Letters Issued
Date Started: / /
Date Completed: 03/06/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007
Action: Notice Letters Issued
Date Started: / /
Date Completed: 03/15/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

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SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Code: 002
Action: REMEDIAL DESIGN
Date Started: 09/14/88
Date Completed: 06/13/91
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: ADMINISTRATIVE RECORDS
Date Started: 06/25/91
Date Completed: 06/25/91
Priority Level: Admin Record Compiled for a Remedial Event
Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 013
Action: Notice Letters Issued
Date Started: / /
Date Completed: 07/03/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 015
Action: Notice Letters Issued
Date Started: / /
Date Completed: 07/09/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: REMEDIAL DESIGN
Date Started: 09/14/88
Date Completed: 07/18/91
Priority Level: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 018
Action: Notice Letters Issued
Date Started: / /
Date Completed: 09/26/91
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 10/29/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: REMOVAL ASSESSMENT
Date Started: 12/27/91
Date Completed: 12/27/91
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ECOLOGICAL RISK ASSESSMENT
Date Started: / /
Date Completed: 09/16/92
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RISK/HEALTH ASSESSMENT
Date Started: / /
Date Completed: 09/16/92
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: Notice Letters Issued
Date Started: / /
Date Completed: 01/12/93
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: Notice Letters Issued
Date Started: / /
Date Completed: 02/12/93
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 04/01/87
Date Completed: 03/31/93
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 03/31/93
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Project Suspended
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: Special Notice Issued
Date Started: / /
Date Completed: 05/26/93
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RECORD OF DECISION AMENDMENT
Date Started: / /
Date Completed: 09/22/93
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Special Notice Issued
Date Started: / /
Date Completed: 02/03/94
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 09/30/84
Date Completed: 07/01/94
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 01/30/89
Date Completed: 07/01/94
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: State Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 10/17/94
Date Completed: 03/16/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 03/16/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008
Action: Notice Letters Issued
Date Started: / /
Date Completed: 04/13/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009
Action: Notice Letters Issued
Date Started: / /
Date Completed: 04/20/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 010
Action: Notice Letters Issued
Date Started: / /
Date Completed: 05/05/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 05/26/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 05/31/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: REMEDIAL INVESTIGATION/FEASIBILITY STUDY NEGOTIATIONS
Date Started: 06/28/95
Date Completed: 07/25/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 07/25/95
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 016
Action: Notice Letters Issued
Date Started: / /
Date Completed: 08/18/95
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: LONG TERM RESPONSE ACTION
Date Started: 04/16/90
Date Completed: 05/25/98
Priority Level: Not reported
Operable Unit: RICHWOOD WATER COMPANY
Primary Responsibility: State, Fund Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 03/16/95
Date Completed: 06/23/99
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 06/23/99
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 03/27/97
Date Completed: 11/10/99
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: RECORD OF DECISION AMENDMENT
Date Started: / /
Date Completed: 11/10/99
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 07/25/95
Date Completed: 09/29/00

Map ID
Direction
Distance
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/29/00
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: CLAIM IN BANKRUPTCY PROCEEDING
Date Started: 06/30/99
Date Completed: 08/06/01
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: REMEDIAL DESIGN
Date Started: 04/05/99
Date Completed: 03/29/02
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: Lodged By DOJ
Date Started: / /
Date Completed: 04/22/02
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Lodged By DOJ
Date Started: / /
Date Completed: 04/22/02
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 08/22/02
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Not reported
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: CONSENT DECREE
Date Started: 08/20/96
Date Completed: 10/16/02
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: CONSENT DECREE
Date Started: 09/25/01
Date Completed: 10/16/02
Priority Level: Not reported
Operable Unit: SUBURBAN
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Code: 001
Action: OPERATIONAL & FUNCTIONAL
Date Started: 05/16/03
Date Completed: 05/16/03
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 03/28/02
Date Completed: 08/28/03
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: UNILATERAL ADMIN ORDER
Date Started: / /
Date Completed: 08/28/03
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Notice of Intent by All Parties
Date Started: / /
Date Completed: 09/22/03
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: REMEDIAL ACTION
Date Started: 09/27/00
Date Completed: 09/30/03

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Priority Level: Interim RA Report
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL DESIGN/REMEDIAL ACTION NEGOTIATIONS
Date Started: 07/12/01
Date Completed: 11/14/03
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: Lodged By DOJ
Date Started: / /
Date Completed: 03/05/04
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: CONSENT DECREE
Date Started: 11/14/03
Date Completed: 04/21/04
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 11/14/03
Date Completed: 04/28/05
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Anomaly: Phased Completion

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 11/10/05
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 01/12/88
Date Completed: 03/31/06
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/28/06
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: ADMINISTRATIVE ORDER ON CONSENT
Date Started: / /
Date Completed: 12/18/06
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action: NATIONAL PRIORITIES LIST RESPONSIBLE PARTY SEARCH
Date Started: 03/16/04
Date Completed: 05/18/07
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: Lodged By DOJ
Date Started: / /
Date Completed: 10/23/07
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: Lodged By DOJ
Date Started: / /
Date Completed: 10/23/07
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: CONSENT DECREE
Date Started: 09/18/07
Date Completed: 03/11/08
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: CONSENT DECREE
Date Started: 09/18/07
Date Completed: 04/10/08
Priority Level: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 11/14/03
Date Completed: 05/13/08
Priority Level: Not reported
Operable Unit: EL MONTE EASTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Phased Start

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 11/14/03
Date Completed: 02/09/10
Priority Level: Not reported
Operable Unit: EL MONTE WESTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Phased Start

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 09/18/06
Date Completed: 06/30/10
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: STATE SUPPORT AGENCY COOPERATIVE AGREEMENT
Date Started: 09/18/06
Date Completed: 06/30/10
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 11/14/03
Date Completed: 09/22/10
Priority Level: Not reported
Operable Unit: EL MONTE EASTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008
Action: Lodged By DOJ
Date Started: / /
Date Completed: 09/24/10
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008
Action: CONSENT DECREE
Date Started: 08/11/10
Date Completed: 03/29/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007
Action: Lodged By DOJ
Date Started: / /
Date Completed: 07/01/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 010

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action: Lodged By DOJ
Date Started: / /
Date Completed: 07/01/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 011
Action: Lodged By DOJ
Date Started: / /
Date Completed: 07/01/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 007
Action: CONSENT DECREE
Date Started: 06/30/11
Date Completed: 08/19/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 010
Action: CONSENT DECREE
Date Started: 06/30/11
Date Completed: 08/19/11
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: FIVE-YEAR REVIEW
Date Started: / /
Date Completed: 09/14/11

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009
Action: Lodged By DOJ
Date Started: / /
Date Completed: 02/22/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 009
Action: CONSENT DECREE
Date Started: / /
Date Completed: 04/13/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 013
Action: Lodged By DOJ
Date Started: / /
Date Completed: 05/15/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 012
Action: Lodged By DOJ
Date Started: / /
Date Completed: 05/15/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 012
Action: CONSENT DECREE
Date Started: / /
Date Completed: 07/11/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 011
Action: CONSENT DECREE
Date Started: / /
Date Completed: 07/11/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 014
Action: Lodged By DOJ
Date Started: / /
Date Completed: 10/26/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 013
Action: CONSENT DECREE
Date Started: / /
Date Completed: 12/14/12
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: SECTION 106 107 LITIGATION
Date Started: 11/17/10
Date Completed: 02/21/13
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Federal Enforcement
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 06/13/84
Date Completed: / /
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 008
Action: COMBINED REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 04/01/87
Date Completed: / /
Priority Level: Not reported
Operable Unit: BASIN-WIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: TECHNICAL ASSISTANCE
Date Started: 09/15/89
Date Completed: / /
Priority Level: Not reported
Operable Unit: EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: LONG TERM RESPONSE ACTION
Date Started: 05/16/03

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Date Completed: / /
Priority Level: Not reported
Operable Unit: WHITTIER-NARROWS
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL DESIGN
Date Started: 09/22/03
Date Completed: / /
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Original Action Take Over

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 05/13/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: EL MONTE EASTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: REMEDIAL ACTION
Date Started: 08/07/08
Date Completed: / /
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Special Account Financed Action - EPA
Planning Status: Primary
Urgency Indicator: Long Term Action
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 02/09/10
Date Completed: / /
Priority Level: Not reported
Operable Unit: EL MONTE WESTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: REMEDIAL INVESTIGATION
Date Started: 07/14/10
Date Completed: / /
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: EPA Fund-Financed
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 006
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 09/22/10
Date Completed: / /
Priority Level: Not reported
Operable Unit: EL MONTE EASTSIDE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: POTENTIALLY RESPONSIBLE PARTY REMEDIAL ACTION
Date Started: 06/20/11
Date Completed: / /
Priority Level: Not reported
Operable Unit: SOUTH EL MONTE
Primary Responsibility: Responsible Party
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Other Start and Completion Anomaly

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:

Fed Register Date: 05/08/84
Fed Register Volume: 49
Page Number: 19480

Fed Register Date: 09/08/83
Fed Register Volume: 48
Page Number: 40674

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US ENG CONTROLS:

EPA ID: CAD980677355
Site ID: 0901951

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Name: SAN GABRIEL VALLEY (AREA 1)
Address: PECK RD & REAL
EL MONTE, CA 91733
EPA Region: 09
County: LOS ANGELES
Event Code: Not reported
Actual Date: 12/31/05

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/22/02
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Biological Treatment, (N.O.S.)

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/22/02
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Ion Exchange

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/22/02
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: UV Oxidation

Action ID: 002
Action Name: Explanation Of Significant Differences
Action Completion date: 11/10/05
Operable Unit: 05
Contaminated Media : Groundwater
Engineering Control: Biological Treatment, (Ex-Situ)

Action ID: 002
Action Name: Explanation Of Significant Differences
Action Completion date: 11/10/05
Operable Unit: 05
Contaminated Media : Groundwater
Engineering Control: Ion Exchange

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 05/11/84
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 05/11/84
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Flocculation

Map ID
Direction
Distance
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 05/11/84
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 05/11/84
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Operations & Maintenance (O&M)

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/88
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/88
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/88
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Reuse as Drinking Water

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/88
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)

Action ID: 004
Action Name: RECORD OF DECISION
Action Completion date: 03/31/93
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 005

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Natural Attenuation

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 06/23/99
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Reverse Osmosis

Action ID: 006
Action Name: RECORD OF DECISION
Action Completion date: 09/29/00
Operable Unit: 05
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 006
Action Name: RECORD OF DECISION
Action Completion date: 09/29/00
Operable Unit: 05
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption

Action ID: 001
Action Name: ROD Amendment

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Action Completion date: 09/22/93
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 001
Action Name: ROD Amendment
Action Completion date: 09/22/93
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 001
Action Name: ROD Amendment
Action Completion date: 09/22/93
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Flocculation

Action ID: 001
Action Name: ROD Amendment
Action Completion date: 09/22/93
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

Action ID: 001
Action Name: ROD Amendment
Action Completion date: 09/22/93
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: Operations & Maintenance (O&M)

Action ID: 002
Action Name: ROD Amendment
Action Completion date: 09/30/87
Operable Unit: 03
Contaminated Media : Groundwater
Engineering Control: Carbon Adsorption

Action ID: 003
Action Name: ROD Amendment
Action Completion date: 11/10/99
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Air Stripping

Action ID: 003
Action Name: ROD Amendment
Action Completion date: 11/10/99
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 003
Action Name: ROD Amendment
Action Completion date: 11/10/99

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 003
Action Name: ROD Amendment
Action Completion date: 11/10/99
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 003
Action Name: ROD Amendment
Action Completion date: 11/10/99
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: Treatment, (N.O.S.)

CONSENT:

EPA ID: CAD980677355
Site ID: Not reported
Case Title: Not reported
Court Num: Not reported
District: Not reported
Entered Date: Not reported

Full-text of the consent decree for this site issued by the United States District Court is available from EDR. Contact your EDR Account Executive.

ROD:

Full-text of USEPA Record of Decision(s) is available from EDR.

FINDS:

Registry ID: 110009329538

Environmental Interest/Information System

CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and it Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

PRP:

PRP name:

A & B BUS COMPANY
A & J SYSTEMS
A & L MOTOR PARTS, INC.
A&E PLASTICS CO.
A-1 ORNAMENTAL IRON
ABERCROMBIE, DEANNA
ACORN ENGINEERING CO.
ACROMIL
ADAMS AND CAMPBELL COMPANY LTD.
ADAMS AND COLTRIN, INC.
ADAMS FAMILY TRUST
ADVANCED HEAT TECHNOLOGY CORP.
AEROJET ELECTROSYSTEMS
AEROJET-GENERAL CORP.
AEROJET-GENERAL CORP.
AEROJET-GENERAL CORP.
AEROSOL SERVICES COMPANY
AIR DISTRIBUTION PRODUCTS, INC.
AIR DISTRIBUTION PRODUCTS, INC.
AIRCRAFT STAMPING CO
AIRCRAFT STAMPING CO
AIRCRAFT STAMPING COMPANY, INC
ALBERT ALFIERI
ALLEGHENY TECHNOLOGIES
ALLFAST FASTENING SYSTEMS, INC.
ALLIED PHOTO PRODUCTS INC.
ALLSTATE INSURANCE CO.
AMERICAN SHEDS INC.
AMERON, INC
ANDRUSS FAMILY TRUST
ANTHONY MONTES
APW NORTH AMERICA INC.
ARCADIA MACHINE AND TOOL
AREMAC ASSOCIATES
AREMAC ASSOCIATES
AREMAC HEAT TREATING, INC.
AREMAC HEAT TREATING,INC.
ART WEISS
ART WEISS
ART WEISS, INC.
ARTHUR B. SCHULTZ AND JOSEPH POLTORAK
ARTISTIC POLISHING AND PLATING
ARTISTIC POLISHING AND PLATING
ARTISTIC POLISHING AND PLATING
ASSOCIATED ASPHALT PAVING MATERIALS
ASTRO SEAL, INC.
ASTRO SEAL, INC.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAN GABRIEL VALLEY (AREA 1) (Continued)

1000114959

ASTRO SEAL, INC.
 ASTRONAUTIC ENAMELERS
 ASTRONAUTIC ENAMELERS
 AZUSA LAND RECLAMATION
 AZUSA LAND RECLAMATION
 AZUSA LAND RECLAMATION
 AZUSA ROCK INC.
 B&B RED-I-MIX-CONCRETE INC.
 B.J.SABIN

[Click this hyperlink](#) while viewing on your computer to access
 439 additional PRP: record(s) in the EDR Site Report.

B8
SW
 < 1/8
 0.007 mi.
 38 ft.

B.M. AUTO REPAIR
2818 TYLER AVE
EL MONTE, CA 91733

WIP S104576130
N/A

Site 1 of 3 in cluster B

Relative:
Lower

WIP:
 Region: 4
 File Number: 107.0048
File Status: Historical
 Staff: BPONEK
 Facility Suite: Not reported

Actual:
270 ft.

B9
SW
 < 1/8
 0.007 mi.
 38 ft.

2818 TYLER AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015387653
N/A

Site 2 of 3 in cluster B

Relative:
Lower

EDR Historical Auto Stations:

Name:	LICONAS AUTO REPAIR
Year:	1999
Address:	2818 TYLER AVE
Name:	VI NA AUTO BODY SHOP
Year:	2001
Address:	2818 TYLER AVE
Name:	LICONAS AUTO REPAIR
Year:	2002
Address:	2818 TYLER AVE
Name:	ALL STAR AUTO BODY SHOP
Year:	2003
Address:	2818 TYLER AVE
Name:	LICONAS AUTO REPAIR
Year:	2004
Address:	2818 TYLER AVE
Name:	AUTOMOTIVE BODY & PAINT
Year:	2005
Address:	2818 TYLER AVE

Actual:
270 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015387653

Name: AUTOMOTIVE BODY & PAINT
Year: 2006
Address: 2818 TYLER AVE

Name: VINA AUTO BODY REPAIR
Year: 2007
Address: 2818 TYLER AVE

Name: VINA AUTO BODY REPAIR
Year: 2008
Address: 2818 TYLER AVE

Name: EVOLUTION AUTOMOTIVE BODY & PAINT
Year: 2009
Address: 2818 TYLER AVE

Name: AUTOMOTIVE BODY & PAINT
Year: 2010
Address: 2818 TYLER AVE

B10
WNW
< 1/8
0.007 mi.
39 ft.

LEECO TRANSMISSION
2880 TYLER AVE
EL MONTE, CA 91733
Site 3 of 3 in cluster B

WIP S106765237
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.0211
File Status: Historical
Staff: CRS
Facility Suite: Not reported

Actual:
271 ft.

A11
NNW
< 1/8
0.009 mi.
50 ft.

11044 GARVEY AVE
SOUTH EL MONTE, CA 91733
Site 8 of 17 in cluster A

EDR US Hist Auto Stat 1015154821
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: SILVIA AUTO CORP
Year: 2004
Address: 11044 GARVEY AVE

Actual:
272 ft.

A12
NNE
< 1/8
0.010 mi.
52 ft.

11058 GARVEY AVE
SOUTH EL MONTE, CA 91733
Site 9 of 17 in cluster A

EDR US Hist Auto Stat 1015155203
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: LEON AUTO SERVICE
Year: 1999
Address: 11058 GARVEY AVE

Actual:
272 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015155203

Name: AUTO SERVICE LEON
Year: 2001
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2002
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2003
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2004
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2005
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2006
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2007
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2008
Address: 11058 GARVEY AVE

Name: LEONS AUTO SERVICE
Year: 2009
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2010
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2011
Address: 11058 GARVEY AVE

Name: AUTO SERVICE LEON
Year: 2012
Address: 11058 GARVEY AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A13
NW
< 1/8
0.011 mi.
59 ft.

11027 GARVEY AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015154250
N/A

Site 10 of 17 in cluster A

Relative:
Higher

EDR Historical Auto Stations:

Name: FRIENDS AUTO ELECTRIC
Year: 2001
Address: 11027 GARVEY AVE

Name: FRIENDS AUTO ELECTRIC
Year: 2002
Address: 11027 GARVEY AVE

Name: FRIENDS AUTO ELECTRIC
Year: 2003
Address: 11027 GARVEY AVE

Name: CHEQUE AUTO SERVICE
Year: 2004
Address: 11027 GARVEY AVE

Name: PALACIOS AUTO ELECTRIC
Year: 2007
Address: 11027 GARVEY AVE

Actual:
271 ft.

A14
NW
< 1/8
0.011 mi.
59 ft.

11029 GARVEY AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015154265
N/A

Site 11 of 17 in cluster A

Relative:
Higher

EDR Historical Auto Stations:

Name: GUZMAN RADIATOR
Year: 1999
Address: 11029 GARVEY AVE

Name: GUZMAN RADIATOR
Year: 2001
Address: 11029 GARVEY AVE

Name: RED & ARTS RADIATOR
Year: 2002
Address: 11029 GARVEY AVE

Name: GUZMAN RADIATOR
Year: 2004
Address: 11029 GARVEY AVE

Name: GUZMAN RADIATOR
Year: 2010
Address: 11029 GARVEY AVE

Name: GUZMAN RADIATORS
Year: 2011
Address: 11029 GARVEY AVE

Name: GUZMAN RADIATORS
Year: 2012

Actual:
271 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015154265

Address: 11029 GARVEY AVE

A15
NW
< 1/8
0.011 mi.
59 ft.

SERV-U PRINTING
11031 GARVEY AVE
EL MONTE, CA 91733
Site 12 of 17 in cluster A

WIP S106765261
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.0333
File Status: Historical
Staff: CRS
Facility Suite: Not reported

Actual:
271 ft.

A16
NNE
< 1/8
0.012 mi.
61 ft.

11059 GARVEY AVE
SOUTH EL MONTE, CA 91733
Site 13 of 17 in cluster A

EDR US Hist Auto Stat 1015155211
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: 8 BROTHERS AUTO REPAIR
Year: 2012
Address: 11059 GARVEY AVE

Actual:
272 ft.

A17
NNE
< 1/8
0.012 mi.
61 ft.

LEON AUTO SVC
11058 E GARVEY AVE
EL MONTE, CA 91732
Site 14 of 17 in cluster A

RCRA-SQG 1004675836
FINDS CAR000077636
HAZNET

Relative:
Higher

RCRA-SQG:
Date form received by agency: 07/11/2000
Facility name: LEON AUTO SVC
Facility address: 11058 E GARVEY AVE
EL MONTE, CA 91732
EPA ID: CAR000077636
Contact: AUGUSTIN SERRATOS
Contact address: 11058 E GARVEY AVE
EL MONTE, CA 91732
Contact country: US
Contact telephone: (626) 579-4378
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
272 ft.

Owner/Operator Summary:
Owner/operator name: AGUSTIN SERRATOS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEON AUTO SVC (Continued)

1004675836

Owner/operator address: 11058 E GARVEY AVE
EL MONTE, CA 91732
Owner/operator country: Not reported
Owner/operator telephone: (626) 579-4378
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:

Waste code: D039
Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110002940122

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year: 2012
Gepaid: CAR000077636
Contact: --
Telephone: 6265794378
Mailing Name: Not reported
Mailing Address: 11058 E GARVEY AVE
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Los Angeles
TSD EPA ID: CAT000613893
TSD County: Los Angeles

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

LEON AUTO SVC (Continued)

1004675836

Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.084
Facility County: Los Angeles

Year: 2003
Gepaid: CAR000077636
Contact: --
Telephone: 6265794378
Mailing Name: Not reported
Mailing Address: 11058 E GARVEY AVE
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.06
Facility County: Los Angeles

**A18
NW
< 1/8
0.012 mi.
62 ft.**

**RED & ART'S RADIATOR
11029 E. GARVEY AVE
EL MONTE, CA 91733

Site 15 of 17 in cluster A**

**Notify 65 S100179737
N/A**

**Relative:
Higher

Actual:
271 ft.**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 91733

**A19
NW
< 1/8
0.012 mi.
62 ft.**

**RED & ART'S RADIATORS
11029 GARVEY AVE
EL MONTE, CA 91732

Site 16 of 17 in cluster A**

**WIP S106765272
N/A**

**Relative:
Higher

Actual:
271 ft.**

WIP:
Region: 4
File Number: 107.0355
File Status: Historical
Staff: CRS
Facility Suite: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

C20
WNW
< 1/8
0.014 mi.
75 ft.

PRICE'S AUTO INSPECTION & REPAIR
TYLER AVE & GARVEY AVE
EL MONTE, CA 91731

EDR US Hist Auto Stat 1008994524
N/A

Site 1 of 3 in cluster C

Relative:
Higher

EDR Historical Auto Stations:

Name: PRICE'S AUTO INSPECTION & REPAIR
Year: 1998
Type: Not reported

Actual:
271 ft.

A21
NW
< 1/8
0.017 mi.
89 ft.

RED & ARTS RADIATOR
11029 EAST GARVEY
EL MONTE, CA

RCRA-SQG 1000100307
FINDS CAD982502221

Site 17 of 17 in cluster A

Relative:
Higher

RCRA-SQG:

Date form received by agency: 05/01/1989
Facility name: RED & ARTS RADIATOR
Facility address: 11029 EAST GARVEY
EL MONTE, CA 91733
EPA ID: CAD982502221
Mailing address: EAST GARVEY
EL MONTE, CA 91733
Contact: ENVIRONMENTAL MANAGER
Contact address: 11029 EAST GARVEY
EL MONTE, CA 91733
Contact country: US
Contact telephone: (818) 579-1278
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Actual:
271 ft.

Owner/Operator Summary:

Owner/operator name: GUYER ARTHUR
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RED & ARTS RADIATOR (Continued)

1000100307

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002834345

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C22
WNW
< 1/8
0.042 mi.
224 ft.

10968 GARVEY AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015149964
N/A

Site 2 of 3 in cluster C

Relative:
Lower

EDR Historical Auto Stations:

Name: PRICES AUTO INSPECTION
Year: 2003
Address: 10968 GARVEY AVE

Name: IM MOTORS
Year: 2004
Address: 10968 GARVEY AVE

Actual:
270 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

C23
WNW
< 1/8
0.042 mi.
224 ft.

JIM PRICE
10968 GARVEY
EL MONTE, CA

Site 3 of 3 in cluster C

SWEEPS UST **S103982615**
N/A

Relative:
Lower

SWEEPS UST:
Status: Active
Comp Number: 14143
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

D24
NE
< 1/8
0.047 mi.
250 ft.

WAYNE'S 4 WHEEL DRIVE REPAIR
3019 CONSOL AVE
EL MONTE, CA 91733

Site 1 of 3 in cluster D

WIP **S106765642**
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.0982
File Status: Historical
Staff: KELLIOTT
Facility Suite: Not reported

D25
NE
< 1/8
0.047 mi.
250 ft.

3019 CONSOL AVE
SOUTH EL MONTE, CA 91733

Site 2 of 3 in cluster D

EDR US Hist Auto Stat **1015403809**
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: AUTO RADIATOR
Year: 2010
Address: 3019 CONSOL AVE

Actual:
273 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D26
ENE
< 1/8
0.049 mi.
257 ft.

SAN GABRIEL VALLEY WATER CO
11142 GARVEY AVE
EL MONTE, CA

Site 3 of 3 in cluster D

CA FID UST S101618893
SWEEPS UST N/A
WIP
EMI

Relative:
Higher

CA FID UST:
Facility ID: 19053374
Regulated By: UTNKA
Regulated ID: 00006579
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: EL MONTE
Contact: Not reported
Contact Phone: Not reported
DUNS Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Actual:
274 ft.

SWEEPS UST:

Status: Active
Comp Number: 4207
Number: 9
Board Of Equalization: 44-007799
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-004207-000001
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 1

WIP:

Region: 4
File Number: 107.0322
File Status: Historical
Staff: BPONEK
Facility Suite: Not reported

EMI:

Year: 1990
County Code: 19
Air Basin: SC
Facility ID: 16982
Air District Name: SC
SIC Code: 4941
Air District Name: SOUTH COAST AQMD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY WATER CO (Continued)

S101618893

Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 2
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

E27
ENE
< 1/8
0.050 mi.
264 ft.

SAN GABRIEL VALLEY WATER CO
11142 GARVEY AVE
SOUTH EL MONTE, CA 91733
Site 1 of 3 in cluster E

UST **U004049670**
N/A

Relative:
Higher
Actual:
274 ft.

UST:
Facility ID: 4207
Latitude: 34.06283
Longitude: -118.03304

E28
ENE
< 1/8
0.050 mi.
264 ft.

SAN GABRIEL VALLEY WATER CO
11142 E GARVEY AVE
EL MONTE, CA
Site 2 of 3 in cluster E

LUST **U001569493**
HIST UST **N/A**
LOS ANGELES CO. HMS

Relative:
Higher
Actual:
274 ft.

LUST:
Region: STATE
Global Id: T0603724263
Latitude: 34.062353
Longitude: -118.032539
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 03/23/2007
Lead Agency: LOS ANGELES COUNTY
Case Worker: TS
Local Agency: LOS ANGELES COUNTY
RB Case Number: Not reported
LOC Case Number: 4061-4207
File Location: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603724263
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY WATER CO (Continued)

U001569493

Global Id: T0603724263
Contact Type: Local Agency Caseworker
Contact Name: TIM SMITH
Organization Name: LOS ANGELES COUNTY
Address: 900 S. FREMONT AVE.
City: ALHAMBRA
Email: tsmith@dpw.lacounty.gov
Phone Number: Not reported

Regulatory Activities:

Global Id: T0603724263
Action Type: ENFORCEMENT
Date: 03/23/2007
Action: Closure/No Further Action Letter

Global Id: T0603724263
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603724263
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

HIST UST:

Region: STATE
Facility ID: 00000006579
Facility Type: Other
Other Type: PUBLIC UTILITY
Total Tanks: 0003
Contact Name: I. G. HOLMBERG, PRESIDENT
Telephone: 8184486183
Owner Name: SAN GABRIEL VALLEY WATER COMPA
Owner Address: 11142 EAST GARVEY AVENUE
Owner City,St,Zip: EL MONTE, CA 91733

Tank Num: 001
Container Num: #1
Year Installed: 1973
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: #2
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: None

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL VALLEY WATER CO (Continued)

U001569493

Tank Num: 003
Container Num: #3
Year Installed: Not reported
Tank Capacity: 00000500
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 004061-004207
Facility Type: T0
Facility Status: Permit
Area: 3C
Permit Number: 00000408T
Permit Status: Permit

Region: LA
Facility Id: 004061-104207
Facility Type: I00
Facility Status: Closed
Area: 3C
Permit Number: 00001877X
Permit Status: Closed

F29
SSW
< 1/8
0.054 mi.
284 ft.

2723 TYLER AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015381139
N/A

Site 1 of 3 in cluster F

Relative:
Lower

Actual:
269 ft.

EDR Historical Auto Stations:
Name: ALPHA STAR AUTOMOTIVE
Year: 2011
Address: 2723 TYLER AVE

F30
SSW
< 1/8
0.067 mi.
353 ft.

2703 TYLER AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015379271
N/A

Site 2 of 3 in cluster F

Relative:
Lower

Actual:
269 ft.

EDR Historical Auto Stations:
Name: AUTO REPAIR CASTANEDA
Year: 1999
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2001
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2002
Address: 2703 TYLER AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

(Continued)

1015379271

Name: AUTO REPAIR CASTANEDA
Year: 2005
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2006
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2007
Address: 2703 TYLER AVE

Name: CASTANEDA AUTO REPAIR
Year: 2008
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2009
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2010
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2011
Address: 2703 TYLER AVE

Name: AUTO REPAIR CASTANEDA
Year: 2012
Address: 2703 TYLER AVE

F31
SSW
< 1/8
0.080 mi.
420 ft.

2714 TYLER AVE
SOUTH EL MONTE, CA 91733
Site 3 of 3 in cluster F

EDR US Hist Auto Stat 1015380377
N/A

Relative:
Lower
Actual:
269 ft.

EDR Historical Auto Stations:

Name: ALPHA STAR AUTOMOTIVE
Year: 2001
Address: 2714 TYLER AVE

Name: ALPHA STAR AUTOMOTIVE
Year: 2002
Address: 2714 TYLER AVE

Name: ALPHA STAR AUTOMOTIVE
Year: 2003
Address: 2714 TYLER AVE

Name: ALPHA STAR AUTOMOTIVE
Year: 2009
Address: 2714 TYLER AVE

Name: ALPHA STAR AUTOMOTIVE
Year: 2010
Address: 2714 TYLER AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PAUL'S CARBURETOR & TUNE UP (Continued)

S106765865

Staff: UNIDENTIFIED
Facility Suite: Not reported

H35
East
< 1/8
0.107 mi.
564 ft.

2832 NEW DEAL AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat **1015388724**
N/A

Site 1 of 5 in cluster H

Relative:
Higher

EDR Historical Auto Stations:

Name: FATBOY GARAGE MOTORSPORTS
Year: 2003
Address: 2832 NEW DEAL AVE

Actual:
274 ft.

Name: FATBOY GARAGE MOTORSPORT
Year: 2004
Address: 2832 NEW DEAL AVE

H36
ENE
< 1/8
0.112 mi.
592 ft.

UNOCAL CORP SS 2657
11225 E GARVEY AVE
EL MONTE, CA

CA FID UST **S101585340**
SWEEPS UST **N/A**
LOS ANGELES CO. HMS

Site 2 of 5 in cluster H

Relative:
Higher

CA FID UST:

Facility ID: 19023051
Regulated By: UTNKA
Regulated ID: 00002941
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8180000000
Mail To: Not reported
Mailing Address: 3701 WILSIRE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: EL MONTE
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Actual:
275 ft.

SWEEPS UST:

Status: Active
Comp Number: 3268
Number: 9
Board Of Equalization: 44-001057
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-003268-000001
Actv Date: 06-30-89
Capacity: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

UNOCAL CORP SS 2657 (Continued)

S101585340

Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 3

Status: Active
Comp Number: 3268
Number: 9
Board Of Equalization: 44-001057
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-003268-000002
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 3268
Number: 9
Board Of Equalization: 44-001057
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-003268-000003
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 003154-I03268
Facility Type: I00
Facility Status: Closed
Area: 3C
Permit Number: 000001418
Permit Status: Closed

Region: LA
Facility Id: 003154-003268
Facility Type: T0
Facility Status: Closed
Area: 3C
Permit Number: 00001432T
Permit Status: Closed

Region: LA

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

UNOCAL CORP SS 2657 (Continued)

S101585340

Facility Id: 003154-024747
 Facility Type: T0
 Facility Status: Closed
 Area: 3C
 Permit Number: 000190324
 Permit Status: Closed

Region: LA
 Facility Id: 003154-051200
 Facility Type: SS5
 Facility Status: Closed
 Area: 3C
 Permit Number: 000564755
 Permit Status: Closed

Region: LA
 Facility Id: 003154-051834
 Facility Type: T0
 Facility Status: Permit
 Area: 3C
 Permit Number: 000584718
 Permit Status: Permit

H37
ENE
 < 1/8
 0.112 mi.
 592 ft.

76 PRODUCTS STATION #2657
11225 GARVEY
EL MONTE, CA 91733
 Site 3 of 5 in cluster H

HIST CORTESE **S102590657**
 N/A

Relative:
Higher

CORTESE:
 Region: CORTESE
 Facility County Code: 19
 Reg By: LTNKA
 Reg Id: I-03268

Actual:
275 ft.

H38
ENE
 < 1/8
 0.112 mi.
 592 ft.

TOSCO - 76 STATION #2657
11225 GARVEY AVE E
EL MONTE, CA 91733
 Site 4 of 5 in cluster H

LUST **S105693770**
 N/A

Relative:
Higher

LUST:
 Region: STATE
 Global Id: T0603702898
 Latitude: 34.0631374
 Longitude: -118.031022373
 Case Type: LUST Cleanup Site
 Status: Completed - Case Closed
 Status Date: 07/28/2011
 Lead Agency: LOS ANGELES RWQCB (REGION 4)
 Case Worker: NB
 Local Agency: LOS ANGELES COUNTY
 RB Case Number: I-03268
 LOC Case Number: Not reported
 File Location: Regional Board
 Potential Media Affect: Aquifer used for drinking water supply

Actual:
275 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0603702898
Contact Type: Regional Board Caseworker
Contact Name: NHAN BAO
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: nbao@waterboards.ca.gov
Phone Number: 2135766703

Global Id: T0603702898
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Regulatory Activities:

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2006
Action: Well Installation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 09/01/2004
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2007
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Date: 07/20/2007
Action: Soil and Water Investigation Workplan

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2004
Action: Soil and Water Investigation Workplan

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2006
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2009
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 03/14/2006
Action: Staff Letter

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 01/14/2002
Action: 13267 Requirement

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 02/04/2008
Action: Staff Letter

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 04/07/2011
Action: Site Visit / Inspection / Sampling

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Global Id:	T0603702898
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Interim Remedial Action Plan
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Soil and Water Investigation Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Interim Remedial Action Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Well Installation Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	04/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	04/15/2005
Action:	Soil and Water Investigation Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	02/15/2006
Action:	Soil and Water Investigation Workplan
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	01/15/2006
Action:	Remedial Progress Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	04/15/2006
Action:	Soil and Water Investigation Report
Global Id:	T0603702898
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Date: 10/15/2008
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2006
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2006
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2007
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603702898
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603702898
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/25/2003
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2004
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2009
Action: Request for Closure

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2009
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Date: 10/15/2004
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2008
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2010
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2007
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2003
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Soil and Water Investigation Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702898
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	08/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	ENFORCEMENT
Date:	06/22/2006
Action:	Site Visit / Inspection / Sampling
Global Id:	T0603702898
Action Type:	ENFORCEMENT
Date:	05/28/2004
Action:	Staff Letter
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Conceptual Site Model
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Soil and Water Investigation Report
Global Id:	T0603702898
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603702898
Action Type:	RESPONSE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

Date: 07/15/2009
Action: Conceptual Site Model

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 10/31/2003
Action: Staff Letter

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 10/03/2007
Action: Staff Letter

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 07/28/2011
Action: Closure/No Further Action Letter

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2003
Action: Soil and Water Investigation Report

Global Id: T0603702898
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603702898
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603702898
Action Type: ENFORCEMENT
Date: 12/21/2005
Action: Staff Letter

Global Id: T0603702898
Action Type: RESPONSE
Date: 01/15/2008
Action: Conceptual Site Model

LUST REG 4:

Region: 4
Regional Board: 04

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

TOSCO - 76 STATION #2657 (Continued)

S105693770

County: Los Angeles
Facility Id: I-03268
Status: Pollution Characterization
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603702898
W Global ID: Not reported
Staff: NB
Local Agency: 19000
Cross Street: PECK RD
Enforcement Type: SEL
Date Leak Discovered: 2/8/1994
Date Leak First Reported: 2/11/1994
Date Leak Record Entered: 6/6/1995
Date Confirmation Began: 2/11/1994
Date Leak Stopped: 2/9/1994
Date Case Last Changed on Database: 7/15/2002
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: Other Cause
Leak Source: Piping
Operator: BEHROUZ SHIRDEL
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 1463.3822348533139380436859288
Source of Cleanup Funding: Piping
Preliminary Site Assessment Workplan Submitted: 5/28/1997
Preliminary Site Assessment Began: 6/12/1997
Pollution Characterization Began: 1/16/2004
Remediation Plan Submitted: 1/14/2002
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: 2/11/1994
Enforcement Action Date: Not reported
Historical Max MTBE Date: 8/11/1999
Hist Max MTBE Conc in Groundwater: 5500
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: MS. LIZ SEWELL
RP Address: P.O. BOX 25376
Program: LUST
Lat/Long: 34.0631374 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: RECEIVED RESPONSE TO OUR MARCH 21, 2000, LETTER; 10/15/00 3RD QTR STATUS RPT 2000; 1/8/01 4TH QTR GW MON RPT 2000

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

H39
East
1/8-1/4
0.139 mi.
734 ft.

11207 GARVEY AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat **1015161112**
N/A

Site 5 of 5 in cluster H

Relative:
Higher

EDR Historical Auto Stations:

Name: FRADS AUTO ELECTRIC
Year: 2003
Address: 11207 GARVEY AVE

Actual:
275 ft.

Name: FRADS AUTO ELECTRIC
Year: 2004
Address: 11207 GARVEY AVE

I40
East
1/8-1/4
0.148 mi.
783 ft.

SERVICE STATION 2657
11225 GARVEY AVE
EL MONTE, CA 91733

HIST UST **U001569495**
N/A

Site 1 of 9 in cluster I

Relative:
Higher

HIST UST:

Region: STATE
Facility ID: 00000029413
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0003
Contact Name: EXCEL OIL INC
Telephone: 2139776227
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: 3701 WILSHIRE BOULEVARD-SUITE
Owner City,St,Zip: LOS ANGELES, CA 90010

Actual:
275 ft.

Tank Num: 001
Container Num: 2657-3
Year Installed: 1983
Tank Capacity: 00009886
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 002
Container Num: 2657-2
Year Installed: 1983
Tank Capacity: 00011763
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

Tank Num: 003
Container Num: 2657-1
Year Installed: 1983
Tank Capacity: 00011763
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, Pressure Test

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
I41 East 1/8-1/4 0.148 mi. 783 ft.	TOSCO/UNOCAL #30451 11225 GARVEY AVE SOUTH EL MONTE, CA 91733 Site 2 of 9 in cluster I	UST	U004049411 N/A
Relative: Higher	UST: Facility ID: 24747 Latitude: 34.06287 Longitude: -118.03132		
Actual: 275 ft.			
J42 SSW 1/8-1/4 0.183 mi. 964 ft.	2621 TYLER AVE SOUTH EL MONTE, CA 91733 Site 1 of 4 in cluster J	EDR US Hist Auto Stat	1015373839 N/A
Relative: Lower	EDR Historical Auto Stations: Name: M & M AUTO REPAIR Year: 1999 Address: 2621 TYLER AVE Name: M & M AUTO REPAIR Year: 2002 Address: 2621 TYLER AVE		
Actual: 268 ft.			
K43 SSW 1/8-1/4 0.189 mi. 998 ft.	IDEAL MACHINING AND SUPPLY 2630 NEVADA AVE EL MONTE, CA 91733 Site 1 of 2 in cluster K	WIP	S106765403 N/A
Relative: Lower	WIP: Region: 4 File Number: 107.0625 File Status: Historical Staff: ACARLOS Facility Suite: Not reported		
Actual: 267 ft.			
I44 East 1/8-1/4 0.190 mi. 1002 ft.	SHELL OIL CO 11301 GARVEY EL MONTE, CA Site 3 of 9 in cluster I	RCRA-SQG FINDS	1000288511 CAD981465750
Relative: Higher	RCRA-SQG: Date form received by agency: 02/26/2004 Facility name: SHELL SERVICE STATION Facility address: 11301 GARVEY ROAD / PECK SAP #135260 EL MONTE, CA 91733 EPA ID: CAD981465750 Mailing address: SHELL OIL PRODUCTS US 12700 NORTHBOROUGH DR MFT240G HOUSTON, TX 770672508 Contact: GEORGINA E DAVILA Contact address: Not reported		
Actual: 276 ft.			

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL OIL CO (Continued)

1000288511

Contact country: Not reported
Contact telephone: Not reported
Contact telephone: (714) 970-2912
Contact email: GEDAVILA@SHELLOPUS.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: SHELL OIL PRODUCTS US
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 08/01/1998
Owner/Op end date: Not reported

Owner/operator name: EQUILON ENTERPRISES LLC DBA SHELL OIL PR
Owner/operator address: PO BOX 2648
HOUSTON, TX 77252
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 08/01/1998
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/26/2004
Facility name: SHELL SERVICE STATION
Classification: Large Quantity Generator

Date form received by agency: 04/08/1998

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHELL OIL CO (Continued)

1000288511

Facility name: SHELL SERVICE STATION
 Site name: SHELL OIL CO
 Classification: Small Quantity Generator

Date form received by agency: 09/01/1996
 Facility name: SHELL SERVICE STATION
 Site name: SHELL OIL CO
 Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002716482

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

I45
East
1/8-1/4
0.192 mi.
1015 ft.

GARVEY
11301 GARVEY AVE
EL MONTE, CA 91733
Site 4 of 9 in cluster I

HIST UST **U001569459**
N/A

Relative:
Higher

HIST UST:
 Region: STATE
 Facility ID: 00000061087
 Facility Type: Gas Station
 Other Type: Not reported
 Total Tanks: 0003
 Contact Name: JOSE RAMIREZ
 Telephone: 8184427794
 Owner Name: SHELL OIL COMPANY
 Owner Address: P.O. BOX 4848
 Owner City,St,Zip: ANAHEIM, CA 92803

Actual:
276 ft.

Tank Num: 001
 Container Num: 1
 Year Installed: 1983
 Tank Capacity: 00010000
 Tank Used for: PRODUCT
 Type of Fuel: UNLEADED
 Tank Construction: 1/4 inches
 Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

GARVEY (Continued)

U001569459

Tank Num: 002
 Container Num: 2
 Year Installed: 1983
 Tank Capacity: 00010000
 Tank Used for: PRODUCT
 Type of Fuel: REGULAR
 Tank Construction: 1/4 inches
 Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

Tank Num: 003
 Container Num: 3
 Year Installed: 1983
 Tank Capacity: 00010000
 Tank Used for: PRODUCT
 Type of Fuel: PREMIUM
 Tank Construction: 1/4 inches
 Leak Detection: Stock Inventor, Groundwater Monitoring Well, 10

L46
ESE
1/8-1/4
0.193 mi.
1019 ft.

2821 PECK RD
SOUTH EL MONTE, CA 91733

EDR US Hist Cleaners 1015034259
N/A

Site 1 of 5 in cluster L

Relative:
Higher

EDR Historical Cleaners:
 Name: LAUNDRYLAND
 Year: 1999
 Address: 2821 PECK RD

Actual:
275 ft.

47
West
1/8-1/4
0.194 mi.
1024 ft.

10830 GARVEY AVE
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015147431
N/A

Relative:
Lower

EDR Historical Auto Stations:
 Name: H & S AUTO CTR
 Year: 2002
 Address: 10830 GARVEY AVE

Actual:
269 ft.

I48
East
1/8-1/4
0.194 mi.
1025 ft.

SHELL SERV STA
11301 E GARVEY AVE
EL MONTE, CA

SWEEPS UST S103392727
LOS ANGELES CO. HMS N/A

Site 5 of 9 in cluster I

Relative:
Higher

SWEEPS UST:
 Status: Active
 Comp Number: 9509
 Number: 9
 Board Of Equalization: 44-000074
 Referral Date: 06-30-89
 Action Date: Not reported
 Created Date: 06-30-89
 Tank Status: A

Actual:
276 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL SERV STA (Continued)

S103392727

Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009509-000001
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 4

Status: Active
Comp Number: 9509
Number: 9
Board Of Equalization: 44-000074
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009509-000002
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9509
Number: 9
Board Of Equalization: 44-000074
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009509-000003
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 9509
Number: 9
Board Of Equalization: 44-000074
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-009509-000004
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL SERV STA (Continued)

S103392727

Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 009676-026383
Facility Type: T0
Facility Status: Removed
Area: 3C
Permit Number: 000227892
Permit Status: Removed

I49
East
1/8-1/4
0.194 mi.
1025 ft.

SHELL SERVICE STATION
11301 GARVEY AVE.
EL MONTE, CA 91732
Site 6 of 9 in cluster I

LUST S103623668
N/A

Relative:
Higher

LUST:

Region: STATE
Global Id: T0603707123
Latitude: 34.063126055
Longitude: -118.030296572
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/22/2008
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JFL
Local Agency: LOS ANGELES COUNTY
RB Case Number: R-26383
LOC Case Number: 9676-26383
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Actual:
276 ft.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0603707123
Contact Type: Local Agency Caseworker
Contact Name: SAM STEVENS
Organization Name: LOS ANGELES COUNTY
Address: 900 S. FREMONT AVE.
City: ALHAMBRA
Email: Not reported
Phone Number: 6264583507

Global Id: T0603707123
Contact Type: Regional Board Caseworker
Contact Name: JOE F. LUERA
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH STREET, SUITE 200
City: LOS ANGELES
Email: jluera@waterboards.ca.gov
Phone Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL SERVICE STATION (Continued)

S103623668

Regulatory Activities:

Global Id:	T0603707123
Action Type:	RESPONSE
Date:	07/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603707123
Action Type:	RESPONSE
Date:	06/05/2008
Action:	Other Report / Document
Global Id:	T0603707123
Action Type:	ENFORCEMENT
Date:	02/13/2008
Action:	Staff Letter
Global Id:	T0603707123
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Excavation
Global Id:	T0603707123
Action Type:	RESPONSE
Date:	07/03/2008
Action:	Well Destruction Report
Global Id:	T0603707123
Action Type:	ENFORCEMENT
Date:	03/30/2007
Action:	Staff Letter
Global Id:	T0603707123
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported
Global Id:	T0603707123
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Electronic Reporting Submittal Due
Global Id:	T0603707123
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603707123
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603707123
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603707123

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHELL SERVICE STATION (Continued)

S103623668

Action Type: ENFORCEMENT
Date: 05/15/2008
Action: Notification - Preclosure

Global Id: T0603707123
Action Type: ENFORCEMENT
Date: 05/22/2008
Action: Closure/No Further Action Letter

Global Id: T0603707123
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603707123
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603707123
Action Type: RESPONSE
Date: 05/15/2007
Action: Other Report / Document

I50
East
1/8-1/4
0.194 mi.
1025 ft.

WIN SHELL
11301 GARVEY AVE
EL MONTE, CA 91732
Site 7 of 9 in cluster I

UST U003778005
N/A

Relative:
Higher

UST:
Facility ID: 26383
Latitude: 34.06287
Longitude: -118.03041

Actual:
276 ft.

I51
East
1/8-1/4
0.194 mi.
1025 ft.

SHELL SERVICE STATION DEALERS
11301 GARVEY AVE
EL MONTE, CA 91731
Site 8 of 9 in cluster I

EDR US Hist Auto Stat 1008994523
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: SHELL SERVICE STATION DEALERS
Year: 1998
Type: Not reported

Actual:
276 ft.

Name: SHELL SERVICE STN DLRS
Year: 2003
Address: 11301 GARVEY AVE

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance		Database(s)	
Elevation	Site		

L52 ESE 1/8-1/4 0.195 mi. 1029 ft.	2822 PECK RD SOUTH EL MONTE, CA 91733 Site 2 of 5 in cluster L	EDR US Hist Cleaners	1015034279 N/A
Relative: Higher	EDR Historical Cleaners: Name: DUST BUSTERS HOUSE CLEANING Year: 2002 Address: 2822 PECK RD		
Actual: 275 ft.			

L53 ESE 1/8-1/4 0.195 mi. 1029 ft.	2809 PECK RD SOUTH EL MONTE, CA 91733 Site 3 of 5 in cluster L	EDR US Hist Auto Stat	1015386825 N/A
Relative: Higher	EDR Historical Auto Stations: Name: U S FOREIGN AUTO REPAIR Year: 1999 Address: 2809 PECK RD		
Actual: 274 ft.			
	Name: U S FOREIGN AUTO REPAIR Year: 2008 Address: 2809 PECK RD		
	Name: US FOREIGN AUTO REPAIR Year: 2009 Address: 2809 PECK RD		
	Name: U S FOREIGN AUTO REPAIR Year: 2010 Address: 2809 PECK RD		
	Name: U S FOREIGN AUTO REPAIR Year: 2011 Address: 2809 PECK RD		
	Name: U S FOREIGN AUTO REPAIR Year: 2012 Address: 2809 PECK RD		

I54 ENE 1/8-1/4 0.195 mi. 1032 ft.	RAMIREZ SHELL 11301 E GARVEY EL MONTE, CA 91732 Site 9 of 9 in cluster I	RCRA-SQG	1000261321 CAD982323230
Relative: Higher	RCRA-SQG: Date form received by agency: 01/25/1988 Facility name: RAMIREZ SHELL Facility address: 11301 E GARVEY EL MONTE, CA 91732 EPA ID: CAD982323230 Mailing address: E GARVEY EL MONTE, CA 91732 Contact: ENVIRONMENTAL MANAGER Contact address: 11301 E GARVEY		
Actual: 276 ft.			

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RAMIREZ SHELL (Continued)

1000261321

EL MONTE, CA 91732
Contact country: US
Contact telephone: (818) 442-7794
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: JOSE RAMIREZ
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

L55
ESE
1/8-1/4
0.196 mi.
1036 ft.

2812 PECK RD
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015387241
N/A

Site 4 of 5 in cluster L

Relative:
Higher

EDR Historical Auto Stations:

Name: BOURRET AUTO GLASS & UPHLSTRY INC
Year: 2003
Address: 2812 PECK RD

Actual:
275 ft.

Name: BOURRET AUTO GLASS & UPHOLSTERY
Year: 2009
Address: 2812 PECK RD

M56
ENE
1/8-1/4
0.198 mi.
1048 ft.

3014 PECK RD
EL MONTE, CA 91731

EDR US Hist Auto Stat 1015403490
N/A

Site 1 of 6 in cluster M

Relative:
Higher

EDR Historical Auto Stations:

Name: EL MONTE TRAILER REPAIR
Year: 1999
Address: 3014 PECK RD

Actual:
276 ft.

Name: EL MONTE TRAILER REPAIR INC
Year: 2005
Address: 3014 PECK RD

Name: EL MONTE TRAILER REPAIR
Year: 2006
Address: 3014 PECK RD

Name: EL MONTE TRAILER REPAIR
Year: 2007
Address: 3014 PECK RD

M57
ENE
1/8-1/4
0.198 mi.
1048 ft.

EL MONTE TRAILER REPAIR INC.
3014 PECK RD
EL MONTE, CA 91731

WIP S106765576
N/A

Site 2 of 6 in cluster M

Relative:
Higher

WIP:

Region: 4
File Number: 107.0883
File Status: Historical
Staff: UNIDENTIFIED
Facility Suite: Not reported

Actual:
276 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

L58
ESE
1/8-1/4
0.199 mi.
1049 ft.

CHIKO'S
2728 PECK RD
EL MONTE, CA 91732

Site 5 of 5 in cluster L

WIP **S106765974**
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.1520
File Status: Not reported
Staff: UNIDENTIFIED
Facility Suite: Not reported

Actual:
274 ft.

N59
ESE
1/8-1/4
0.200 mi.
1058 ft.

P AND H AUTOMOTIVE
2711 PECK RD
EL MONTE, CA 91733

Site 1 of 6 in cluster N

WIP **S106765246**
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.0260
File Status: Historical
Staff: KELLIOTT
Facility Suite: Not reported

Actual:
273 ft.

M60
ENE
1/8-1/4
0.201 mi.
1060 ft.

3023 PECK RD
EL MONTE, CA 91731

Site 3 of 6 in cluster M

EDR US Hist Auto Stat **1015404827**
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name:	PETES COLLISION CTR
Year:	2002
Address:	3023 PECK RD
Name:	OLVERA GARAGE AUTO SPECIALTIES
Year:	2005
Address:	3023 PECK RD
Name:	OLVERA GARAGE AUTO SPECIALTIES
Year:	2007
Address:	3023 PECK RD
Name:	TOWN TIRE & AUTOMOTIVE CENTER
Year:	2009
Address:	3023 PECK RD
Name:	TOWN TIRE & AUTOMOTIVE CENTER
Year:	2011
Address:	3023 PECK RD
Name:	TOWN TIRE & AUTOMOTIVE CENTER
Year:	2012
Address:	3023 PECK RD

Actual:
276 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

M61
ENE
1/8-1/4
0.201 mi.
1060 ft.

FREEMAN CO
3023 PECK RD
EL MONTE, CA

Site 4 of 6 in cluster M

SWEEPS UST **1000389765**
N/A

Relative:
Higher

SWEEPS UST:
Status: Active
Comp Number: 12977
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

Actual:
276 ft.

M62
East
1/8-1/4
0.206 mi.
1089 ft.

SNEILS TRAILER SALES
11317 GARVEY AVE
EL MONTE, CA 91732

Site 5 of 6 in cluster M

WIP **S106765265**
N/A

Relative:
Higher

WIP:
Region: 4
File Number: 107.0338
File Status: Historical
Staff: BPONEK
Facility Suite: Not reported

Actual:
276 ft.

M63
East
1/8-1/4
0.207 mi.
1091 ft.

11318 GARVEY AVE
EL MONTE, CA 91732

Site 6 of 6 in cluster M

EDR US Hist Auto Stat **1015164118**
N/A

Relative:
Higher

EDR Historical Auto Stations:
Name: ALL TECH AUTO INC
Year: 2010
Address: 11318 GARVEY AVE

Name: ALL TECH AUTO INC
Year: 2011
Address: 11318 GARVEY AVE

Name: ALL TECH AUTO
Year: 2012
Address: 11318 GARVEY AVE

Actual:
276 ft.

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

J64 SSW 1/8-1/4 0.209 mi. 1104 ft.	2607 TYLER AVE SOUTH EL MONTE, CA 91733 Site 2 of 4 in cluster J	EDR US Hist Auto Stat 	1015372399 N/A
---	---	--------------------------------------	---------------------------------

Relative: Lower	EDR Historical Auto Stations:	
Actual: 267 ft.	Name: M & M AUTO REPAIR Year: 2004 Address: 2607 TYLER AVE Name: M & M AUTO REPAIR Year: 2005 Address: 2607 TYLER AVE Name: M & M AUTO REPAIR Year: 2006 Address: 2607 TYLER AVE Name: M & M AUTO REPAIR Year: 2007 Address: 2607 TYLER AVE Name: SMOG CHECK STATIONS Year: 2010 Address: 2607 TYLER AVE Name: SMOG CHECK STATIONS Year: 2011 Address: 2607 TYLER AVE Name: SMOG CHECK STATIONS Year: 2012 Address: 2607 TYLER AVE	

J65 SSW 1/8-1/4 0.209 mi. 1104 ft.	M&M AUTO REPAIR 2607 TYLER AVE EL MONTE, CA 91733 Site 3 of 4 in cluster J	WIP	S106765240 N/A
---	---	------------	---------------------------------

Relative: Lower	WIP:	
Actual: 267 ft.	Region: 4 File Number: 107.0217 File Status: Historical Staff: CRS Facility Suite: Not reported	

N66 ESE 1/8-1/4 0.219 mi. 1157 ft.	CHIKOIS AUTO SALES 2728 PECK RD EL MONTE, CA Site 2 of 6 in cluster N	RCRA-SQG FINDS	1000271675 CAD982323156
---	--	---------------------------------	--

Relative: Higher	RCRA-SQG:	
Actual: 273 ft.	Date form received by agency: 01/25/1988 Facility name: CHIKOIS AUTO SALES Facility address: 2728 PECK RD	

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHIKOIS AUTO SALES (Continued)

1000271675

EPA ID: EL MONTE, CA 91733
CAD982323156
Mailing address: PECK RD
EL MONTE, CA 91733
Contact: ENVIRONMENTAL MANAGER
Contact address: 2728 PECK RD
EL MONTE, CA 91733
Contact country: US
Contact telephone: (818) 575-4701
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: RAMON REYES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CHIKOIS AUTO SALES (Continued)

1000271675

Violation Status: No violations found

FINDS:

Registry ID: 110002794263

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

N67
ESE
1/8-1/4
0.222 mi.
1171 ft.

2717 PECK RD
SOUTH EL MONTE, CA 91733

EDR US Hist Auto Stat 1015380594
N/A

Site 3 of 6 in cluster N

Relative:
Higher

EDR Historical Auto Stations:

Name: ASJ AUTO REPAIR
Year: 2001
Address: 2717 PECK RD

Name: A & J AUTO REPAIR
Year: 2003
Address: 2717 PECK RD

Name: ASJ AUTO REPAIR
Year: 2005
Address: 2717 PECK RD

Name: ASJ AUTO REPAIR
Year: 2006
Address: 2717 PECK RD

Name: ASJ AUTO REPAIR
Year: 2007
Address: 2717 PECK RD

Name: ASJ AUTO REPAIR
Year: 2008
Address: 2717 PECK RD

Actual:
273 ft.

N68
ESE
1/8-1/4
0.222 mi.
1171 ft.

CARBURERTOR CENTER
2717 N. PECK ROAD
EL MONTE, CA 91733

RCRA-SQG 1000165216
FINDS CAD982368946
HAZNET

Site 4 of 6 in cluster N

Relative:
Higher

RCRA-SQG:

Date form received by agency: 04/11/1988
Facility name: CARBURERTOR CENTER
Facility address: 2717 N. PECK ROAD
EL MONTE, CA 91733

Actual:
273 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CARBURERTOR CENTER (Continued)

1000165216

EPA ID: CAD982368946
Contact: ENVIRONMENTAL MANAGER
Contact address: 2717 N. PECK ROAD
EL MONTE, CA 91733
Contact country: US
Contact telephone: (818) 350-8245
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: FROYLAN, MACIAS
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CARBURERTOR CENTER (Continued)

1000165216

Registry ID: 110002801754

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Year: 1998
 Gepaid: CAD982368946
 Contact: Not reported
 Telephone: 0000000000
 Mailing Name: Not reported
 Mailing Address: 2717 PECK RD # N
 Mailing City,St,Zip: EL MONTE, CA 917332434
 Gen County: Not reported
 TSD EPA ID: CAT000613893
 TSD County: Not reported
 Waste Category: Aqueous solution with total organic residues less than 10 percent
 Disposal Method: Transfer Station
 Tons: .0917
 Facility County: Los Angeles

N69
ESE
1/8-1/4
0.222 mi.
1171 ft.

CARBURETOR CENTER
2717 PECK RD
EL MONTE, CA 91733

WIP S106765207
N/A

Site 5 of 6 in cluster N

Relative:
Higher

WIP:
 Region: 4
 File Number: 107.0075
File Status: Historical
 Staff: BPONEK
 Facility Suite: Not reported

Actual:
273 ft.

J70
SSW
1/8-1/4
0.222 mi.
1171 ft.

M & M AUTO REPAIR
2607 N TYLER
EL MONTE, CA

RCRA-SQG 1000122656
FINDS CAD063836019
HAZNET

Site 4 of 4 in cluster J

Relative:
Lower

RCRA-SQG:
 Date form received by agency: 09/01/1996
 Facility name: M & M AUTO REPAIR
 Facility address: 2607 N TYLER
 EL MONTE, CA 91733
 EPA ID: CAD063836019
 Contact: Not reported
 Contact address: Not reported
 Not reported
 Contact country: Not reported

Actual:
267 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M & M AUTO REPAIR (Continued)

1000122656

Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 08/29/1985
Facility name: M & M AUTO REPAIR
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

M & M AUTO REPAIR (Continued)

1000122656

Registry ID: 110002653771

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

UORS (California - Used Oil Recycling System). California Integrated Waste Management Board (CIWMB) helps communities establish and promote convenient collection opportunities for used oil and used oil filters.

HAZNET:

Year: 1998
Gepaid: CAD063836019
Contact: MICHAEL & STEVEN MILLER
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 2607 TYLER AVE # N
Mailing City,St,Zip: EL MONTE, CA 917330000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: .0625
Facility County: Los Angeles

N71
ESE
1/8-1/4
0.224 mi.
1183 ft.

2711 PECK RD
SOUTH EL MONTE, CA 91733

Site 6 of 6 in cluster N

EDR US Hist Auto Stat 1015380161
N/A

Relative:
Higher

EDR Historical Auto Stations:

Name: FRED'S AUTO ELECTRIC
Year: 2004
Address: 2711 PECK RD

Name: AUTO CLINIC 1
Year: 2010
Address: 2711 PECK RD

Name: AUTO CLINIC 1
Year: 2011
Address: 2711 PECK RD

Name: AUTO CLINIC 1
Year: 2012

Actual:
273 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

(Continued)

1015380161

Address: 2711 PECK RD

K72 **B&T METAL CUTTING SERVICE, LTD**
SSW **10942 ELLIOTT AVE**
1/8-1/4 **EL MONTE, CA 91733**
0.235 mi.
1242 ft. **Site 2 of 2 in cluster K**

WIP **S106765198**
N/A

Relative: **WIP:**
Lower Region: 4
 File Number: 107.0047
Actual: **File Status:** **Historical**
266 ft. Staff: DKOO
 Facility Suite: Not reported

O73 **ARVAN INC.**
SSW **10930 ELLIOTT AVE**
1/8-1/4 **EL MONTE, CA 91733**
0.246 mi.
1299 ft. **Site 1 of 2 in cluster O**

WIP **S106765195**
N/A

Relative: **WIP:**
Lower Region: 4
 File Number: 107.0040
Actual: **File Status:** **Historical**
266 ft. Staff: GMM
 Facility Suite: Not reported

O74 **CAD-WELL PLATING CO. INC.**
SSW **10925 SCHMIDT RD.**
1/4-1/2 **EL MONTE, CA 91733**
0.280 mi.
1481 ft. **Site 2 of 2 in cluster O**

SLIC **S106484575**
SWEEPS UST **N/A**
WIP

Relative: **SLIC:**
Lower Region: STATE
 Facility Status: **Open - Site Assessment**
Actual: Status Date: 11/30/1987
265 ft. Global Id: SL603798764
 Lead Agency: LOS ANGELES RWQCB (REGION 4)
 Lead Agency Case Number: Not reported
 Latitude: 34.057317
 Longitude: -118.0361
 Case Type: Cleanup Program Site
 Case Worker: RE
 Local Agency: Not reported
 RB Case Number: 107.0688
 File Location: Not reported
 Potential Media Affected: Aquifer used for drinking water supply
 Potential Contaminants of Concern: Not reported
 Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CAD-WELL PLATING CO. INC. (Continued)

S106484575

SWEEPS UST:

Status: Active
Comp Number: 11241
Number: 9
Board Of Equalization: 44-009186
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-011241-000001
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 2

Status: Active
Comp Number: 11241
Number: 9
Board Of Equalization: 44-009186
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-011241-000002
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

WIP:

Region: 4
File Number: 107.0463
File Status: Historical
Staff: KELLIOTT
Facility Suite: Not reported

Region: 4
File Number: 107.0688
File Status: Active
Staff: REHE
Facility Suite: Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

75
South
1/4-1/2
0.295 mi.
1558 ft.

WILTON INK COMPANY
2518 TYLER AVE. #1/2
EL MONTE, CA 91733

SLIC S106484625
WIP N/A

Relative:
Lower

SLIC:
 Region: STATE
Facility Status: Open - Site Assessment
 Status Date: 06/06/1990
 Global Id: SL603798815
 Lead Agency: LOS ANGELES RWQCB (REGION 4)
 Lead Agency Case Number: Not reported
 Latitude: 34.057297
 Longitude: -118.034681
 Case Type: Cleanup Program Site
 Case Worker: GJH
 Local Agency: Not reported
 RB Case Number: 107.1687
 File Location: Not reported
 Potential Media Affected: Aquifer used for drinking water supply
 Potential Contaminants of Concern: Not reported
 Site History: Not reported

Actual:
266 ft.

[Click here to access the California GeoTracker records for this facility:](#)

WIP:
 Region: 4
 File Number: 107.1553
File Status: Historical
 Staff: KELLIOTT
 Facility Suite: Not reported

P76
SSW
1/4-1/2
0.318 mi.
1678 ft.

JANSEN IRON WORKS, INC.
10937 SCHMIDT RD
EL MONTE, CA 91733
Site 1 of 3 in cluster P

SLIC U001569471
HIST UST N/A
WIP
EMI

Relative:
Lower

SLIC:
 Region: STATE
Facility Status: Completed - Case Closed
 Status Date: 03/17/1995
 Global Id: SL603798719
 Lead Agency: LOS ANGELES RWQCB (REGION 4)
 Lead Agency Case Number: Not reported
 Latitude: 34.057317
 Longitude: -118.0361
 Case Type: Cleanup Program Site
 Case Worker: COR
 Local Agency: Not reported
 RB Case Number: 107.0195
 File Location: Not reported
 Potential Media Affected: Aquifer used for drinking water supply
 Potential Contaminants of Concern: Not reported
 Site History: Not reported

Actual:
265 ft.

[Click here to access the California GeoTracker records for this facility:](#)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JANSEN IRON WORKS, INC. (Continued)

U001569471

HIST UST:

Region: STATE
Facility ID: 00000060992
Facility Type: Other
Other Type: WROUGHT IRON WORKS
Total Tanks: 0001
Contact Name: KEVIN D. HAMBLIN
Telephone: 8184440277
Owner Name: JANSEN IRON WORKS, INC.
Owner Address: 10937 SCHMIDT ROAD
Owner City,St,Zip: EL MONTE, CA 91733

Tank Num: 001
Container Num: 1
Year Installed: 1981
Tank Capacity: 00000200
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

WIP:

Region: 4
File Number: 107.0195
File Status: Active
Staff: CORTEZ
Facility Suite: Not reported

EMI:

Year: 1987
County Code: 19
Air Basin: SC
Facility ID: 43995
Air District Name: SC
SIC Code: 3443
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1990
County Code: 19
Air Basin: SC
Facility ID: 43995
Air District Name: SC
SIC Code: 3446
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

JANSEN IRON WORKS, INC. (Continued)

U001569471

Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

P77
SSW
1/4-1/2
0.321 mi.
1693 ft.

CENTRAL PLATING CO.
10930 SCHMIDT RD
EL MONTE, CA 91730

LA Co. Site Mitigation
WIP
ENVIROSTOR
WDS

S106102761
N/A

Site 2 of 3 in cluster P

Relative:
Lower

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0000390
Jurisdiction: County
Case ID: RO0001391
Abated: Yes
Assigned To: Kim Clark
Entered Date: 10/06/2011

Actual:
265 ft.

WIP:
Region: 4
File Number: 107.0462
File Status: Historical
Staff: UNIDENTIFIED
Facility Suite: Not reported

ENVIROSTOR:

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Facility ID: 71002303
Site Code: Not reported
Assembly: 48
Senate: 22
Special Program: Not reported
Status: Refer: Other Agency
Status Date: Not reported
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.05701
Longitude: -118.0370
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD009559139

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL PLATING CO. (Continued)

S106102761

Alias Type: EPA Identification Number
Alias Name: 110002637031
Alias Type: EPA (FRS #)
Alias Name: 71002303
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Non-Submittal
Completed Date: 01/19/2001
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CA WDS:

Facility ID: 4 19I010378
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 6264423530
Facility Contact: Michael Amaya
Agency Name: CENTRAL PLATING CO.
Agency Address: Not reported
Agency City,St,Zip: 0
Agency Contact: Not reported
Agency Telephone: Not reported
Agency Type: Private
SIC Code: 3471
SIC Code 2: Not reported
Primary Waste: Stormwater Runoff
Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CENTRAL PLATING CO. (Continued)

S106102761

Complexity: considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

P78
SSW
1/4-1/2
0.321 mi.
1696 ft.

JANSEN ORNAMENTAL SUPPLY CO.
10926 SCHMIDT RD.
EL MONTE, CA 91733
Site 3 of 3 in cluster P

SLIC **S106484531**
WIP **N/A**

Relative:
Lower

SLIC:

Region: STATE
Facility Status: Open - Site Assessment

Actual:
265 ft.

Status Date: 01/12/1987
Global Id: SL603798715
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number: Not reported
Latitude: 34.057317
Longitude: -118.0361
Case Type: Cleanup Program Site
Case Worker: COR
Local Agency: Not reported
RB Case Number: 107.0159
File Location: Not reported
Potential Media Affected: Aquifer used for drinking water supply
Potential Contaminants of Concern: Not reported
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

WIP:

Region: 4
File Number: 107.0159
File Status: Active
Staff: CORTEZ
Facility Suite: Not reported

Q79
West
1/4-1/2
0.327 mi.
1724 ft.

U-HAUL COMPANY #713-049
10704 GARVEY
EL MONTE, CA 91733
Site 1 of 4 in cluster Q

HIST CORTESE **1000159955**
N/A

Relative:
Lower

CORTESE:

Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-09214

Actual:
268 ft.

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

Q80 **U-HAUL COMPANY #713-049**
West **10704 GARVEY AVE E**
1/4-1/2 **EL MONTE, CA 91731**
0.328 mi.
1733 ft. **Site 2 of 4 in cluster Q**

LUST **S103282070**
 N/A

Relative:
Lower

LUST:

Actual:
268 ft.

Region: STATE
 Global Id: T0603704788
 Latitude: 34.06241
 Longitude: -118.041125
 Case Type: LUST Cleanup Site
 Status: Completed - Case Closed
 Status Date: 08/25/1997
 Lead Agency: LOS ANGELES COUNTY
 Case Worker: JOA
 Local Agency: LOS ANGELES COUNTY
 RB Case Number: R-09214
 LOC Case Number: Not reported
 File Location: Not reported
 Potential Media Affect: Soil
 Potential Contaminants of Concern: Aviation
 Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0603704788
 Contact Type: Regional Board Caseworker
 Contact Name: YUE RONG
 Organization Name: LOS ANGELES RWQCB (REGION 4)
 Address: 320 W. 4TH ST., SUITE 200
 City: Los Angeles
 Email: yrong@waterboards.ca.gov
 Phone Number: Not reported

Global Id: T0603704788
 Contact Type: Local Agency Caseworker
 Contact Name: JOHN AWUJO
 Organization Name: LOS ANGELES COUNTY
 Address: 900 S FREMONT AVE
 City: ALHAMBRA
 Email: jawujo@dpw.lacounty.gov
 Phone Number: 6264583507

Regulatory Activities:

Global Id: T0603704788
 Action Type: Other
 Date: 01/01/1950
 Action: Leak Reported

LUST REG 4:

Region: 4
 Regional Board: 04
 County: Los Angeles
 Facility Id: R-09214
 Status: Case Closed
 Substance: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

U-HAUL COMPANY #713-049 (Continued)

S103282070

Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603704788
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak First Reported: 8/25/1997
Date Leak Record Entered: 3/19/1998
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 8/25/1997
Date the Case was Closed: 8/25/1997
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 2005.4808215681022548217971868
Source of Cleanup Funding: Not reported
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: AMERCO REAL ESTATE
RP Address: 2721 N. CENTRAL AVE. STE 700, FHOENIX AZ 85007
Program: LUST
Lat/Long: 34.0626559 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

81
East
1/4-1/2
0.373 mi.
1970 ft.

D & S AUTO SALES
11519 GARVEY
EL MONTE, CA 91732

HIST CORTESE **S102428574**
LUST **N/A**

Relative:
Higher

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-14308

Actual:
280 ft.

LUST:
Region: STATE
Global Id: T0603704151
Latitude: 34.063072
Longitude: -118.027231
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/22/1996
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-14308
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0603704151
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603704151
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Regulatory Activities:

Global Id: T0603704151
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603704151
Action Type: Other

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

D & S AUTO SALES (Continued)

S102428574

Date: 01/01/1950
 Action: Leak Reported

 Global Id: T0603704151
 Action Type: Other
 Date: 01/01/1950
 Action: Leak Stopped

LUST REG 4:

Region: 4
 Regional Board: 04
 County: Los Angeles
 Facility Id: I-14308
 Status: Case Closed
 Substance: Diesel
 Substance Quantity: Not reported
 Local Case No: Not reported
 Case Type: Soil
 Abatement Method Used at the Site: Not reported
 Global ID: T0603704151
 W Global ID: Not reported
 Staff: UNK
 Local Agency: 19000
 Cross Street: MEEKER RD
 Enforcement Type: Not reported
 Date Leak Discovered: 12/20/1994
 Date Leak First Reported: 12/20/1990
 Date Leak Record Entered: 3/25/1996
 Date Confirmation Began: Not reported
 Date Leak Stopped: 12/20/1994
 Date Case Last Changed on Database: 12/27/1994
 Date the Case was Closed: 7/22/1996
 How Leak Discovered: Tank Closure
 How Leak Stopped: Not reported
 Cause of Leak: Not reported
 Leak Source: Not reported
 Operator: Not reported
 Water System: Not reported
 Well Name: Not reported
 Approx. Dist To Production Well (ft): 2402.6652659880564780627290473
 Source of Cleanup Funding: Not reported
 Preliminary Site Assessment Workplan Submitted: Not reported
 Preliminary Site Assessment Began: Not reported
 Pollution Characterization Began: Not reported
 Remediation Plan Submitted: Not reported
 Remedial Action Underway: Not reported
 Post Remedial Action Monitoring Began: Not reported
 Enforcement Action Date: Not reported
 Historical Max MTBE Date: Not reported
 Hist Max MTBE Conc in Groundwater: Not reported
 Hist Max MTBE Conc in Soil: Not reported
 Significant Interim Remedial Action Taken: Not reported
 GW Qualifier: Not reported
 Soil Qualifier: Not reported
 Organization: Not reported
 Owner Contact: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D & S AUTO SALES (Continued)

S102428574

Responsible Party: D & S AUTO SALES
RP Address: 11519 GARVEY AVE E, EL MONTE 91732
Program: LUST
Lat/Long: 34.0629768 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

Q82
West
1/4-1/2
0.378 mi.
1998 ft.

RELIABLE LUMBER INC
10613 GARVEY
EL MONTE, CA 91733

HIST CORTESE **S102430643**
N/A

Site 3 of 4 in cluster Q

Relative:
Lower

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: R-09127

Actual:
268 ft.

Q83
West
1/4-1/2
0.378 mi.
1998 ft.

RELIABLE LUMBER INC
10613 GARVEY AVE
EL MONTE, CA

LUST **S102061820**
SWEEPS UST **N/A**
LOS ANGELES CO. HMS

Site 4 of 4 in cluster Q

Relative:
Lower

LUST:
Region: STATE
Global Id: T0603704783
Latitude: 34.063059
Longitude: -118.042162
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/30/1985
Lead Agency: LOS ANGELES COUNTY
Case Worker: Not reported
Local Agency: LOS ANGELES COUNTY
RB Case Number: R-09127
LOC Case Number: 9326-9127
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Actual:
268 ft.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0603704783
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RELIABLE LUMBER INC (Continued)

S102061820

Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603704783
Contact Type: Local Agency Caseworker
Contact Name: JERRY WONG
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: Not reported
Phone Number: Not reported

Regulatory Activities:

Global Id: T0603704783
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603704783
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603704783
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

LUST REG 4:

Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: R-09127
Status: Leak being confirmed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603704783
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: 4/15/1985
Date Leak First Reported: 4/15/1985
Date Leak Record Entered: 12/31/1986
Date Confirmation Began: 4/15/1985
Date Leak Stopped: 4/15/1985
Date Case Last Changed on Database: 8/19/1987
Date the Case was Closed: Not reported
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: UNK

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RELIABLE LUMBER INC (Continued)

S102061820

Leak Source: UNK
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 2200.4792485310514355418525612
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: RELIABLE LUMBER, INC.
RP Address: P.O.BOX 545, ROSEMEAD, CA 91770
Program: LUST
Lat/Long: 34.0628629 / -1
Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: OLD CASE #000230

SWEEPS UST:

Status: Active
Comp Number: 9127
Number: 9
Board Of Equalization: Not reported
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 009326-009127
Facility Type: Not reported
Facility Status: Removed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RELIABLE LUMBER INC (Continued)

S102061820

Area: 3C
Permit Number: Not reported
Permit Status: Not reported

R84
West
1/4-1/2
0.387 mi.
2043 ft.

RICHMORE DISTRIBUTING CO
10610 GARVEY
EL MONTE, CA 91732
Site 1 of 2 in cluster R

HIST CORTESE
LUST **S102435865**
N/A

Relative:
Lower

CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: I-21760

Actual:
268 ft.

LUST:

Region: STATE
Global Id: T0603704481
Latitude: 34.062483
Longitude: -118.04207
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/26/1996
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES COUNTY
RB Case Number: I-21760
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T0603704481
Contact Type: Local Agency Caseworker
Contact Name: JOHN AWUJO
Organization Name: LOS ANGELES COUNTY
Address: 900 S FREMONT AVE
City: ALHAMBRA
Email: jawujo@dpw.lacounty.gov
Phone Number: 6264583507

Global Id: T0603704481
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Regulatory Activities:

Global Id: T0603704481

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RICHMORE DISTRIBUTING CO (Continued)

S102435865

Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: I-21760
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603704481
W Global ID: Not reported
Staff: UNK
Local Agency: 19000
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak First Reported: 7/5/1989
Date Leak Record Entered: 1/23/1991
Date Confirmation Began: Not reported
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 9/30/1996
Date the Case was Closed: 7/26/1996
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: FORMERLY TEXACO
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 2251.5671583632270073089983331
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: 7/5/1989
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: RICHMORE DISTRIBUTING CO INC
RP Address: 10523 PENFIELD AVE, CHATSWORTH CA 91311
Program: LUST
Lat/Long: 34.062643 / -1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RICHMORE DISTRIBUTING CO (Continued)

S102435865

Local Agency Staff: Not reported
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: Not reported

R85
West
1/4-1/2
0.387 mi.
2043 ft.

ULTRAMAR STATION
10610 E GARVEY AVE
EL MONTE, CA

LUST
SWEEPS UST
LOS ANGELES CO. HMS

S102061819
N/A

Site 2 of 2 in cluster R

Relative:
Lower

LUST:

Actual:
268 ft.

Region: STATE
Global Id: T10000004481
Latitude: 34.062481
Longitude: -118.042074
Case Type: LUST Cleanup Site
Status: Open - Inactive
Status Date: 12/11/2012
Lead Agency: SWRCB
Case Worker: MC
Local Agency: LOS ANGELES COUNTY
RB Case Number: Not reported
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Not reported
Potential Contaminants of Concern: Benzene, Diesel, Ethylbenzene, Gasoline, MTBE / TBA / Other Fuel
Oxygenates, Toluene, Waste Oil / Motor / Hydraulic / Lubricating,
Xylene
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id: T10000004481
Contact Type: Local Agency Caseworker
Contact Name: KATTYA BATRES RINZE
Organization Name: LOS ANGELES COUNTY
Address: 900 SOUTH FREMONT AVE
City: ALHAMBRA
Email: gbatres@dpw.lacounty.gov
Phone Number: Not reported

Global Id: T10000004481
Contact Type: Regional Board Caseworker
Contact Name: MATTHEW COHEN
Organization Name: SWRCB
Address: 1001 I Street
City: SACRAMENTO
Email: mcohen@waterboards.ca.gov
Phone Number: 9163415751

Regulatory Activities:

Global Id: T10000004481
Action Type: Other

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ULTRAMAR STATION (Continued)

S102061819

Date: 01/01/1950
Action: Leak Stopped

Global Id: T10000004481
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T10000004481
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T10000004481
Action Type: ENFORCEMENT
Date: 06/26/2013
Action: Referral to Regional Board

SWEEPS UST:

Status: Active
Comp Number: 14507
Number: 9
Board Of Equalization: 44-010429
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-014507-000001
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 4

Status: Active
Comp Number: 14507
Number: 9
Board Of Equalization: 44-010429
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-014507-000002
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 14507
Number: 9

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ULTRAMAR STATION (Continued)

S102061819

Board Of Equalization: 44-010429
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-014507-000003
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 14507
Number: 9
Board Of Equalization: 44-010429
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-014507-000004
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 016456-021760
Facility Type: T0
Facility Status: Closed
Area: 3C
Permit Number: 0000T5670
Permit Status: Closed

Region: LA
Facility Id: 016456-025417
Facility Type: T0
Facility Status: Permit
Area: 3C
Permit Number: 000209187
Permit Status: Permit

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

86
South
1/4-1/2
0.499 mi.
2635 ft.

P AND T METALS INC
2213 N TYLER AVE
SOUTH EL MONTE, CA 91733

NPDES S106669039
SWRCY N/A
WIP

Relative:
Lower

NPDES:

Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 4
Regulatory Measure Id: 425949
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 4 191023593
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 04/09/2012
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: P & T Metals
Discharge Address: 2213 N Tyler Avenue
Discharge City: So El Monte
Discharge State: California
Discharge Zip: 91733

Actual:
263 ft.

SWRCY:

Reg Id: 19158
Cert Id: RC0048
Mailing Address: 2213 N Tyler Ave
Mailing City: South El Monte
Mailing State: CA
Mailing Zip Code: 91733
Website: Not reported
Phone Number: Not reported
Grand Father: N
Rural: N
Operation Begin Date: 08/18/1987
Aluminium: Y
Glass: Y
Plastic: Y
Bimetal: Y
Agency: N/A
Monday Hours Of Operation: 8:00 am - 4:45 pm
Tuesday Hours Of Operation: 8:00 am - 4:45 pm
Wednesday Hours Of Operation: 8:00 am - 4:45 pm
Thursday Hours Of Operation: 8:00 am - 4:45 pm
Friday Hours Of Operation: 8:00 am - 4:45 pm
Saturday Hours Of Operation: 7:00 am - 1:00 pm
Sunday Hours Of Operation: CLOSED
Cert Status: Operational
Organization ID: 19158
Organization Name: P and T Metals Inc
Agency Reg ID: N/A
Operation End Date: Not reported

WIP:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

P AND T METALS INC (Continued)

S106669039

Region: 4
File Number: 107.0412
File Status: Historical
Staff: CCC
Facility Suite: Not reported

87
WNW
1/2-1
0.502 mi.
2648 ft.

SHINING STAR PRESCHOOL
3215, 3221 & 3227 SANTA ANITA AVENUE
EL MONTE, CA 91731

SCH S103883829
ENVIROSTOR N/A

Relative:
Higher

SCH:

Actual:
275 ft.

Facility ID: 19990020
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: .75
National Priorities List: NO
Cleanup Oversight Agencies: DTSC
Lead Agency: DTSC
Lead Agency Description: * DTSC
Project Manager: Not reported
Supervisor: * Sharon Fair
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 300754
Assembly: 49
Senate: 22
Special Program Status: Not reported
Status: No Further Action
Status Date: 07/01/1999
Restricted Use: NO
Funding: School District
Latitude: 34.06639
Longitude: -118.0425
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: No Contaminants found
Potential Description: NMA
Alias Name: SHINING STAR PRESCHOOL
Alias Type: Alternate Name
Alias Name: SHINING STAR PRESCHOOL
Alias Type: Alternate Name
Alias Name: 300754
Alias Type: Project Code (Site Code)
Alias Name: 19990020
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 05/21/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SHINING STAR PRESCHOOL (Continued)

S103883829

Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/21/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 07/01/1999
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:

Site Type: School Investigation
Site Type Detailed: School
Acres: .75
NPL: NO
Regulatory Agencies: DTSC
Lead Agency: DTSC
Program Manager: Not reported
Supervisor: * Sharon Fair
Division Branch: Southern California Schools & Brownfields Outreach
Facility ID: 19990020
Site Code: 300754
Assembly: 49
Senate: 22
Special Program: Not reported
Status: No Further Action
Status Date: 07/01/1999
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: School District
Latitude: 34.06639
Longitude: -118.0425
APN: NONE SPECIFIED
Past Use: NONE
Potential COC: NONE SPECIFIED, No Contaminants found
Confirmed COC: NONE SPECIFIED, No Contaminants found, No Contaminants found
Potential Description: NMA
Alias Name: SHINING STAR PRESCHOOL
Alias Type: Alternate Name
Alias Name: SHINING STAR PRESCHOOL
Alias Type: Alternate Name
Alias Name: 300754
Alias Type: Project Code (Site Code)
Alias Name: 19990020
Alias Type: Envirostor ID Number

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SHINING STAR PRESCHOOL (Continued)

S103883829

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Voluntary Cleanup Agreement
 Completed Date: 05/21/1999
 Comments: Not reported

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Cost Recovery Closeout Memo
 Completed Date: 07/21/1999
 Comments: Not reported

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Preliminary Endangerment Assessment Report
 Completed Date: 07/01/1999
 Comments: Not reported

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

88
ESE
1/2-1
0.525 mi.
2773 ft.

HYTONE CLEANERS
2702 MOUNTAIN VIEW RD
EL MONTE, CA 91732

Cortese
DRYCLEANERS
WIP
RESPONSE
ENVIROSTOR

S106166707
N/A

Relative:
Higher

CORTESE:
 Region: CORTESE
 Envirostor Id: 60000629
 Site/Facility Type: STATE RESPONSE
 Cleanup Status: ACTIVE
 Status Date: 05/01/2007
 Site Code: 301319
 Latitude: 34.059523
 Longitude: -118.02456
 Owner: Not reported
 Enf Type: Not reported
 Swat R: Not reported
 Flag: export
 Order No: Not reported
 Waste Discharge System No: Not reported
 Effective Date: Not reported
 Region 2: Not reported
 WID Id: Not reported
 Solid Waste Id No: Not reported
 Waste Management Uit Name: Not reported

Actual:
277 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYTONE CLEANERS (Continued)

S106166707

DRYCLEANERS:

EPA Id: CAD981999543
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 03/01/1988
Facility Active: No
Inactive Date: 06/30/2007
Facility Addr2: Not reported
Owner Name: HYTONE CLEANERS
Owner Address: 2702 MTN VIEW RD
Owner Address 2: Not reported
Owner Telephone: 6264441660
Contact Name: DAVID WANG
Contact Address: 2702 MOUNTAIN VIEW RD
Contact Address 2: Not reported
Contact Telephone: 6266279549

EPA Id: CAL000335307
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 08/08/2008
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Owner Name: LOI HUYNH
Owner Address: 4521 DUBONNET AVE
Owner Address 2: Not reported
Owner Telephone: 6264510728
Contact Name: LOI HUYNH
Contact Address: 2702 MOUNTAIN VIEW RD
Contact Address 2: Not reported
Contact Telephone: 6264441660

WIP:

Region: 4
File Number: 107.0179
File Status: Active
Staff: CORTEZ
Facility Suite: Not reported

RESPONSE:

Facility ID: 60000629
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 0.49
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Peter Ruttan
Supervisor: Rizgar Ghazi
Division Branch: Engineering & Special Projects

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYTONE CLEANERS (Continued)

S106166707

Site Code: 301319
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 48
Senate: 22
Special Program Status: Not reported
Status: Active
Status Date: 05/01/2007
Restricted Use: NO
Funding: Responsible Party
Latitude: 34.05952
Longitude: -118.0245
APN: 8106024012
Past Use: DRY CLEANING
Potential COC: Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethane, 1,2-Dichloroethylene (cis
Confirmed COC: Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethane, 1,2-Dichloroethylene (cis, NONE SPECIFIED
Potential Description: OTH, SOIL
Alias Name: 8106024012
Alias Type: APN
Alias Name: 110033615050
Alias Type: EPA (FRS #)
Alias Name: SL603792730
Alias Type: GeoTracker Global ID
Alias Name: 301319
Alias Type: Project Code (Site Code)
Alias Name: 60000629
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 11/09/2012
Comments: Prop 65 Notification - Sent
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 05/24/2013
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 12/12/2000
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Tank Removal Report
Completed Date: 09/04/2001
Comments: Contamination Found - Vertical and Lateral Extent not defined
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 02/28/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYTONE CLEANERS (Continued)

S106166707

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 09/04/2001
Comments: Phase II Documents-Well Construction Reports

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Community Profile
Schedule Due Date: 06/30/2013
Schedule Revised Date: 10/15/2013

ENVIROSTOR:

Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 0.49
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Peter Ruttan
Supervisor: Rizgar Ghazi
Division Branch: Engineering & Special Projects
Facility ID: 60000629
Site Code: 301319
Assembly: 48
Senate: 22
Special Program: Not reported
Status: Active
Status Date: 05/01/2007
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.05952
Longitude: -118.0245
APN: 8106024012
Past Use: DRY CLEANING
Potential COC: Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethane, 1,2-Dichloroethylene (cis
Confirmed COC: Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,1-Dichloroethane, 1,2-Dichloroethylene (cis, NONE SPECIFIED
Potential Description: OTH, SOIL
Alias Name: 8106024012
Alias Type: APN
Alias Name: 110033615050
Alias Type: EPA (FRS #)
Alias Name: SL603792730
Alias Type: GeoTracker Global ID
Alias Name: 301319
Alias Type: Project Code (Site Code)
Alias Name: 60000629
Alias Type: Envirostor ID Number

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HYTONE CLEANERS (Continued)

S106166707

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Notice
Completed Date: 11/09/2012
Comments: Prop 65 Notification - Sent

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)
Completed Date: 05/24/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 12/12/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Tank Removal Report
Completed Date: 09/04/2001
Comments: Contamination Found - Vertical and Lateral Extent not defined

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 02/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Well Completion Report
Completed Date: 09/04/2001
Comments: Phase II Documents-Well Construction Reports

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Community Profile
Schedule Due Date: 06/30/2013
Schedule Revised Date: 10/15/2013

89
South
1/2-1
0.674 mi.
3558 ft.

ZACKY FOODS CO
2044 N TYLER AVE
SOUTH EL MONTE, CA

SWEEPS UST U002279588
LA Co. Site Mitigation N/A
LOS ANGELES CO. HMS
ENVIROSTOR

Relative:
Lower
Actual:
258 ft.

SWEEPS UST:
Status: Active
Comp Number: 4827
Number: 9

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZACKY FOODS CO (Continued)

U002279588

Board Of Equalization: 44-007854
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-004827-000001
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: 4

Status: Active
Comp Number: 4827
Number: 9
Board Of Equalization: 44-007854
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-004827-000002
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 4827
Number: 9
Board Of Equalization: 44-007854
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 19-000-004827-000003
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Active
Comp Number: 4827
Number: 9
Board Of Equalization: 44-007854
Referral Date: 06-30-89
Action Date: Not reported
Created Date: 06-30-89
Tank Status: A
Owner Tank Id: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZACKY FOODS CO (Continued)

U002279588

Swrcb Tank Id: 19-000-004827-000004
Actv Date: 06-30-89
Capacity: Not reported
Tank Use: UNKNOWN
Stg: W
Content: Not reported
Number Of Tanks: Not reported

LA Co. Site Mitigation:

Facility ID: FA0026715
Site ID: SD0010031
Jurisdiction: County
Case ID: RO0010031
Abated: Yes
Assigned To: GB
Entered Date: 05/11/2004

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 004649-I04827
Facility Type: I01
Facility Status: Permit
Area: 3U
Permit Number: 000005619
Permit Status: Closed

Region: LA
Facility Id: 004649-004827
Facility Type: T0
Facility Status: Permit
Area: 3U
Permit Number: 00000204T
Permit Status: Closed

ENVIROSTOR:

Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 19200022
Site Code: Not reported
Assembly: 49
Senate: 30
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 10/09/2001
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 0
Longitude: 0

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

ZACKY FOODS CO (Continued)

U002279588

APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: 19200022
 Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
 Completed Sub Area Name: Not reported
 Completed Document Type: Not reported
 Completed Date: Not reported
 Comments: Not reported

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

90
North
1/2-1
0.674 mi.
3558 ft.

SAN GABRIEL GROUNDWATER BASIN (1-4)*
10-20 MI E OF L.A. ON HWY 10 IN AZUSA
EL MONTE, CA 91732

HIST Cal-Sites S101272771
Cortese N/A
ENVIROSTOR

Relative:
Higher

Calsite:

Actual:
284 ft.

Facility ID: 19990006
 Region: 3
 Region Name: GLENDALE
 Branch: SB
 Branch Name: SO CAL - CYPRESS
 File Name: Not reported
 State Senate District: 01011983
 Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
 Status Name: ANNUAL WORKPLAN - ACTIVE SITE
 Lead Agency: EPA
 Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
 Facility Type: NPJF
 Type Name: NPL SITE, JOINT STATE/FEDERAL-FUNDED
 NPL: Listed
 SIC Code: 99
 SIC Name: NONCLASSIFIABLE ESTABLISHMENTS
 Access: Not reported
 Cortese: Not reported
 Hazardous Ranking Score: Not reported
 Date Site Hazard Ranked: Not reported
 Groundwater Contamination: Confirmed
 Staff Member Responsible for Site: JSPISZMA
 Supervisor Responsible for Site: Not reported
 Region Water Control Board: LA
 Region Water Control Board Name: LOS ANGELES
 Lat/Long Direction: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 49
State Senate District Code: 24
Facility ID: 19990006
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: B
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 03311984
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: B
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 05311984
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: C

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 07301988
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: C
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 09301988
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: DES
Activity Name: DESIGN
AWP Code: B
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 01311989
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	FRA
Activity Name:	FINAL REMEDIAL ACTION
AWP Code:	B
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05301990
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	AW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04301991
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: DES
Activity Name: DESIGN
AWP Code: C
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 07311991
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: FRA
Activity Name: FINAL REMEDIAL ACTION
AWP Code: AWIMP
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 01301992
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: OVALL
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Comments Date:	07211992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	WNNMW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09151992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	WN
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09161992
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	WNMW
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03311993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	WNROD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	03311993
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: BD
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 06301993
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: DES
Activity Name: DESIGN
AWP Code: BDPRD
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 10311993
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: BPROD
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 03311994
Est Person-Yrs to complete: 0
Estimated Size: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: CEQA
Activity Name: CEQA INCLUDING NEGATIVE DECS
AWP Code: COM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 06151994
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: COM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 06151994
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	COM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12151994
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	PV
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	05301997
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	COM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 02121996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RMDL
Activity Name: REMEDIAL ACTION (RAP REQUIRED)
AWP Code: BP-B6
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 02182004
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: DES
Activity Name: DESIGN
AWP Code: BP-B6
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 03312003
Est Person-Yrs to complete: 0.32000
Estimated Size: L
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE

Map ID
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Database(s)

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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RAP
Activity Name:	REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code:	PV
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09301998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	PV
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RMDL
Activity Name: REMEDIAL ACTION (RAP REQUIRED)
AWP Code: PV
Proposed Budget: 0
AWP Completion Date: 09302006
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: WN
Proposed Budget: 1640000
AWP Completion Date: 06302032
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: L
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: RICHW
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported

Map ID
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Comments Date: 12311999
Est Person-Yrs to complete: 0
Estimated Size: L
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: EM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 04301998
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: EM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 06241999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported

Map ID
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MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	EM
Proposed Budget:	0
AWP Completion Date:	09302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RIFS
Activity Name:	REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code:	SEM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	04071999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: SEM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 09282000
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: WN
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 11101999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: DES
Activity Name: DESIGN
AWP Code: WN
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 03082001
Est Person-Yrs to complete: 0
Estimated Size: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: RMDL
Activity Name: REMEDIAL ACTION (RAP REQUIRED)
AWP Code: WNOU
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 09302003
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: ENFFU
Activity Name: ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code: SFSUB
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 06301998
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported

Map ID
Direction
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	SFARR
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06301998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	SFBD
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	12151998
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	SEM

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	EM
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	SFBP
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06301999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	SFCOM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	06301999
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	SEM
Proposed Budget:	0
AWP Completion Date:	09302006
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	BP-B5
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	DES
Activity Name:	DESIGN
AWP Code:	BP-AL
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	08082003
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	BP-B5
Proposed Budget:	0
AWP Completion Date:	09302005
Revised Due Date:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	RMDL
Activity Name:	REMEDIAL ACTION (RAP REQUIRED)
AWP Code:	BP-AL
Proposed Budget:	0
AWP Completion Date:	06302005
Revised Due Date:	Not reported
Comments Date:	10012004
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	THE GROUNDWATER REMEDIATION EXTRACTION RATE IS 7800 GPM.
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	PVSOF
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09142001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	ENFFU
Activity Name:	ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.
AWP Code:	EMSOF
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	10012001
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	OM
Activity Name:	OPERATION & MAINTENANCE
AWP Code:	BP-B6
Proposed Budget:	0
AWP Completion Date:	06302032
Revised Due Date:	Not reported
Comments Date:	Not reported
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: BP-AL
Proposed Budget: 0
AWP Completion Date: 06302032
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: BP-B5
Proposed Budget: 0
AWP Completion Date: 06302032
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: PRP
Activity Name: POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code: PV
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 09292000
Est Person-Yrs to complete: 0
Estimated Size: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: PRP
Activity Name: POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code: BP
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 05311997
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 19990006
Activity: PRP
Activity Name: POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code: EM
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 07312001
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	PRP
Activity Name:	POTENTIAL RESPONSIBLE PARTY SEARCH
AWP Code:	SEM
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02282002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	BP
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09172002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	BP

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	09302002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SUBOU
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	11052002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Facility ID:	19990006
Activity:	COST
Activity Name:	COST RECOVERY
AWP Code:	SUBOU
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	11052002
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	AWP
Definition of Status:	ANNUAL WORKPLAN - ACTIVE SITE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	EL MONTE AREA
Alternate City,St,Zip:	EL MONTE, CA 91732
Alternate Address:	10-20 MI E OF L.A. ON HWY 10 IN AZUSA
Alternate City,St,Zip:	EL MONTE, CA 91732
Background Info:	<p>The San Gabriel Valley Groundwater Basin is located approximately ten to twenty miles east of downtown Los Angeles in Los Angeles County. The Basin covers an area of approximately 167 square miles and represents 90% of the source of drinking water supply for over one million residents. The San Gabriel Basin also includes industrial and commercial sources as well as undeveloped areas.</p> <p>Not reported</p> <p>Forty-five different water purveyors extract groundwater in the Basin for use as municipal water supply. A number of additional commercial/industrial users also extract and use groundwater from the basin.</p> <p>Not reported</p> <p>In 1979, volatile organic compounds (VOCs) were discovered in the Baldwin Park area. Subsequent testing found that VOC contamination was widely distributed throughout the Basin, and were determined to pose a significant threat to the groundwater resources in the area.</p> <p>Not reported</p> <p>Contaminants of concern (COCs) originally included perchloroethylene (PCE), trichloroethylene (TCE), 1,2 dichloroethane (1,2 DCA), carbon tetrachloride (CTC). In 1997, perchlorate was discovered in the Baldwin Park area of the Basin. Since that time, 1,4-dioxane and N-nitrosodimethylamine (NDMA) have also been discovered in the groundwater of the basin. Perchlorate, NDMA and 1,4-dioxane have subsequently been added to the list of contaminants of concern.</p> <p>Not reported</p> <p>U.S. EPA believes that the source of this contamination initially stems from an increase in industrial activity during World War II, followed by rapid industrial and residential growth during the post-war period. Perchlorate is used in the manufacturing of solid rocket fuels. NDMA is associated with the production of liquid rocket fuel. 1,4-dioxane has been used as a stabilizer in chlorinated solvents.</p> <p>Not reported</p> <p>In 1984, U.S. EPA listed the San Gabriel Groundwater Basin on the National Priority List (NPL) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).</p> <p>Not reported</p> <p>U.S. EPA subsequently broke the site down into "operable units"</p>

Map ID
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Elevation

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Database(s)

EDR ID Number
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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

(OUs) to better focus investigative and cleanup efforts in the San Gabriel Groundwater Basin, as follows:

- o Richwood
- o Whittier Narrows
- o Suburban Water System/Bartolo Well Field
- o Baldwin Park
- o Puente Valley
- o El Monte
- o South El Monte
- o Alhambra

Not reported

For NPL sites, DTSC serves in a support role to U.S. EPA. In this capacity, DTSC provides in-depth review of data and other technical submissions, and must provide formal concurrence at each stage of the remedy selection process.

Not reported

DTSC is also responsible for assuring that state regulatory standards are met. In the case of a "fund lead" remedy, DTSC also has an obligation to pay 10% of the construction costs for the selected remedy. DTSC is also required to take over financial responsibility for operation and maintenance (O&M) of the remedy after a specified period of time (either one year or 10 years), depending on the type of remedy selected.

Not reported

CURRENT & PLANNED SITE ACTIVITIES:

Not reported

As of January 2003, U.S. EPA is conducting investigation and cleanup activities of the operable units (Baldwin Park, Whittier Narrows, Puente Valley, El Monte and South El Monte). U.S. EPA has also begun preliminary assessment of contamination in the Alhambra OU. A detailed discussion of current and planned activities at the five operable units is presented below:

Not reported

1. Whittier Narrows Operable Unit:

Not reported

The Whittier Narrows is an underground geological formation that consists primarily of stream deposited sediments which serve a channel to groundwater leaving the Basin. Most surface and groundwater leaving the San Gabriel Groundwater Basin flows naturally through the Whittier Narrows and discharges into the Central Groundwater Basin, located directly down gradient from Whittier Narrows.

Not reported

U.S. EPA's primary objective for creating the Whittier Narrows operable unit was to provide early warning should contaminants from the San Gabriel Basin pose a threat to the groundwater resources of the Central Groundwater Basin.

Not reported

In 1993, U.S. EPA issued a "no action" Record of Decision (ROD) for the Whittier Narrows OU which set up a groundwater monitoring program as the preferred alternative. In 1997, U.S. EPA found that VOCs in the Whittier Narrows monitoring wells had increased to concentrations approaching and/or in some cases, exceeding the maximum contaminant levels (MCLs) for VOCs. U.S. EPA subsequently made the decision to move forward with a fund-lead remedy for the Whittier Narrows operable unit.

Not reported

Map ID
Direction
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MAP FINDINGS

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Database(s)

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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

In November 1999, U.S. EPA amended the ROD and selected construction and operation of an 11,000 gallon per minute groundwater extraction and treatment as the preferred remedy. Groundwater was to be treated to drinking water standards and to be used to augment drinking water supplies.

Not reported

Design of the remedy was completed in March 2001. During the design process, DTSC made technical recommendations to U.S. EPA that will provide additional flexibility to the system and significantly lower the annual operations and maintenance costs.

Not reported

U.S. EPA initiated construction on the treatment plant in June 2001 and was essentially completed in May 2002. As of January 2003, U.S. EPA is in the process of finalizing a Memorandum of Agreement (MOA) with the City of Whittier to serve as operator of the plant for the first 10 years of operation. The California Department of Health Services is in the process of finalizing the drinking water permit necessary to re-use the treated water for drinking water supply.

Not reported

DTSC is contributing ten percent of the construction costs for was issued in September 1998. The selected remedy for the PVOU includes extraction, containment and treatment of contaminated groundwater in the shallow and intermediate zones at the mouth of Puente Valley.

Not reported

The ROD estimated that the remedy would cost something on the order of \$27.5 million dollars.

Not reported

U.S. EPA issued Special Notice letters to 56 potentially responsible parties (PRPs) in September 2000. RD/RA negotiations began in December 2000. A group of PRPs, lead by Northrup Grummon, will be performing the cleanup work in the intermediate zone. A second group of PRPs will be designing and implementing the remedy for the shallow zone.

Not reported

Since the ROD was issued in September 1988, both the shallow and intermediate plumes have spread. As of January 2003, U.S. EPA and the PRP groups are conducting additional site investigation activities aimed at defining the new plume boundaries in both the shallow and intermediate zones. As a result, the projected date for initiation of design phase for the intermediate zone remedy has been extended to April 2003.

Not reported

4. El Monte Operable Unit

Not reported

The El Monte OU includes portions of the cities of El Monte, Rosemead and Temple City. The El Monte OU was established to address the relatively high concentrations of volatile organic compounds (VOCs) which underlay the El Monte and South El Monte area.

Not reported

U.S. EPA issued its Record of Decision (ROD) for the El Monte OU in June 1999. The cleanup plan required that groundwater contamination in the shallow and deeper portion of the aquifer be contained so that further migration of contaminants is prevented.

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Not reported

However, the discovery of perchlorate and other emergent contaminants in the El Monte OU led U.S. EPA to issue an "Explanation of Significant Difference" (ESD) in August 2002. The ESD amends the original ROD by addressing cleanup of perchlorate, NDMA and 1,4-dioxane.

Not reported

5. South El Monte Operable Unit

Not reported

The South El Monte Operable Unit includes portions of the cities of South El Monte, El Monte and Rosemead. The South El Monte Operable Unit was established in order to further protect the Whittier Narrows portion of the aquifer from migration of contaminants from the upgradient of the basin. Sampling performed by U.S. EPA has indicated that some of the shallow zone contamination and much of the intermediate zone contamination migrate in a southerly direction towards the Whittier Narrows. However, a portion of the intermediate zone contamination flows in a westerly direction.

Not reported

U.S. EPA issued the Record of Decision (ROD) for the South El Monte Operable Unit in September 2000. The preferred alternative outlined in the ROD calls for containment of groundwater contaminated with VOCs in the intermediate zone in the western portion of the South El Monte OU. The ROD assumes the southerly component of the containment will migrate into the Whittier Narrows OU, where it will be captured and treated by the Whittier Narrows extraction and treatment plant.

Not reported

However, since issuance of the ROD, perchlorate, 1,4-Dioxane, NDMA and hexavalent chromium have also been detected in the South El Monte OU, leading to a need to update the cleanup plan for the South El Monte OU as well.

Not reported

In July 1999, a group of PRPs and the San Gabriel Basin Water Quality Authority (WQA) completed construction of an "early action" remedial project known as the South El Monte Shallow Barrier Project. The Shallow Barrier Project consists of a 1000 gallon per minute (gpm) extraction and treatment system which includes treatment modules for both peroxide and 1,4-dioxane.

Not reported

In February 2001, U.S. EPA sent special notice letters to a group of 67 PRPs, initiating the beginning of RD/RA Consent Decree Negotiations. However, perchlorate, 1,4-dioxane, NDMA, and hexavalent chromium have also been detected in the South El Monte OU.

Not reported

In July 2002, a group of PRPs and three local water purveyors entered into an agreement to fund portions of the remedy. The PRPs who are signatory for this agreement will provide funding to the water suppliers to construct additional extraction wells, wellhead treatment units and other system upgrades aimed at removal and treatment of perchlorate and 1,4-dioxane.

Not reported

6. Richwood Mutual Operable Unit

Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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The Richwood OU was established to address contamination in two supply wells operated by the Richwood Mutual Water Company. The Richwood Mutual Water Company was a small privately owned water company, which supplied drinking water to the 250 residents in the Richwood community in South El Monte.

Not reported

In May 1984, U.S. EPA issued a Record of Decision for the Richwood OU which mandated construction of a wellhead treatment plant to service the wells operated by the Richwood Mutual Water Company.

Not reported

In 1987, U.S. EPA designed and constructed a wellhead treatment plant for the two Richwood supply wells. DTSC contributed \$150,000 to pay its 10% cost share for construction of the facility required under the Comprehensive Environmental Response Liability and Compensation Act (CERCLA).

Not reported

Construction of the Richwood wellhead treatment system was completed in 1992, and authority for operation and maintenance (O&M) was formally transferred to DTSC in 1993. In 1994 DTSC made the decision to provide the Richwood community with an alternative source of drinking water after experiencing numerous difficulties in keeping the plant operational. DTSC purchased drinking water for the community until 1999, when the San Gabriel Valley Water Company was able to provide a permanent source of drinking water for the community.

Not reported

During the period between March 1994 and December 1999, DTSC provided approximately \$379,000 in state funds for the Richwood community. In 1998, DTSC was able to provide an additional \$185,000 in state funding to perform a variety of system upgrades so that transfer of responsibility for providing drinking water to the Richwood Community could be permanently taken over by the San Gabriel Valley Water Company. This transfer took place in December 1999. This action also effectively ended the Department's financial obligation under CERCLA for O&M of the remedy.

Not reported

PRP's were ever identified for the Richwood OU. Costs for remedial efforts at Richwood came out of funding set aside for orphan share sites.

Not reported

7. Suburban Operable Unit

Not reported

In October 1986, Suburban Water Systems (SWS) contacted EPA concerning contamination in their Bartolo well field in the Whittier Narrows area. The Bartolo wells serve a population of approximately 70,000 residents in the City of Whittier.

Not reported

EPA subsequently identified the Suburban Water Systems/Bartolo well field as an operable unit. U.S. EPA issued the Record of Decision in 1988, and began design of a wellhead treatment plant as the selected remedy. The Design was completed in July 1991. However, in October 1991, U.S. EPA conducted additional sampling of the Suburban wells and found that VOC concentrations decreased to below the Maximum Contaminant Levels (MCLs). U.S. EPA subsequently made the decision not to

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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move forward with construction of the remedy. In 1993 EPA amended the Whittier Narrows ROD in order to construct a monitoring well network to monitor VOC concentrations coming from the Bartolo wellfield and other upgradient sources. The 1993 amended ROD also included provisions for construction of a contingency remedy should concentrations of VOCs increase beyond the MCL level.

Not reported

DTSC and U.S. EPA have been in cost recovery negotiations since 1996 and in late 2002 received partial payment for its past cleanup costs under a settlement agreement with the two of the identified PRPs. A second settlement agreement with the remaining PRP is pending and is expected during Fiscal Year 2002/2003.

Not reported

8. WELLHEAD TREATMENT PROJECTS FUNDED BY DTSC

Not reported

DTSC has also contributed state funds for the construction of three well head treatment plants in the San Gabriel Basin:

Not reported

o Arrowhead Wellhead Treatment Project - \$1,161,433

o Big Dalton Wellhead Treatment Plant - \$2,758,305

o City of Monrovia Wellhead Treatment Project - \$838,564

the Whittier Narrows extraction and treatment plant and has currently set aside \$920,000 to cover these costs.

Not reported

2. Baldwin Park Operable Unit

Not reported

The Baldwin Park Operable Unit was established in order to address the most highly contaminated groundwater in the San Gabriel Basin. It includes portions of the cities of Azusa, Irwindale, Baldwin Park and West Covina.

Not reported

The March 1994 ROD identified the construction and operation of a groundwater extraction and treatment system (s) and distribution facilities capable of processing approximately 27 million gallons per day (gpm) as the preferred remedial alternative. This preferred alternative allowed for use of existing extraction wells and/or treatment systems where possible, as well as construction of new extraction wells, wellhead treatment units and/or regional extraction and treatment systems necessary to provide the desired hydrological containment.

Not reported

The 1997 discovery of perchlorate required EPA to revise its cleanup strategy. EPA issued an amended cleanup plan in May 1999, which included provisions for construction and operation of additional treatment systems to the original remedy for the treatment of perchlorate, NDMA, and 1,4-dioxane. U.S. EPA estimated that addition of these treatment units would increase the estimated costs of the proposed remedy from \$47 million in capital costs and \$4 million per year in annual O&M costs to \$85 million in capital costs and \$10 million per year in annual O&M costs.

Not reported

In May 1997, EPA sent "Special Notice" letters to the 19 named PRPs to begin formal negotiations expected to result in

Map ID
Direction
Distance
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

a binding commitment by the PRPs, in the form of a Consent Decree, to design, construct, and operate the groundwater cleanup facilities. The negotiations were originally expected to conclude in late 1997, but were delayed following the discovery of perchlorate, NDMA, and 1,4-dioxane.

Not reported

In 1998, local support shifted to an alternative plan proposed by the Main San Gabriel Basin Watermaster (a court-appointed entity responsible for administering the water rights agreement in the San Gabriel Basin). The Watermaster Plan proposed that the treated groundwater be used locally, and that local agencies play a major role in designing, building, and operating the cleanup facilities.

Not reported

By June 2000, however, negotiation had not produced agreements between EPA and the PRPs, or between the Offering Parties and the Watermaster. EPA concluded that negotiations alone were unlikely to produce an agreement and on June 30, 2000, issued a Unilateral Administrative Order (UAO) directing the 10 PRPs to complete the remedial design and make arrangements for the construction and operation of the BPOU groundwater extraction wells, treatment systems, and related cleanup facilities.

Not reported

However, negotiations between several of the local water purveyors and a group of potentially responsible parties (PRPs) known as the "offering parties" continued after issuance of the UAO. In Fall 2000, negotiations between the PRPs and water agencies resumed, and in January 2001 a 25-page preliminary agreement was reached between six water agencies and eight of the PRPs. The agreement, known as the Memorandum of Understanding (MOU), calls for the PRPs to fund most of the cost of designing, building, and operating the groundwater extraction and treatment facilities called for in EPA's cleanup plan and for the water agencies to construct, own, and operate the facilities.

Not reported

PRP-water agency negotiations to translate the MOU into a detailed binding agreement continued throughout 2001 and early 2002. In March 2002, eight PRPs and seven water agencies signed a final comprehensive agreement. This 300-page agreement commits the PRPs to fund the design, construction, and operation of the groundwater extraction, treatment, and conveyance facilities needed to satisfy EPA's cleanup goals and meet local water supply needs. The cleanup plan requires pumping of approximately 22,000 gallons per minute of contaminated groundwater and treating it to remove contaminants at an estimated cost of \$150 to \$200 million, making the groundwater cleanup one of the largest and most expensive in the United States.

Not reported

The water agencies and their contractors are completing most of the design and construction work, with EPA and PRP oversight. The remedy is being built as four subprojects, each ranging in capacity from 2,500 gallons per minute to 7,800 gallons per minute. Each subproject has or will have one or more groundwater extraction wells and a series of treatment processes expected to include air stripping, ion exchange, and

Map ID
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Elevation

MAP FINDINGS

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Database(s)

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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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advanced oxidation (ultraviolet light and hydrogen peroxide).

Not reported

The first of the four subprojects, the La Puente Valley County Water District project, has been completed and is now supplying the treated groundwater for potable use. As of May 2002, the second subproject, the San Gabriel Valley Water Company B6 project, is beginning construction. The third subproject, the Valley County Water District-Arrow/Lante subproject, is about to begin construction. The fourth and last subproject, the San Gabriel Valley Water Company B6 subproject is in the initial design phase. The San Gabriel Valley Water Company B6 subproject and the Valley County Water District subproject are expected to be completed in late 2002 or early 2003, and construction on the final subproject should be completed by mid-2003.

Not reported

3. Puente Valley Operable Unit

Not reported

The Puente Valley Operable Unit includes most of the City of Industry and portions of the City of La Puente.

Not reported

U.S. EPA presented a cleanup plan for the Puente Valley Operable Unit in January 1998. The record of Decision (ROD) for the OU

Comments Date:

01031994

Comments:

Arrow and Big Dalton Wellhead treatment plants begin

Comments Date:

01031994

Comments:

operations, both were shut down in 1997 due to perchlorate

Comments Date:

01031994

Comments:

contamination.

Comments Date:

02061994

Comments:

DTSC provided funding to build a wellhead treatment system for

Comments Date:

02061994

Comments:

two City of Monrovia Supply Wells. Construction of the

Comments Date:

02061994

Comments:

wellhead treatment system began in 1994 and was completed in

Comments Date:

02061994

Comments:

1997.

Comments Date:

02182004

Comments:

RMDL - BP-B6: Completion of construction of B6 Groundwater

Comments Date:

02182004

Comments:

extraction and treatment plant which will process 11 million

Comments Date:

02182004

Comments:

gallons of water per day. This is one of several projects which

Comments Date:

02182004

Comments:

are jointly funded by the Responsible Parties and local water

Comments Date:

02182004

Comments:

purveyors that comprise the interim remedy for the Baldwin Park

Comments Date:

02182004

Comments:

OU.

Comments Date:

02281992

Comments:

Construction of Arrow Wellhead Treatment Project completed.

Comments Date:

02282001

Comments:

South El Monte OU - U.S. EPA issues special notice letters to

Comments Date:

02282001

Comments:

67 PRPs.

Comments Date:

03051993

Comments:

Whittier Narrows OU - U.S. EPA issues Record of Decision (ROD).

Comments Date:

03121992

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Comments: Construction of Arrow Wellhead Treatment Project Completed.
Comments Date: 03282002
Comments: Balwin Park OU - Agreement between 8 PRPs and water utilities
Comments Date: 03282002
Comments: to design and construct four projects which, taken together,
Comments Date: 03282002
Comments: will serve as the interim remedy for the Baldwin Park OU.
Comments Date: 03302001
Comments: Whittier Narrows OU - Final design of extraction and treatment
Comments Date: 03302001
Comments: system completed.
Comments Date: 03311994
Comments: U.S. EPA issues Record of Decision (ROD) for the Baldwin Park
Comments Date: 03311994
Comments: OU.
Comments Date: 05011998
Comments: Baldwin Park OU - U.S. EPA issues "Explanation of Significant
Comments Date: 05011998
Comments: Difference" (ESD) amending cleanup plan for the Baldwin Park OU
Comments Date: 05011998
Comments: to include treatment of Perchlorate, NDMA and 1,4-Dioxane.
Comments Date: 05081984
Comments: San Gabriel Basin Groundwater Site added to the National
Comments Date: 05081984
Comments: Priorities List (NPL).
Comments Date: 05111984
Comments: Richwood OU - U.S. EPA issues Record of Decision (ROD).
Comments Date: 05121994
Comments: Richwood OU - DTSC makes decision to provide the community of
Comments Date: 05121994
Comments: Richwood an alternative source of drinking water supply in
Comments Date: 05121994
Comments: lieu of continued operation of the Richwood groundwater
Comments Date: 05121994
Comments: treatment plant.
Comments Date: 06012000
Comments: Baldwin Park OU - U.S. EPA issues Unilateral Administrative
Comments Date: 06012000
Comments: Order (UAO) to 19 PRPs to design and construct the Baldwin
Comments Date: 06012000
Comments: Park Remedy.
Comments Date: 06151997
Comments: Perchlorate discovered in Baldwin Park OU.
Comments Date: 06171991
Comments: DTSC allocates funding for Arrow, Big Dalton and City of
Comments Date: 06171991
Comments: Monrovia wellhead treatment projects.
Comments Date: 06301999
Comments: U.S. EPA issued Record of Decision (ROD) for El Monte OU.
Comments Date: 07242001
Comments: El Monte OU - U.S. EPA issues special notice letters to 27 PRPs.
Comments Date: 07251991
Comments: Site encompasses 10-20 miles east of Los Angeles on Hwy 10 in
Comments Date: 07251991
Comments: Azusa, Baldwin Park, Monterey Park, City of Industry, Covina,
Comments Date: 07251991
Comments: and Monrovia and runs along the axis of the Rio Hondo Wash

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

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SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Comments Date: 07251991
Comments: beneath the cities of Monrovia, Irwindale, and El Monte. Site
Comments Date: 07251991
Comments: parallels the San Gabriel River to the east. Large plume of
Comments Date: 07251991
Comments: groundwater is contaminated with PCE, TCE, and CTC.
Comments Date: 08302002
Comments: El Monte OU - "Explanation of Significant Difference" (ESD)
Comments Date: 08302002
Comments: issued amending cleanup plan for El Monte OU.
Comments Date: 09011988
Comments: Contract issued to the San Gabriel Basin Water Quality
Comments Date: 09011988
Comments: Authority for construction of the Arrow Wellhead Treatment
Comments Date: 09011988
Comments: Plant.
Comments Date: 09121989
Comments: Suburban OU - U.S. EPA issues Record of Decision.
Comments Date: 09132000
Comments: U.S. EPA sends special notice letter to 56 PRPs initiating
Comments Date: 09132000
Comments: beginning of the RD/RA negotiation phase.
Comments Date: 09191993
Comments: Richwood OU - Financial responsibility for operation and
Comments Date: 09191993
Comments: maintenance for the Richwood treatment plant shifted to DTSC.
Comments Date: 09251993
Comments: Suburban OU - ROD amendment issued.
Comments Date: 09291987
Comments: Richwood OU - ROD amendment issued and construction of the
Comments Date: 09291987
Comments: Richwood groundwater treatment plant was initiated.
Comments Date: 09301998
Comments: U.S. EPA issued a Record of Decision (ROD) for Puente Valley OU.
Comments Date: 09302002
Comments: Baldwin Park OU - Payment of DTSC past costs under a small
Comments Date: 09302002
Comments: party cashout Agreement dated August 28, 2002.
Comments Date: 09302003
Comments: RMDL - WNOU: U.S. EPA completed construction of the 11,000 gallon
Comments Date: 09302003
Comments: per minute (gpm) groundwater extraction and treatment system
Comments Date: 09302003
Comments: which constituted the interim remedy for the Whittier Narrows
Comments Date: 09302003
Comments: Operable Unit on May 16, 2002. On September 30, 2003 U.S.EPA
Comments Date: 09302003
Comments: issued the Remedial Action Report for the Whittier Narrows
Comments Date: 09302003
Comments: Interim Remedy, the internal report that EPA uses to formally
Comments Date: 09302003
Comments: document the end of the remedial construction phase and the
Comments Date: 09302003
Comments: initiation of the formal Operation and Maintenance period, which
Comments Date: 09302003
Comments: began on May 16, 2003.
Comments Date: 10012004

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Comments: Completion of construction of Valley County Water District
Comments Date: 10012004
Comments: (VCWD) Arrow Lante groundwater treatment facility. This
Comments Date: 10012004
Comments: treatment system is one element of three projects that are
Comments Date: 10012004
Comments: components of the larger overall remedy for the Baldwin Park OU.
Comments Date: 11122002
Comments: Suburban OU - Payment of DTSC's pasts costs for the Suburban OU
Comments Date: 11122002
Comments: under a small party cashout settlement dated October 16, 2002.
Comments Date: 11151999
Comments: Whittier Narrows OU - ROD amendment issued.
Comments Date: 11302000
Comments: U.S. EPA issues Record of Decision (ROD) for So. El Monte OU.
Comments Date: 12311999
Comments: Richwood OU - San Gabriel Valley Water Company takes over
Comments Date: 12311999
Comments: responsibility for supplying the Richwood community with a
Comments Date: 12311999
Comments: permanent water supply, ending DTSC's financial responsibility
Comments Date: 12311999
Comments: for O & M of the Richwood remedy.
ID Name: BEP DATABASE PCODE
ID Value: P31035
ID Name: CALSTARS CODE
ID Value: 300502
ID Name: CALSTARS CODE
ID Value: 301178
ID Name: CALSTARS CODE
ID Value: 300345
ID Name: CALSTARS CODE
ID Value: 300346
ID Name: CALSTARS CODE
ID Value: 300347
ID Name: CALSTARS CODE
ID Value: 300131
ID Name: CALSTARS CODE
ID Value: 300132
Alternate Name: SAN GABRIEL, OVERALL SITESAN GABRIEL GROUNDWATER BASIN (1-4)*SAN GABRIEL
GROUNDWATER BASIN (1-4)SAN GABRIEL GROUNDWATER BASIN (1-4)*
Special Programs Code: MSCA
Special Programs Name: MULTI-SITE COOPERATIVE AGREEMENT

CORTESE:

Region: CORTESE
Envirostor Id: 19990006
Site/Facility Type: FEDERAL SUPERFUND - LISTED
Cleanup Status: ACTIVE
Status Date: 05/25/2010
Site Code: 300131, 300132, 300345, 300347, 300502, 301178, 301284, 301369,
301370, 301404, 301425
Latitude: 34.072395
Longitude: -118.0325
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported

Map ID
Direction
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Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Flag: export
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

ENVIROSTOR:

Site Type: Federal Superfund
Site Type Detailed: State Response or NPL
Acres: 72320
NPL: YES
Regulatory Agencies: SMBRP, RWQCB 4 - Los Angeles, US EPA
Lead Agency: US EPA
Program Manager: Kate Burger
Supervisor: Dan Ward
Division Branch: Engineering & Special Projects
Facility ID: 19990006
Site Code: 301502
Assembly: 48
Senate: 22
Special Program: Not reported
Status: Active
Status Date: 05/25/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Joint State/Federal-Funded
Latitude: 34.07239
Longitude: -118.0325
APN: NONE SPECIFIED
Past Use: AEROSPACE MANUFACTURING/MAINTENANCE, AEROSPACE ROCKET TESTING/LAUNCH, BATTERY STORAGE, DEGREASING FACILITY, DRY CLEANING, ELECTRIC GENERATION/SUBSTATION, ENGINE TESTING/REPAIR, FIRING RANGE - SMALL ARMS ETC..., FOUNDRY, FUEL - VEHICLE STORAGE/ REFUELING, JUNKYARD, LABORATORIES- UNSPECIFIED, MACHINE SHOP, MANUFACTURED GAS PLANT, MANUFACTURING - CERAMICS, MANUFACTURING - CHEMICALS, MANUFACTURING - ELECTRONIC, MANUFACTURING - INDUSTRIAL MACHINERY, MANUFACTURING - METAL, MANUFACTURING - OTHER, PAINT MANUFACTURING, MANUFACTURING - PAPER, MANUFACTURING - PESTICIDES, MANUFACTURING - PETROLEUM, METAL FINISHING, METAL PLATING - OTHER, PAINT/DEPAINT FACILITY, RECYCLING - DRUM, RESEARCH - AEROSPACE, RETAIL - SERVICE STATION
Potential COC: Perchlorate, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,4-Dioxane, N-Nitroso-N-methylethylamine
Confirmed COC: Perchlorate, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,4-Dioxane, N-Nitroso-N-methylethylamine, Perchlorate, Tetrachloroethylene (PCE, 1,4-Dioxane, Trichloroethylene (TCE, N-Nitroso-N-methylethylamine
Potential Description: AQUI, OTH, SOIL, WELL
Alias Name: *SAN GABRIEL GROUNDWATER BASIN (1-4)
Alias Type: Alternate Name
Alias Name: SAN GABRIEL GROUNDWATER BASIN (1-4)
Alias Type: Alternate Name
Alias Name: SAN GABRIEL, OVERALL SITE
Alias Type: Alternate Name
Alias Name: 110033609879

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Alias Type: EPA (FRS #)
Alias Name: P31035
Alias Type: PCode
Alias Name: 300132
Alias Type: Project Code (Site Code)
Alias Name: 300345
Alias Type: Project Code (Site Code)
Alias Name: 300347
Alias Type: Project Code (Site Code)
Alias Name: 301178
Alias Type: Project Code (Site Code)
Alias Name: 301369
Alias Type: Project Code (Site Code)
Alias Name: 301370
Alias Type: Project Code (Site Code)
Alias Name: 301404
Alias Type: Project Code (Site Code)
Alias Name: 301425
Alias Type: Project Code (Site Code)
Alias Name: 301502
Alias Type: Project Code (Site Code)
Alias Name: 19990006
Alias Type: Envirostor ID Number
Alias Name: 60001335
Alias Type: Envirostor ID Number
Alias Name: 60001336
Alias Type: Envirostor ID Number
Alias Name: 60001337
Alias Type: Envirostor ID Number
Alias Name: 60001338
Alias Type: Envirostor ID Number
Alias Name: 60001339
Alias Type: Envirostor ID Number
Alias Name: 60001340
Alias Type: Envirostor ID Number
Alias Name: <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/3dec8ba325236842882574260743733/0065ed704ae95ccc88257007005e941e!OpenDocument>
Alias Type: External Website Link / URL

Completed Info:

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Suburban OU (aka Suburban Water Systems/Bartolo Wellfield)
Completed Document Type: Feasibility Study Report
Completed Date: 06/22/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/08/1984
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 12/01/2002
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/30/1998
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Big Dalton Wellhead Treatment Project (aka Baldwin Park Covina Wellhead Treatment Project; aka Covina Wellhead Treatment Project)
Completed Document Type: Letter - Demand
Completed Date: 12/15/1998
Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Richwood OU
Completed Document Type: Remedy Constructed: Operating Properly & Successfully
Completed Date: 12/31/1999
Comments: Richwood OU - DTSC oversight of the remedial activities at the Richwood operable unit ended in December 1999 when San Gabriel Valley Water Company took over the responsibility of supplying the Richwood community with an alternative source of clean drinking water.

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: City of Monrovia Wellhead Treatment Project
Completed Document Type: Remedial Action Completion Report
Completed Date: 02/12/1996
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 06/15/1994
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Big Dalton Wellhead Treatment Project (aka Baldwin Park Covina Wellhead Treatment Project; aka Covina Wellhead Treatment Project)
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 10/31/1993
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Big Dalton Wellhead Treatment Project (aka Baldwin Park Covina Wellhead Treatment Project; aka Covina Wellhead Treatment Project)
Completed Document Type: Remedial Action Plan
Completed Date: 06/30/1993
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 07/21/1992
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Arrow Wellhead Treatment Project
Completed Document Type: Remedial Action Completion Report

Map ID
Direction
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MAP FINDINGS

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Database(s)

EDR ID Number
EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

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Completed Date: 01/30/1992
Comments: Not reported

Completed Area Name: Preliminary Basinwide Investigation
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 01/31/1989
Comments: Not reported

Completed Area Name: Preliminary Basinwide Investigation
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 05/31/1984
Comments: Not reported

Completed Area Name: Preliminary Basinwide Investigation
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 03/31/1984
Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Suburban OU (aka Suburban Water Systems/Bartolo Wellfield)
Completed Document Type: Record of Decision
Completed Date: 09/28/1988
Comments: Record of Decision (ROD) was issued by U.S. EPA on September 28, 1988

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Suburban OU (aka Suburban Water Systems/Bartolo Wellfield)
Completed Document Type: Record of Decision - Amendment
Completed Date: 09/22/1993
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Big Dalton Wellhead Treatment Project (aka Baldwin Park Covina Wellhead Treatment Project; aka Covina Wellhead Treatment Project)
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/31/1991
Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
Completed Sub Area Name: Big Dalton Wellhead Treatment Project (aka Baldwin Park Covina Wellhead Treatment Project; aka Covina Wellhead Treatment Project)
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 07/30/1988
Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Richwood OU
Completed Document Type: Record of Decision
Completed Date: 05/06/1984
Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
Completed Sub Area Name: Richwood OU
Completed Document Type: Record of Decision - Amendment
Completed Date: 09/01/1987

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAN GABRIEL GROUNDWATER BASIN (1-4)* (Continued)

S101272771

Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
 Completed Sub Area Name: City of Monrovia Wellhead Treatment Project
 Completed Document Type: State/Federal Funded Site Contract
 Completed Date: 06/11/1992
 Comments: Not reported

Completed Area Name: Wellhead Treatment Projects Partially Funded by DTSC
 Completed Sub Area Name: City of Monrovia Wellhead Treatment Project
 Completed Document Type: Imminent and/or Substantial Endangerment Order
 Completed Date: 12/08/1994
 Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
 Completed Sub Area Name: Suburban OU (aka Suburban Water Systems/Bartolo Wellfield)
 Completed Document Type: Consent Decree
 Completed Date: 04/22/2002
 Comments: Not reported

Completed Area Name: Operable Units with Completed Investigation & Cleanup
 Completed Sub Area Name: Suburban OU (aka Suburban Water Systems/Bartolo Wellfield)
 Completed Document Type: Consent Decree
 Completed Date: 09/25/2003
 Comments: Not reported

Future Area Name: Area 1
 Future Sub Area Name: Not reported
 Future Document Type: 5 Year Review Reports
 Future Due Date: 2017
 Schedule Area Name: Area 1
 Schedule Sub Area Name: Not reported
 Schedule Document Type: 5 Year Review Reports
 Schedule Due Date: 12/15/2013
 Schedule Revised Date: Not reported

91
 SW
 1/2-1
 0.693 mi.
 3661 ft.

**SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE)
 COVERS ALL OF CITY OF SOUTH EL MONTE AND PORTIONS OF EL MONT
 SOUTH EL MONTE, CA 91733**

**Cortese S110653119
 ENVIROSTOR N/A**

**Relative:
 Lower**

CORTESE:
 Region: CORTESE
 Envirostor Id: 60001339
 Site/Facility Type: FEDERAL SUPERFUND - LISTED
 Cleanup Status: ACTIVE
 Status Date: 05/25/2010
 Site Code: 300347
 Latitude: 34.053370
 Longitude: -118.04208
 Owner: Not reported
 Enf Type: Not reported
 Swat R: Not reported
 Flag: export
 Order No: Not reported
 Waste Discharge System No: Not reported
 Effective Date: Not reported

**Actual:
 256 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE) (Continued)

S110653119

Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

ENVIROSTOR:

Site Type: Federal Superfund
Site Type Detailed: State Response or NPL
Acres: 5120
NPL: YES
Regulatory Agencies: SMBRP, RWQCB 4 - Los Angeles, US EPA
Lead Agency: US EPA
Program Manager: Christine Bucklin
Supervisor: Kate Burger
Division Branch: Engineering & Special Projects
Facility ID: 60001339
Site Code: 300347
Assembly: 57
Senate: 22
Special Program: EPA - Multi-Site Cooperative Agreement
Status: Active
Status Date: 05/25/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Joint State/Federal-Funded
Latitude: 34.05337
Longitude: -118.0420
APN: NONE SPECIFIED
Past Use: AEROSPACE MANUFACTURING/MAINTENANCE, MANUFACTURING - CHEMICALS, MANUFACTURING - ELECTRONIC, MANUFACTURING - INDUSTRIAL MACHINERY, MANUFACTURING - METAL, MANUFACTURING - OTHER
Potential COC: Perchlorate, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,4-Dioxane
Confirmed COC: Perchlorate, Tetrachloroethylene (PCE, Trichloroethylene (TCE, 1,4-Dioxane, Perchlorate, Tetrachloroethylene (PCE, 1,4-Dioxane, Trichloroethylene (TCE
Potential Description: AQUI, OTH, WELL
Alias Name: San Gabriel Groundwater Basin (1-4)*
Alias Type: Alternate Name
Alias Name: 300347
Alias Type: Project Code (Site Code)
Alias Name: 19990006
Alias Type: Envirostor ID Number
Alias Name: 60001339
Alias Type: Envirostor ID Number
Alias Name: <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/3dec8ba325236842882574260743733/0065ed704ae95ccc88257007005e941e!OpenDocument>
Alias Type: External Website Link / URL

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 05/10/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE) (Continued)

S110653119

Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 05/05/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 06/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 06/20/2013
Comments: EPA has indicated that they have completed the approved workplan in phases; they are preparing a Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/13/2011
Comments: Not reported

Completed Area Name: INTERMEDIATE ZONE/WESTERN COMPONENT (ESD)
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/01/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 07/03/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 03/28/2013
Comments: specific sections are in compliance well report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/12/2012
Comments: no comments

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedy Constructed: Operating Properly & Successfully
Completed Date: 05/10/2013
Comments: Interim remedy is O&F as of May 10, 2013.

Completed Area Name: INTERMEDIATE ZONE/WESTERN COMPONENT (ESD)
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE) (Continued)

S110653119

Completed Date: 03/07/2013
Comments: DTSC Engineering section reviewed the document and had no outstanding comments

Completed Area Name: INTERMEDIATE ZONE/WESTERN COMPONENT (ESD)
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/02/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: 06/15/1994
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Letter - Demand
Completed Date: 06/30/1999
Comments: City of Monterey Park

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 03/29/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 10/23/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 05/10/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 04/13/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 08/19/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 05/15/2012
Comments: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE) (Continued)

S110653119

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 10/23/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 10/26/2012
Comments: Date filed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 05/15/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Decree
Completed Date: 08/19/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Correspondence
Completed Date: 01/11/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: State/Federal Funded Site Contract
Completed Date: 07/05/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision
Completed Date: 09/28/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: 04/07/1999
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 12/15/1994
Comments: Not reported

Completed Area Name: INTERMEDIATE ZONE/WESTERN COMPONENT (ESD)
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SOUTH EL MONTE (SAN GABRIEL VALLEY SUPERFUND SITE) (Continued)

S110653119

Completed Date: 11/10/2005
 Comments: The ESD covers Perchlorate in the intermediate zone.

Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: Proposed Plan
 Future Due Date: 2015

Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: Record of Decision
 Future Due Date: 2015

Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: Feasibility Study Report
 Future Due Date: 2014

Schedule Area Name: PROJECT WIDE
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Remedial Investigation Report
 Schedule Due Date: 01/12/2014
 Schedule Revised Date: Not reported
 Schedule Area Name: INTERMEDIATE ZONE/WESTERN COMPONENT (ESD)
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Remedial Action Completion Report
 Schedule Due Date: 10/14/2013
 Schedule Revised Date: Not reported

92
SSW
1/2-1
0.849 mi.
4485 ft.

ABACUS GROUP, INC
1829 TYLER AVE
SOUTH EL MONTE, CA 91733

RCRA-SQG 1000182252
FINDS CAD084692284
LOS ANGELES CO. HMS
WIP
ENVIROSTOR

Relative:
Lower

Actual:
254 ft.

RCRA-SQG:
 Date form received by agency: 01/29/1986
 Facility name: ABACUS GROUP, INC
 Facility address: 1829 TYLER AVE
 SOUTH EL MONTE, CA 91733

EPA ID: CAD084692284
 Contact: ENVIRONMENTAL MANAGER
 Contact address: 1829 TYLER AVE
 SOUTH EL MONTE, CA 91733

Contact country: US
 Contact telephone: (818) 443-7556
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
 Owner/operator name: ABACUS GROUP, INC
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ABACUS GROUP, INC (Continued)

1000182252

Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002661815

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LOS ANGELES CO. HMS:

Region: LA
Facility Id: 006626-I06849
Facility Type: I02
Facility Status: Closed
Area: 3U
Permit Number: 000006991
Permit Status: Closed

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ABACUS GROUP, INC (Continued)

1000182252

WIP:

Region: 4
File Number: 107.0488
File Status: Historical
Staff: CCC
Facility Suite: Not reported

ENVIROSTOR:

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Facility ID: 71002616
Site Code: Not reported
Assembly: 57
Senate: 22
Special Program: Not reported
Status: Refer: Other Agency
Status Date: Not reported
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.05035
Longitude: -118.0393
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD084692284
Alias Type: EPA Identification Number
Alias Name: 110002661815
Alias Type: EPA (FRS #)
Alias Name: 71002616
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
--	--	-------------	--------------------------------

93 South 1/2-1 0.867 mi. 4577 ft.	EEMUS MANUFACTURING CORP. 11111 RUSH STREET SO. EL MONTE, CA 91733	RCRA-LQG NPDES HIST UST WIP ENVIROSTOR WDS	1000427514 CAD982348419
--	---	---	----------------------------

Relative:
Lower

RCRA-LQG:

Date form received by agency: 07/28/2010

Facility name: EEMUS MANUFACTURING CORP.
 Facility address: 11111 RUSH STREET
 SO. EL MONTE, CA 91733

EPA ID: CAD982348419
 Mailing address: RUSH STREET
 SO. EL MONTE, CA 91733

Contact: RICHARD W MITCHELL
 Contact address: RUSH STREET
 SO. EL MONTE, CA 91733

Contact country: Not reported
 Contact telephone: (626) 443-8841
 Contact email: EEMUSMFG@AOL.COM
 EPA Region: 09
 Classification: Large Quantity Generator
 Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: EEMUS MANUFACTURING CORP.
 Owner/operator address: Not reported
 Not reported

Owner/operator country: Not reported
 Owner/operator telephone: Not reported
 Legal status: Private
 Owner/Operator Type: Operator
 Owner/Op start date: 07/29/1983
 Owner/Op end date: Not reported

Owner/operator name: EEMUS MANUFACTURING CORP.
 Owner/operator address: RUSH STREET
 SO. EL MONTE, CA 91733

Owner/operator country: Not reported
 Owner/operator telephone: Not reported
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: 07/29/1983
 Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
 Owner/operator address: NOT REQUIRED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

Owner/operator country: NOT REQUIRED, ME 99999
Owner/operator telephone: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: GITTE SIMONIAN
Owner/operator address: NOT REQUIRED
Owner/operator address: NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/15/2008
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 02/10/2006
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 02/12/2004
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 02/21/2002
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

Date form received by agency: 03/04/1999
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS NANUFAC. CORP
Classification: Large Quantity Generator

Date form received by agency: 02/08/1996
Facility name: EEMUS MANUFACTURING CORP.
Classification: Large Quantity Generator

Date form received by agency: 03/30/1994
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS MFG. CORP.
Classification: Large Quantity Generator

Date form received by agency: 02/24/1992
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS MFG CORP
Classification: Large Quantity Generator

Date form received by agency: 04/12/1990
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS MANUFAC. CORP
Classification: Large Quantity Generator

Date form received by agency: 02/26/1988
Facility name: EEMUS MANUFACTURING CORP.
Site name: EEMUS NANUFAC. CORP
Classification: Large Quantity Generator

Hazardous Waste Summary:

Waste code: 212
Waste name: 212

Waste code: 213
Waste name: 213

Waste code: 352
Waste name: 352

Waste code: 792
Waste name: 792

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKEY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D007
Waste name: CHROMIUM

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F006
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Violation Status: No violations found

NPDES:

Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 4
Regulatory Measure Id: 190366
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 4 19I012575
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 09/25/1996
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Eemus Manufacturing Corp

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

Discharge Address: 11111 Rush St
Discharge City: South El Monte
Discharge State: California
Discharge Zip: 91733

HIST UST:

Region: STATE
Facility ID: 00000041138
Facility Type: Other
Other Type: CHEMICAL MACHINING
Total Tanks: 0001
Contact Name: GEORGE R. HOPPE, JR.
Telephone: 2136860253
Owner Name: EEMUS MFG. CORP.
Owner Address: 11111 RUSH STREET
Owner City,St,Zip: SOUTH EL MONTE, CA 91733

Tank Num: 001
Container Num: A
Year Installed: 1984
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

WIP:

Region: 4
File Number: 107.0115
File Status: Historical
Staff: CORTEZ
Facility Suite: Not reported

ENVIROSTOR:

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Facility ID: 71003011
Site Code: 600582
Assembly: 57
Senate: 22
Special Program: Not reported
Status: No Further Action
Status Date: 05/07/1998
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.04980
Longitude: -118.0337
APN: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982348419
Alias Type: EPA Identification Number
Alias Name: 110000887498
Alias Type: EPA (FRS #)
Alias Name: 600582
Alias Type: Project Code (Site Code)
Alias Name: 71003011
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 10/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Corrective Action Completion Determination
Completed Date: 08/14/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 10/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 08/14/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 05/07/1998
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/17/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EEMUS MANUFACTURING CORP. (Continued)

1000427514

Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 10/16/2001
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CA WDS:

Facility ID: 4 19I012575
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 8184438841
Facility Contact: Gitte Simonian/Art Arteaga
Agency Name: EEMUS MANUFACTURING CORP.
Agency Address: Not reported
Agency City,St,Zip: 0
Agency Contact: Not reported
Agency Telephone: Not reported
Agency Type: Private
SIC Code: 3479
SIC Code 2: Not reported
Primary Waste: Stormwater Runoff
Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

94
South
1/2-1
0.902 mi.
4764 ft.

AVALON DEBURRING CO, PETER RAJ
1934 COGSWELL RD
SOUTH EL MONTE, CA 91733

WIP **S106765197**
EMI **N/A**
ENVIROSTOR

Relative:
Lower

WIP:

Region: 4
 File Number: 107.0044
File Status: Historical
 Staff: MM
 Facility Suite: Not reported

Actual:
252 ft.

EMI:

Year: 1990
 County Code: 19
 Air Basin: SC
 Facility ID: 62497
 Air District Name: SC
 SIC Code: 3471
 Air District Name: SOUTH COAST AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0
 Reactive Organic Gases Tons/Yr: 0
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

ENVIROSTOR:

Site Type: Tiered Permit
 Site Type Detailed: Tiered Permit
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Not reported
 Division Branch: Cleanup Chatsworth
 Facility ID: 71002171
 Site Code: Not reported
 Assembly: 57
 Senate: 22
 Special Program: Not reported
 Status: Refer: Other Agency
 Status Date: Not reported
 Restricted Use: NO
 Site Mgmt. Req.: NONE SPECIFIED
 Funding: Not reported
 Latitude: 34.04872
 Longitude: -118.0349
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
 Potential Description: NONE SPECIFIED

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

AVALON DEBURRING CO, PETER RAJ (Continued)

S106765197

Alias Name: CAD008284879
Alias Type: EPA Identification Number
Alias Name: 71002171
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

95
NNW
1/2-1
0.907 mi.
4789 ft.

**EL MONTE GATEWAY SPECIFIC PLAN
3615, 3535, 3675, 3527 SANTA ANITA AVENUE
EL MONTE, CA 91731**

**VCP S112205476
ENVIROSTOR N/A**

Relative:
Higher

VCP:

Actual:
271 ft.

Facility ID: 60001805
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 5
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Richard Allen
Supervisor: Javier Hinojosa
Division Branch: Cleanup Chatsworth
Site Code: 301579
Assembly: 57
Senate: 24
Special Programs Code: Voluntary Cleanup Program
Status: Active
Status Date: 09/25/2012
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 34.07451 / -118.0425
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC, UNDERGROUND STORAGE TANKS
Potential COC: 30013, 30015, 30024, 30027
Confirmed COC: 30013,30015,30024,30027
Potential Description: SOIL
Alias Name: 301579
Alias Type: Project Code (Site Code)
Alias Name: 60001805

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EL MONTE GATEWAY SPECIFIC PLAN (Continued)

S112205476

Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/15/2012
Comments: FA required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 02/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/29/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 09/25/2012
Comments: VCA Finalized

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Plan
Schedule Due Date: 12/14/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 10/25/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: CEQA - Initial Study/ Environmental Impact Report
Schedule Due Date: 03/25/2014
Schedule Revised Date: Not reported

ENVIROSTOR:

Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Richard Allen
Supervisor: Javier Hinojosa
Division Branch: Cleanup Chatsworth

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EL MONTE GATEWAY SPECIFIC PLAN (Continued)

S112205476

Facility ID: 60001805
Site Code: 301579
Assembly: 57
Senate: 24
Special Program: Voluntary Cleanup Program
Status: Active
Status Date: 09/25/2012
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.07451
Longitude: -118.0425
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC, UNDERGROUND STORAGE TANKS
Potential COC: Lead, Methane, TPH-diesel, Trichloroethylene (TCE)
Confirmed COC: Lead, Methane, TPH-diesel, Trichloroethylene (TCE, Lead, Methane, TPH-diesel, Trichloroethylene (TCE)
Potential Description: SOIL
Alias Name: 301579
Alias Type: Project Code (Site Code)
Alias Name: 60001805
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/15/2012
Comments: FA required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 02/25/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 07/29/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 09/25/2012
Comments: VCA Finalized

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Remedial Action Plan
Schedule Due Date: 12/14/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

EL MONTE GATEWAY SPECIFIC PLAN (Continued)

S112205476

Schedule Sub Area Name: Not reported
Schedule Document Type: Design/Implementation Workplan
Schedule Due Date: 10/25/2013
Schedule Revised Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: CEQA - Initial Study/ Environmental Impact Report
Schedule Due Date: 03/25/2014
Schedule Revised Date: Not reported

96
ESE
1/2-1
0.963 mi.
5085 ft.

HARLOW PLATING CO
12240 MAGNOLIA AVE
EL MONTE, CA

RCRA-SQG **1000291255**
FINDS **CAD981386055**
HIST UST
LA Co. Site Mitigation
WIP
HAZNET
ENVIROSTOR

Relative:
Higher

Actual:
282 ft.

RCRA-SQG:

Date form received by agency: 09/01/1996
Facility name: HARLOW PLATING CO
Facility address: 12240 MAGNOLIA AVE
EL MONTE, CA 91732
EPA ID: CAD981386055
Contact: Not reported
Contact address: Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: J SANTOIANNI
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARLOW PLATING CO (Continued)

1000291255

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
Used oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/11/1986
Facility name: HARLOW PLATING CO
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/31/1994
Date achieved compliance: 03/31/1999
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 03/31/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 03/31/1999
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002689305

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARLOW PLATING CO (Continued)

1000291255

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST UST:

Region: STATE
Facility ID: 00000055528
Facility Type: Other
Other Type: PLATING
Total Tanks: 0001
Contact Name: JOHN SANTOIANNI
Telephone: 8184011205
Owner Name: JOHN JAMES SANTOIANNI
Owner Address: 12240 MAGNOLIA AVE
Owner City,St,Zip: EL MONTE, CA 91732

Tank Num: 001
Container Num: 1
Year Installed: 1984
Tank Capacity: 00001500
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Visual

LA Co. Site Mitigation:

Facility ID: FA0016936
Site ID: SD0011250
Jurisdiction: State
Case ID: RO0011250
Abated: No
Assigned To: Not reported
Entered Date: 05/11/2004

WIP:

Region: 4
File Number: 107.0170
File Status: Historical
Staff: DKOO
Facility Suite: Not reported

Region: 4
File Number: 107.0970
File Status: Not reported
Staff: UNIDENTIFIED
Facility Suite: Not reported

HAZNET:

Year: 2010
Gepaid: CAD981386055
Contact: JOHN SANTOIANNI

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARLOW PLATING CO (Continued)

1000291255

Telephone: 6264011205
Mailing Name: Not reported
Mailing Address: 12240 MAGNOLIA ST
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.65
Facility County: Los Angeles

Year: 2006
Gepaid: CAD981386055
Contact: JOHN SANTOIANNI
Telephone: 6264011205
Mailing Name: Not reported
Mailing Address: 12240 MAGNOLIA ST
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: NVT330010000
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Tons: 1
Facility County: Los Angeles

Year: 2004
Gepaid: CAD981386055
Contact: JOHN SANTOIANNI
Telephone: 6264011205
Mailing Name: Not reported
Mailing Address: 12240 MAGNOLIA ST
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: CAD097030993
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Disposal, Other
Tons: 1
Facility County: Los Angeles

Year: 2003
Gepaid: CAD981386055
Contact: JOHN SANTOIANNI
Telephone: 6264011205
Mailing Name: Not reported
Mailing Address: 12240 MAGNOLIA ST
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 1
Facility County: Los Angeles

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARLOW PLATING CO (Continued)

1000291255

Year: 2002
Gepaid: CAD981386055
Contact: JOHN SANTOIANI
Telephone: 6264011205
Mailing Name: Not reported
Mailing Address: 12240 MAGNOLIA ST
Mailing City,St,Zip: EL MONTE, CA 917320000
Gen County: Not reported
TSD EPA ID: CAD097030993
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Recycler
Tons: 0.6
Facility County: Los Angeles

[Click this hyperlink](#) while viewing on your computer to access 15 additional CA_HAZNET: record(s) in the EDR Site Report.

ENVIROSTOR:

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Chatsworth
Facility ID: 71002779
Site Code: Not reported
Assembly: 48
Senate: 22
Special Program: Not reported
Status: Refer: Other Agency
Status Date: Not reported
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.05665
Longitude: -118.0183
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD981386055
Alias Type: EPA Identification Number
Alias Name: 110002689305
Alias Type: EPA (FRS #)
Alias Name: 71002779
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

HARLOW PLATING CO (Continued)

1000291255

Comments: Not reported
Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

97
SE
1/2-1
0.970 mi.
5124 ft.

KOTOFF & CO. INC.
2620 DURFEE AVE
EL MONTE, CA 91732

HIST UST U001569416
WIP N/A
ENVIROSTOR
WDS

Relative:
Higher

HIST UST:
Region: STATE
Facility ID: 00000050972
Facility Type: Other
Other Type: METAL FINISHING
Total Tanks: 0001
Contact Name: JAMES/WILLIAM KOTOFF
Telephone: 8184437115
Owner Name: KOTOFF & CO. INC.
Owner Address: 2620 DURFEE AVE.
Owner City,St,Zip: EL MONTE, CA 91732

Actual:
277 ft.

Tank Num: 001
Container Num: 1
Year Installed: 1982
Tank Capacity: 00001250
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 4 inches
Leak Detection: Visual

WIP:

Region: 4
File Number: 107.0202
File Status: Historical
Staff: CRS
Facility Suite: Not reported

ENVIROSTOR:

Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Mmonroy
Division Branch: Cleanup Chatsworth
Facility ID: 19281194

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KOTOFF & CO. INC. (Continued)

U001569416

Site Code: Not reported
Assembly: 48
Senate: 22
Special Program: * RCRA 3012 - Past Haz Waste Disp Inven Site
Status: Refer: Other Agency
Status Date: 05/01/1984
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.05358
Longitude: -118.0194
APN: 8109001007
Past Use: NONE SPECIFIED
Potential COC: * OTHER STILL BOTTOM WASTE, * UNSPECIFIED ACID SOLUTION, Polychlorinated biphenyls (PCBs, Chromium VI
Confirmed COC: * OTHER STILL BOTTOM WASTE, * UNSPECIFIED ACID SOLUTION, Polychlorinated biphenyls (PCBs, Chromium VI, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 8109001007
Alias Type: APN
Alias Name: CAD008284739
Alias Type: EPA Identification Number
Alias Name: 110000477699
Alias Type: EPA (FRS #)
Alias Name: 19281194
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 09/24/1983
Comments: FACILITY IDENTIFIED ID FROM ERRIS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 10/25/1994
Comments: Database verification project confirms NFA for DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 05/01/1984
Comments: PERMIT(OTHER) PERMIT: IW PERMIT #3775. (COUNTY) T/C W/J.KOTOFF,(818)443-7115, 4/6/84 - 1)SOURCE ACT: DECORATIVE CHROM,CHROM PLATING. 2)YR OF OPER: 1960 TO PRESENT SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KOTTOFF & CO. INC. (Continued)

U001569416

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: 1
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Robert Senga
Division Branch: Cleanup Chatsworth
Facility ID: 71002170
Site Code: 550102
Assembly: 48
Senate: 22
Special Program: Not reported
Status: Inactive - Needs Evaluation
Status Date: 11/30/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 34.05357
Longitude: -118.0194
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: * OTHER STILL BOTTOM WASTE, * UNSPECIFIED ACID SOLUTION, Polychlorinated biphenyls (PCBs, Chromium VI, NONE SPECIFIED, NONE SPECIFIED
Confirmed COC: * OTHER STILL BOTTOM WASTE, * UNSPECIFIED ACID SOLUTION, Polychlorinated biphenyls (PCBs, Chromium VI, NONE SPECIFIED, NONE SPECIFIED, NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD008284739
Alias Type: EPA Identification Number
Alias Name: 110000477699
Alias Type: EPA (FRS #)
Alias Name: 301060
Alias Type: Project Code (Site Code)
Alias Name: 550102
Alias Type: Project Code (Site Code)
Alias Name: 71002170
Alias Type: Envirostor ID Number
Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/11/2006
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Non-Submittal
Completed Date: 06/28/2000
Comments: Not reported
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase I Verification
Completed Date: 09/27/2001

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KOTTOFF & CO. INC. (Continued)

U001569416

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Consent Agreement
Completed Date: 03/21/2006
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CA WDS:

Facility ID: 4 19I001140
Facility Type: Other - Does not fall into the category of Municipal/Domestic, Industrial, Agricultural or Solid Waste (Class I, II or III)
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 4
Facility Telephone: 8184437115
Facility Contact: Jim Kotoff
Agency Name: KOTTOFF & CO. INC.
Agency Address: 2620 Durfee Ave.
Agency City,St,Zip: El Monte 91732
Agency Contact: Dean Miller
Agency Telephone: 6264437115
Agency Type: Private
SIC Code: 3471
SIC Code 2: Not reported
Primary Waste: Solid Wastes
Primary Waste Type: Inert/Influent or Solid Wastes that do not contain soluble pollutants or organic wastes and have little adverse impact on water quality. Such wastes could cause turbidity and siltation. Uncontaminated soils, rubble and concrete are examples of this category.
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: No reclamation requirements associated with this facility.
POTW: The facility is not a POTW.
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

KOTTOFF & CO. INC. (Continued)

U001569416

disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
EL MONTE	S113150519	EMUHSD - SOUTH EL MONTE HIGH SCHOO	1001ST & 1003RD N DURFEE AVE	91733	HAZNET
EL MONTE	S112842841	H K PECK EL MONTE PARTNERSHIP	3534TH & N PECK RD	91731	HAZNET
EL MONTE	S113120649	EL MONTE TIRE SHOP	2420 DURFEE AVE	91733	HAZNET
EL MONTE	S105023634	SAN GABRIEL GROUNDWATER B	1020 MI E. OF L.A. ON HWY	91732	HIST CORTESE
EL MONTE	S113063399	EL MONTE DOG & CAT HOSPITAL	10158 E GARVEY	91733	HAZNET
EL MONTE	1016140116	CVS PHARMACY NO 9609	9920 E GARVEY AVE	91733	RCRA-LQG
EL MONTE	S112983658	CITY OF EL MONTE	LAT 34068160	91731	HAZNET
EL MONTE	S113158104	EL MONTE AUTO GROUP LLC DBA NELSON	3464 N PECK RD	91731	HAZNET
EL MONTE	S112914176	EL MONTE UNION HIGH SCHOOL DIST	12347 RAMONA BLVD	91731	HAZNET
EL MONTE	S112833627	EL MONTE DISPOSAL SERVICE	STORAGE YARD MAPLE CYN	91732	LA Co. Site Mitigation
EL MONTE	S112873620	EL MONTE UNION HIGH SCHOOL DIST	3048 N TYLER	91731	HAZNET
EL MONTE	S106765005	AD GASS	4749 TYLER AVE	91731	WIP
EL MONTE	S113117959	EL CAMINO AUTO CENTER	1227 E VALLEY BLVD	91732	HAZNET
EL MONTE	S113166337	EL MONTE POST OFFICE	11151 VALLEY	91731	HAZNET
EL MONTE	S112998636	1X EL MONTE CITY SCHOOL DISTRICT	WRIGHT ELEMENTARY SCH	91731	HAZNET
LOS ANGELES COUNTY	M300003105	SLS & N, INC.	PECK ROAD GRAVEL PIT		US MINES
LOS ANGELES COUNTY	2009905113	EL SEGUNDO TERMINAL	EL SEGUNDO TERMINAL		ERNS
LOS ANGELES COUNTY	2008905113	EL SEGUNDO TERMINAL	EL SEGUNDO TERMINAL		ERNS
SOUTH EL MONTE	S113744252	GREATER EL MONTE DIALYSIS CTR	1938 I 168 TYLER AVE		LOS ANGELES CO. HMS
SOUTH EL MONTE	S103489455	EL TACO NAZO	9611 GARVEY AVE	91733	LOS ANGELES CO. HMS
SOUTH EL MONTE	1006805326	SHELL SERVICE STATION - 136123	1130 S PECK	91733	RCRA-SQG
SOUTH EL MONTE	S106842353	WAYMIRE DRUM CO,INC.,S EL MONT	3641 EL POCHE ST	91733	EMI
SOUTH EL MONTE	1010680718	EL MONTE DISPOSAL SERVICE	STORAGE YARD		FINDS
SOUTH EL MONTE	S112847982	1X EL MONTE TOOL AND DYE FACILITY	2425 TYLER AVE	91733	HAZNET

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/09/2013	Telephone: N/A
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/29/2013	Telephone: 703-412-9810
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/30/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/09/2012	Telephone: 703-603-8704
Date Made Active in Reports: 12/20/2012	Last EDR Contact: 07/08/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013	Source: EPA
Date Data Arrived at EDR: 05/29/2013	Telephone: 703-412-9810
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/30/2013
Number of Days to Update: 72	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/12/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 6

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/18/2013
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/18/2013
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/18/2013
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/14/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/29/2013	Telephone: 703-603-0695
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/14/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/29/2013	Telephone: 703-603-0695
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 08/15/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/02/2013
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/17/2013	Telephone: 202-267-2180
Date Made Active in Reports: 02/15/2013	Last EDR Contact: 07/01/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/05/2013	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/05/2013	Telephone: 916-323-3400
Date Made Active in Reports: 08/27/2013	Last EDR Contact: 09/05/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/05/2013	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/05/2013	Telephone: 916-323-3400
Date Made Active in Reports: 08/27/2013	Last EDR Contact: 09/05/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/20/2013	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 05/21/2013	Telephone: 916-341-6320
Date Made Active in Reports: 06/25/2013	Last EDR Contact: 08/19/2013
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005	Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Date Data Arrived at EDR: 06/07/2005	Telephone: 760-241-7365
Date Made Active in Reports: 06/29/2005	Last EDR Contact: 09/12/2011
Number of Days to Update: 22	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003	Source: California Regional Water Quality Control Board Lahontan Region (6)
Date Data Arrived at EDR: 09/10/2003	Telephone: 530-542-5572
Date Made Active in Reports: 10/07/2003	Last EDR Contact: 09/12/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/26/2011
	Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008	Source: California Regional Water Quality Control Board Central Valley Region (5)
Date Data Arrived at EDR: 07/22/2008	Telephone: 916-464-4834
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 07/01/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 10/17/2011
	Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/19/2003	Telephone: 805-542-4786
Date Made Active in Reports: 06/02/2003	Last EDR Contact: 07/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004	Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-622-2433
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 08/01/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/26/2013	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/26/2013	Telephone: see region list
Date Made Active in Reports: 08/26/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/30/2013
	Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/26/2013	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/26/2013	Telephone: 866-480-1028
Date Made Active in Reports: 08/26/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/30/2013
	Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003	Source: California Regional Water Quality Control Board, North Coast Region (1)
Date Data Arrived at EDR: 04/07/2003	Telephone: 707-576-2220
Date Made Active in Reports: 04/25/2003	Last EDR Contact: 08/01/2011
Number of Days to Update: 18	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004	Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Date Data Arrived at EDR: 10/20/2004	Telephone: 510-286-0457
Date Made Active in Reports: 11/19/2004	Last EDR Contact: 09/19/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 01/02/2012
	Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006	Source: California Regional Water Quality Control Board Central Coast Region (3)
Date Data Arrived at EDR: 05/18/2006	Telephone: 805-549-3147
Date Made Active in Reports: 06/15/2006	Last EDR Contact: 07/18/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 10/31/2011
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 09/11/2007	Telephone: 858-467-2980
Date Made Active in Reports: 09/28/2007	Last EDR Contact: 08/08/2011
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/21/2011
	Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/05/2013	Source: EPA Region 10
Date Data Arrived at EDR: 02/06/2013	Telephone: 206-553-2857
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/28/2012	Source: EPA Region 1
Date Data Arrived at EDR: 11/01/2012	Telephone: 617-918-1313
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 08/02/2013
Number of Days to Update: 162	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012	Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012	Telephone: 303-312-6271
Date Made Active in Reports: 10/16/2012	Last EDR Contact: 07/24/2013
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011	Source: EPA Region 6
Date Data Arrived at EDR: 09/13/2011	Telephone: 214-665-6597
Date Made Active in Reports: 11/11/2011	Last EDR Contact: 07/24/2013
Number of Days to Update: 59	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/06/2013	Source: EPA Region 4
Date Data Arrived at EDR: 02/08/2013	Telephone: 404-562-8677
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 12/31/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/28/2013	Telephone: 913-551-7003
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013	Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/26/2013	Source: SWRCB
Date Data Arrived at EDR: 07/26/2013	Telephone: 916-341-5851
Date Made Active in Reports: 08/20/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/30/2013
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 07/03/2013
Number of Days to Update: 21	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013	Source: EPA Region 10
Date Data Arrived at EDR: 02/06/2013	Telephone: 206-553-2857
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013	Source: EPA Region 9
Date Data Arrived at EDR: 02/26/2013	Telephone: 415-972-3368
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 45	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/27/2012	Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012	Telephone: 303-312-6137
Date Made Active in Reports: 10/16/2012	Last EDR Contact: 07/24/2013
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012	Source: EPA Region 7
Date Data Arrived at EDR: 02/28/2013	Telephone: 913-551-7003
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 43	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011	Source: EPA Region 6
Date Data Arrived at EDR: 05/11/2011	Telephone: 214-665-7591
Date Made Active in Reports: 06/14/2011	Last EDR Contact: 07/24/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/02/2012	Source: EPA Region 5
Date Data Arrived at EDR: 08/03/2012	Telephone: 312-886-6136
Date Made Active in Reports: 11/05/2012	Last EDR Contact: 07/24/2013
Number of Days to Update: 94	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/06/2013	Source: EPA Region 4
Date Data Arrived at EDR: 02/08/2013	Telephone: 404-562-9424
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012	Source: EPA, Region 1
Date Data Arrived at EDR: 11/07/2012	Telephone: 617-918-1313
Date Made Active in Reports: 04/12/2013	Last EDR Contact: 08/02/2013
Number of Days to Update: 156	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 07/19/2013
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/05/2013	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 08/05/2013	Telephone: 916-323-3400
Date Made Active in Reports: 08/27/2013	Last EDR Contact: 09/05/2013
Number of Days to Update: 22	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012	Source: EPA, Region 1
Date Data Arrived at EDR: 10/02/2012	Telephone: 617-918-1102
Date Made Active in Reports: 10/16/2012	Last EDR Contact: 07/02/2013
Number of Days to Update: 14	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/24/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/25/2013	Telephone: 202-566-2777
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/05/2013
Number of Days to Update: 45	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: No Update Planned

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 08/16/2013
Number of Days to Update: 60

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 04/26/2013
Date Data Arrived at EDR: 04/26/2013
Date Made Active in Reports: 05/16/2013
Number of Days to Update: 20

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/15/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/31/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/04/2013
Date Data Arrived at EDR: 03/12/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 59

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/04/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/05/2013
Date Data Arrived at EDR: 08/05/2013
Date Made Active in Reports: 08/27/2013
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/05/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/14/2013
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009	Source: Department of Public Health
Date Data Arrived at EDR: 09/23/2009	Telephone: 707-463-4466
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 09/03/2013
Number of Days to Update: 8	Next Scheduled EDR Contact: 12/16/2013
	Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/25/1991	Telephone: 916-341-5851
Date Made Active in Reports: 02/12/1991	Last EDR Contact: 07/26/2001
Number of Days to Update: 18	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/25/2013	Telephone: 202-564-6023
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/24/2013
Number of Days to Update: 15	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/14/2013	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/17/2013	Telephone: 916-323-3400
Date Made Active in Reports: 08/21/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 65	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/10/2013
Date Data Arrived at EDR: 06/11/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 71

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 55

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 07/01/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 55

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 08/02/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 07/26/2013
Date Data Arrived at EDR: 07/26/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 31

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 07/26/2013
Date Data Arrived at EDR: 07/26/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/22/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 50	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/18/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2013	Telephone: (415) 495-8895
Date Made Active in Reports: 08/09/2013	Last EDR Contact: 08/08/2013
Number of Days to Update: 39	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 08/05/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/19/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 02/26/2013	Telephone: 202-528-4285
Date Made Active in Reports: 03/13/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 01/15/2013
Date Made Active in Reports: 03/13/2013
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/11/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/28/2013
Next Scheduled EDR Contact: 09/09/2013
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013
Date Data Arrived at EDR: 04/18/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/05/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 09/01/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 131

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/30/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Every 4 Years

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/10/2011	Telephone: 202-564-5088
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 07/01/2013
Number of Days to Update: 61	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2012	Source: EPA
Date Data Arrived at EDR: 01/16/2013	Telephone: 202-566-0500
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/17/2013
Number of Days to Update: 114	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/14/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/20/2013	Telephone: 301-415-7169
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/10/2013
Number of Days to Update: 112	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/09/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/11/2013	Telephone: 202-343-9775
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 07/12/2013
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013	Source: EPA
Date Data Arrived at EDR: 03/21/2013	Telephone: (415) 947-8000
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 08/15/2013
Number of Days to Update: 111	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012
Date Data Arrived at EDR: 05/25/2012
Date Made Active in Reports: 07/10/2012
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/26/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/19/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Quarterly

UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013
Date Data Arrived at EDR: 03/19/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 8

Source: Department of Conservation
Telephone: 916-445-2408
Last EDR Contact: 08/05/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 07/05/2013	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 07/05/2013	Telephone: 916-323-3400
Date Made Active in Reports: 08/26/2013	Last EDR Contact: 07/05/2013
Number of Days to Update: 52	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/01/1993	Telephone: 916-445-3846
Date Made Active in Reports: 11/19/1993	Last EDR Contact: 06/18/2013
Number of Days to Update: 18	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/11/2012	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 12/12/2012	Telephone: 916-327-4498
Date Made Active in Reports: 01/04/2013	Last EDR Contact: 06/18/2013
Number of Days to Update: 23	Next Scheduled EDR Contact: 12/24/2012
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 06/25/2013
Number of Days to Update: 13	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/26/2013	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/29/2013	Telephone: 916-445-9379
Date Made Active in Reports: 05/16/2013	Last EDR Contact: 08/08/2013
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/16/2013	Telephone: 916-255-1136
Date Made Active in Reports: 08/26/2013	Last EDR Contact: 07/16/2013
Number of Days to Update: 41	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2010	Source: California Air Resources Board
Date Data Arrived at EDR: 06/25/2013	Telephone: 916-322-2990
Date Made Active in Reports: 08/22/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 58	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/19/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/28/2013
	Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 08/01/2013
Number of Days to Update: 54	Next Scheduled EDR Contact: 11/04/2013
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/15/2013	Telephone: 202-566-1917
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 08/23/2013
Number of Days to Update: 56	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Quarterly

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 08/02/2013
Number of Days to Update: 83	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 65

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/02/2013
Date Data Arrived at EDR: 06/13/2013
Date Made Active in Reports: 07/24/2013
Number of Days to Update: 41

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/10/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/14/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 08/12/2013
Number of Days to Update: 27

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/16/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/27/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/21/2013
Date Data Arrived at EDR: 05/22/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 36

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/15/2013
Next Scheduled EDR Contact: 12/02/2013
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing Financial Assurance information

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 08/08/2013
Date Made Active in Reports: 08/27/2013
Number of Days to Update: 19

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 08/26/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/03/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/16/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administered lands of the United States. Lands included are administered by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/18/2012	Source: EPA
Date Data Arrived at EDR: 04/04/2013	Telephone: 202-564-6023
Date Made Active in Reports: 07/10/2013	Last EDR Contact: 07/03/2013
Number of Days to Update: 97	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Quarterly

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 08/22/2013
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Quarterly

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013	Source: EPA
Date Data Arrived at EDR: 01/30/2013	Telephone: 202-564-5962
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 100	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 01/23/2013	Source: EPA
Date Data Arrived at EDR: 01/30/2013	Telephone: 202-564-5962
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 100	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Annually

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 12/31/2012	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/18/2013	Telephone: 617-520-3000
Date Made Active in Reports: 05/10/2013	Last EDR Contact: 08/07/2013
Number of Days to Update: 81	Next Scheduled EDR Contact: 11/25/2013
	Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: N/A
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/25/2013
Date Data Arrived at EDR: 07/26/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 14

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/25/2013
Date Data Arrived at EDR: 07/26/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 25

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 06/28/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 06/20/2013
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 61

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 20

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Varies

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 16

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Quarterly

COLUSA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list.

Date of Government Version: 06/20/2013
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 08/09/2013
Number of Days to Update: 39

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/10/2013
Date Data Arrived at EDR: 06/11/2013
Date Made Active in Reports: 07/24/2013
Number of Days to Update: 43

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/05/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List

Cupa Facility list

Date of Government Version: 01/09/2013
Date Data Arrived at EDR: 01/10/2013
Date Made Active in Reports: 02/25/2013
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/31/2013
Next Scheduled EDR Contact: 08/19/2013
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/20/2013
Date Data Arrived at EDR: 05/21/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 35

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/05/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/30/2013
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 07/24/2013
Number of Days to Update: 8

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/15/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/09/2013
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 13

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/09/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 07/26/2013
Date Data Arrived at EDR: 08/09/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 13

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 06/26/2012
Date Data Arrived at EDR: 06/27/2012
Date Made Active in Reports: 08/17/2012
Number of Days to Update: 51

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/20/2013
Date Data Arrived at EDR: 06/24/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 58

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

LAKE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

Cupa facility list

Date of Government Version: 01/23/2013
Date Data Arrived at EDR: 01/25/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 07/08/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/28/2013
Date Data Arrived at EDR: 06/17/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 65

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/15/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/22/2013
Date Data Arrived at EDR: 07/22/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 35

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/22/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/17/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013
Date Data Arrived at EDR: 02/21/2013
Date Made Active in Reports: 03/25/2013
Number of Days to Update: 32

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/31/2013
Date Data Arrived at EDR: 08/01/2013
Date Made Active in Reports: 08/27/2013
Number of Days to Update: 26

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/26/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/15/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 33

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/15/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 04/16/2013
Date Made Active in Reports: 05/17/2013
Number of Days to Update: 31

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012
Date Data Arrived at EDR: 11/28/2012
Date Made Active in Reports: 01/21/2013
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

MONO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CUPA Facility List

CUPA Facility List

Date of Government Version: 06/04/2013
Date Data Arrived at EDR: 06/05/2013
Date Made Active in Reports: 07/15/2013
Number of Days to Update: 40

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/21/2013
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 61

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/29/2013
Date Data Arrived at EDR: 05/30/2013
Date Made Active in Reports: 07/15/2013
Number of Days to Update: 46

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 08/15/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/12/2013
Number of Days to Update: 28

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/15/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 41

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013
Date Data Arrived at EDR: 03/13/2013
Date Made Active in Reports: 03/27/2013
Number of Days to Update: 14

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/20/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/18/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 07/24/2013
Number of Days to Update: 6

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/18/2013
Date Data Arrived at EDR: 07/18/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 33

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/18/2013
Next Scheduled EDR Contact: 10/07/2013
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/03/2013
Date Data Arrived at EDR: 07/08/2013
Date Made Active in Reports: 07/24/2013
Number of Days to Update: 16

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/05/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/03/2013
Date Data Arrived at EDR: 07/08/2013
Date Made Active in Reports: 08/23/2013
Number of Days to Update: 46

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/05/2013
Next Scheduled EDR Contact: 10/21/2013
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/30/2013
Date Data Arrived at EDR: 05/31/2013
Date Made Active in Reports: 07/15/2013
Number of Days to Update: 45

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/17/2012
Date Data Arrived at EDR: 08/20/2012
Date Made Active in Reports: 10/03/2012
Number of Days to Update: 44

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 07/15/2013
Next Scheduled EDR Contact: 09/23/2013
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012
Date Data Arrived at EDR: 11/06/2012
Date Made Active in Reports: 11/30/2012
Number of Days to Update: 24

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/24/2013
Next Scheduled EDR Contact: 11/11/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 06/15/2010	Telephone: 619-338-2371
Date Made Active in Reports: 07/09/2010	Last EDR Contact: 06/10/2013
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 09/19/2008	Telephone: 415-252-3920
Date Made Active in Reports: 09/29/2008	Last EDR Contact: 08/07/2013
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/25/2013
	Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010	Source: Department of Public Health
Date Data Arrived at EDR: 03/10/2011	Telephone: 415-252-3920
Date Made Active in Reports: 03/15/2011	Last EDR Contact: 08/07/2013
Number of Days to Update: 5	Next Scheduled EDR Contact: 11/25/2013
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/18/2013	Source: Environmental Health Department
Date Data Arrived at EDR: 06/24/2013	Telephone: N/A
Date Made Active in Reports: 08/20/2013	Last EDR Contact: 06/18/2013
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 06/04/2013	Source: San Luis Obispo County Public Health Department
Date Data Arrived at EDR: 06/05/2013	Telephone: 805-781-5596
Date Made Active in Reports: 07/15/2013	Last EDR Contact: 08/22/2013
Number of Days to Update: 40	Next Scheduled EDR Contact: 12/09/2013
	Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/02/2013
Date Data Arrived at EDR: 07/05/2013
Date Made Active in Reports: 08/23/2013
Number of Days to Update: 49

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/13/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/18/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/30/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 06/04/2013
Date Made Active in Reports: 07/15/2013
Number of Days to Update: 41

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 06/03/2013
Date Data Arrived at EDR: 06/06/2013
Date Made Active in Reports: 07/15/2013
Number of Days to Update: 39

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 09/03/2013
Next Scheduled EDR Contact: 12/16/2013
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/16/2013
Date Data Arrived at EDR: 05/17/2013
Date Made Active in Reports: 06/25/2013
Number of Days to Update: 39

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/08/2013
Next Scheduled EDR Contact: 11/25/2013
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 05/28/2013
Date Data Arrived at EDR: 05/29/2013
Date Made Active in Reports: 06/27/2013
Number of Days to Update: 29

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/18/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 64

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/22/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/20/2013
Date Made Active in Reports: 08/12/2013
Number of Days to Update: 53

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/17/2013
Date Data Arrived at EDR: 06/20/2013
Date Made Active in Reports: 08/20/2013
Number of Days to Update: 61

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/12/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 07/05/2013
Date Data Arrived at EDR: 07/05/2013
Date Made Active in Reports: 08/21/2013
Number of Days to Update: 47

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/25/2013
Next Scheduled EDR Contact: 10/14/2013
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/02/2013	Source: Department of Health Services
Date Data Arrived at EDR: 07/05/2013	Telephone: 707-565-6565
Date Made Active in Reports: 08/12/2013	Last EDR Contact: 06/25/2013
Number of Days to Update: 38	Next Scheduled EDR Contact: 10/14/2013
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 06/10/2013	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 06/11/2013	Telephone: 530-822-7500
Date Made Active in Reports: 08/19/2013	Last EDR Contact: 06/10/2013
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/23/2013
	Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/14/2013	Source: Division of Environmental Health
Date Data Arrived at EDR: 01/16/2013	Telephone: 209-533-5633
Date Made Active in Reports: 02/27/2013	Last EDR Contact: 07/26/2013
Number of Days to Update: 42	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 04/26/2013	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 05/22/2013	Telephone: 805-654-2813
Date Made Active in Reports: 06/25/2013	Last EDR Contact: 08/19/2013
Number of Days to Update: 34	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 07/03/2013
Number of Days to Update: 49	Next Scheduled EDR Contact: 10/21/2013
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 08/19/2013
Number of Days to Update: 37	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 05/28/2013	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 06/24/2013	Telephone: 805-654-2813
Date Made Active in Reports: 08/12/2013	Last EDR Contact: 07/30/2013
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/11/2013
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/28/2013	Source: Environmental Health Division
Date Data Arrived at EDR: 06/17/2013	Telephone: 805-654-2813
Date Made Active in Reports: 08/20/2013	Last EDR Contact: 06/12/2013
Number of Days to Update: 64	Next Scheduled EDR Contact: 09/30/2013
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/24/2013	Source: Yolo County Department of Health
Date Data Arrived at EDR: 06/26/2013	Telephone: 530-666-8646
Date Made Active in Reports: 08/20/2013	Last EDR Contact: 06/07/2013
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/07/2013
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 08/01/2013	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 08/05/2013	Telephone: 530-749-7523
Date Made Active in Reports: 08/22/2013	Last EDR Contact: 07/31/2013
Number of Days to Update: 17	Next Scheduled EDR Contact: 11/18/2013
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/20/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 05/21/2013	Telephone: 860-424-3375
Date Made Active in Reports: 06/27/2013	Last EDR Contact: 08/19/2013
Number of Days to Update: 37	Next Scheduled EDR Contact: 12/02/2013
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/19/2013
Next Scheduled EDR Contact: 10/28/2013
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2013
Date Data Arrived at EDR: 05/09/2013
Date Made Active in Reports: 07/10/2013
Number of Days to Update: 62

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/07/2013
Next Scheduled EDR Contact: 11/18/2013
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/18/2013
Next Scheduled EDR Contact: 11/04/2013
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/23/2013
Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 09/27/2012
Number of Days to Update: 70

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/17/2013
Next Scheduled EDR Contact: 09/30/2013
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: Rextag Strategies Corp.
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

EL MONTE
2806 TYLER AVENUE & 11006-11028 GARVEY AVENUE
SOUTH EL MONTE, CA 91733

TARGET PROPERTY COORDINATES

Latitude (North):	34.0624 - 34° 3' 44.64"
Longitude (West):	118.0347 - 118° 2' 4.92"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	404513.5
UTM Y (Meters):	3769363.0
Elevation:	271 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	34118-A1 EL MONTE, CA
Most Recent Revision:	1994

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

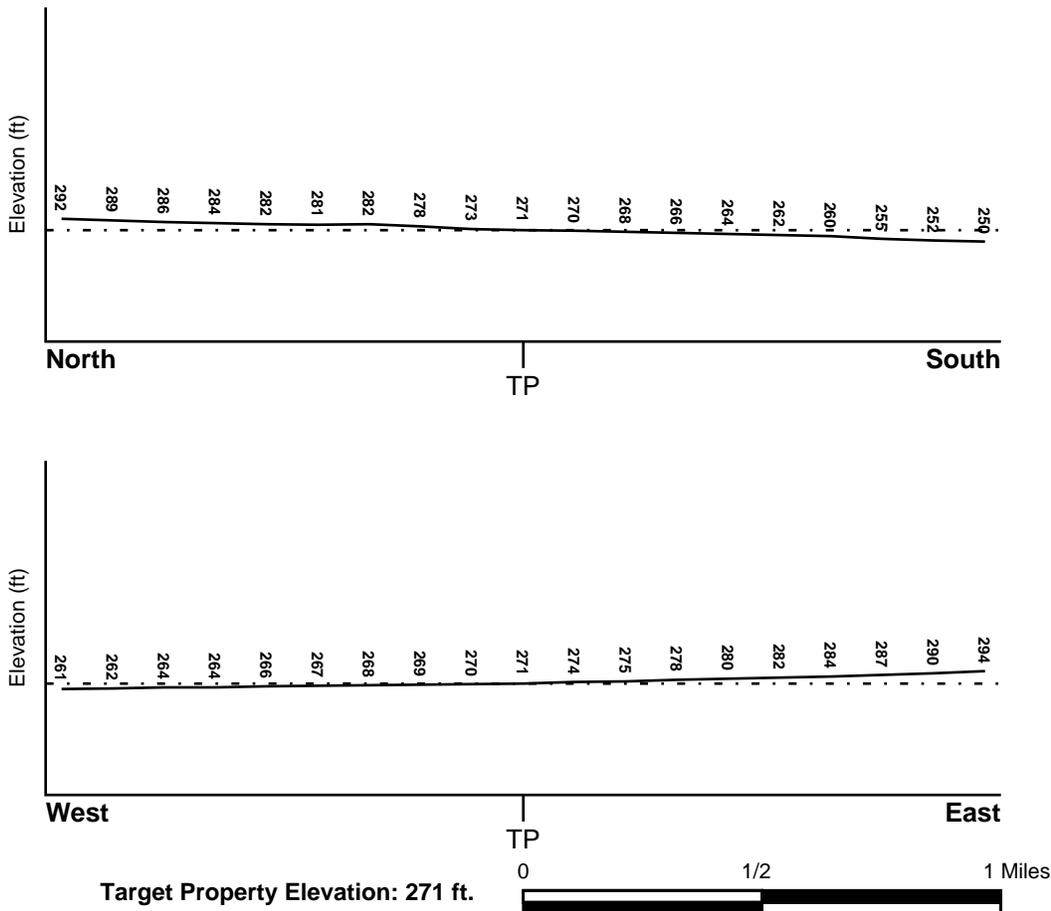
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County
LOS ANGELES, CA

FEMA Flood
Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
EL MONTE

NWI Electronic
Data Coverage
YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
 clay
 silt loam
 loamy sand
 sandy loam
 fine sand
 clay loam
 gravelly - sandy loam
 coarse sand
 gravelly - sand
 sand

Surficial Soil Types: loam
 clay
 silt loam
 loamy sand
 sandy loam
 fine sand
 clay loam
 gravelly - sandy loam
 coarse sand
 gravelly - sand
 sand

Shallow Soil Types: fine sandy loam
 gravelly - loam
 sand
 silty clay

Deeper Soil Types: stratified
 clay loam
 silty clay loam
 gravelly - sandy loam
 coarse sand
 sand
 weathered bedrock
 very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	USGS40000140440	1/4 - 1/2 Mile NNW
7	USGS40000140541	1/2 - 1 Mile NNE
B8	USGS40000140581	1/2 - 1 Mile North
B9	USGS40000140582	1/2 - 1 Mile North
10	USGS40000140253	1/2 - 1 Mile ESE
11	USGS40000140558	1/2 - 1 Mile NW
18	USGS40000140378	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
5	CA1910189	1/2 - 1 Mile NE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	1398	1/4 - 1/2 Mile North
A3	1399	1/4 - 1/2 Mile North
A4	1400	1/4 - 1/2 Mile North
6	1402	1/2 - 1 Mile NNW
12	1396	1/2 - 1 Mile NNW
C13	1379	1/2 - 1 Mile WNW
C14	1378	1/2 - 1 Mile WNW
C15	1393	1/2 - 1 Mile WNW
C16	1397	1/2 - 1 Mile WNW
C17	1394	1/2 - 1 Mile WNW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

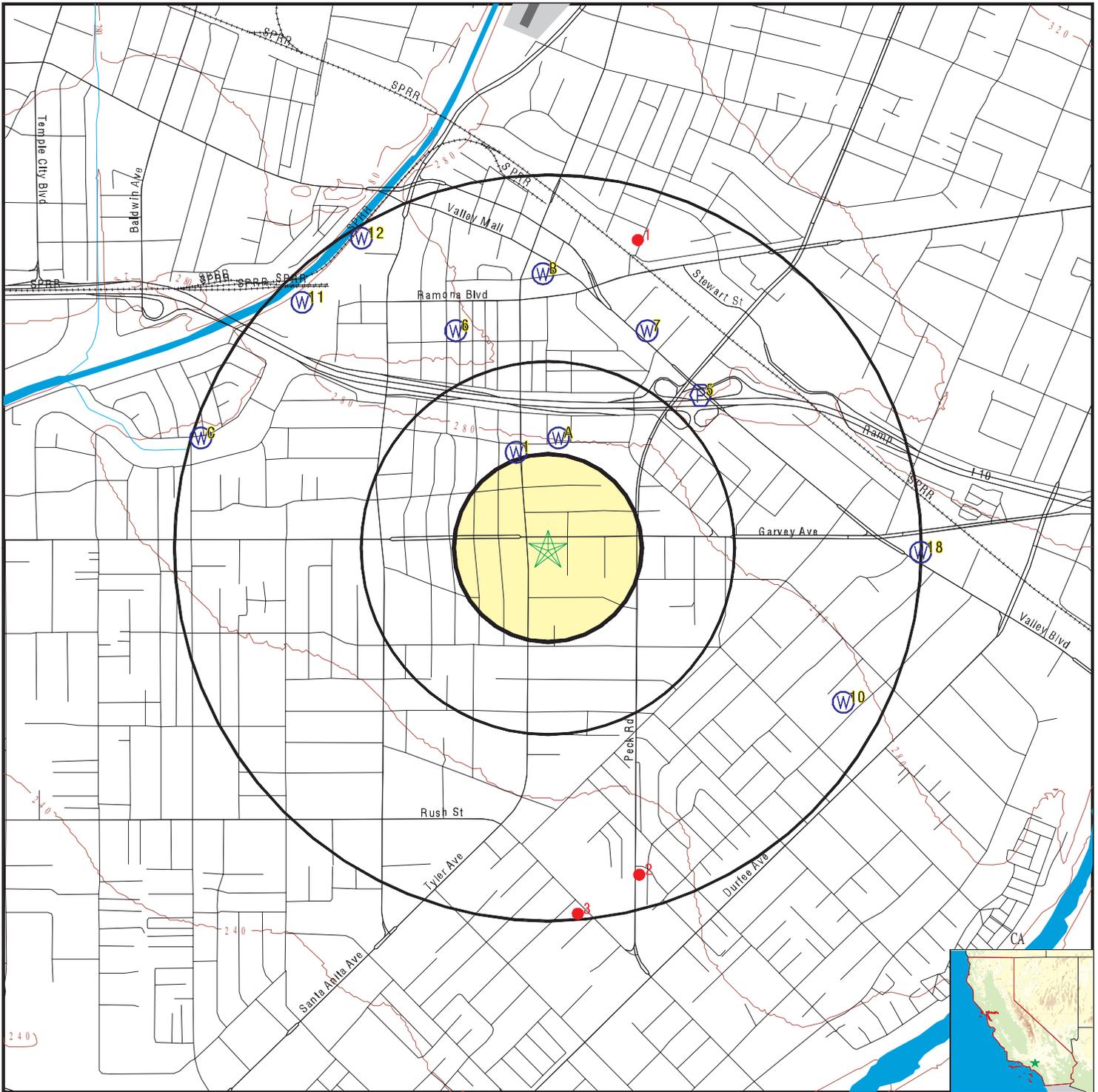
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG9A000033559	1/2 - 1 Mile NNE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	CAOG9A000031681	1/2 - 1 Mile SSE
3	CAOG9A000031672	1/2 - 1 Mile South

PHYSICAL SETTING SOURCE MAP - 3721288.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: El Monte
 ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue
 South El Monte CA 91733
 LAT/LONG: 34.0624 / 118.0347

CLIENT: Stantec
 CONTACT: Alicia Jansen
 INQUIRY #: 3721288.2s
 DATE: September 09, 2013 3:35 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
NNW
1/4 - 1/2 Mile
Higher
FED USGS **USGS40000140440**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340358118020701		
Monloc name:	001S011W21Q001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0661209
Longitude:	-118.036178	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A2
North
1/4 - 1/2 Mile
Higher
CA WELLS **1398**

Water System Information:

Prime Station Code:	01S/11W-21G01 S	User ID:	4TH
FRDS Number:	1910038003	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340400.0 1180200.0	Precision:	0.5 Mile (30 Seconds)
Source Name:	WELL 03		
System Number:	1910038		
System Name:	EL MONTE-CITY, WATER DEPT.		
Organization That Operates System:	P.O. BOX 6008		
	EL MONTE, CA 91734		
Pop Served:	13300	Connections:	3344
Area Served:	EL MONTE		
Sample Collected:	01/06/2011	Findings:	38. MG/L
Chemical:	NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/01/2011	Findings:	2.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	30. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	16. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/01/2011	Findings:	685. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/01/2011	Findings:	7.43
Chemical:	PH, LABORATORY		
Sample Collected:	03/01/2011	Findings:	278. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	338. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/01/2011	Findings:	326. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	93.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/01/2011	Findings:	22.3 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/01/2011	Findings:	23. MG/L
Chemical:	SODIUM		
Sample Collected:	03/01/2011	Findings:	3.02 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/01/2011	Findings:	22.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/01/2011	Findings:	0.27 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/01/2011	Findings:	312. UG/L
Chemical:	IRON		
Sample Collected:	03/01/2011	Findings:	404. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/01/2011	Findings:	29.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	0.26 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06/07/2011	Findings:	1.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	30.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/07/2011	Findings:	626. US
Chemical:	SPECIFIC CONDUCTANCE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/07/2011	Findings:	7.38
Chemical:	PH, LABORATORY		
Sample Collected:	06/07/2011	Findings:	225. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	06/07/2011	Findings:	275. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/07/2011	Findings:	302. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	06/07/2011	Findings:	88.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/07/2011	Findings:	20. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/07/2011	Findings:	21.7 MG/L
Chemical:	SODIUM		
Sample Collected:	06/07/2011	Findings:	3.17 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/07/2011	Findings:	22.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/07/2011	Findings:	0.33 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/07/2011	Findings:	282. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/07/2011	Findings:	30. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/07/2011	Findings:	0.33 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/12/2011	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	1.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	40.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/06/2011	Findings:	21. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/06/2011	Findings:	789. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/06/2011	Findings:	7.21
Chemical:	PH, LABORATORY		
Sample Collected:	09/06/2011	Findings:	310. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	09/06/2011	Findings:	378. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/06/2011	Findings:	338. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/06/2011	Findings:	96.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/06/2011	Findings:	23.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/06/2011	Findings:	20.7 MG/L
Chemical:	SODIUM		
Sample Collected:	09/06/2011	Findings:	3.18 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/06/2011	Findings:	26.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/06/2011	Findings:	0.26 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/06/2011	Findings:	387. UG/L
Chemical:	IRON		
Sample Collected:	09/06/2011	Findings:	366. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/06/2011	Findings:	39.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/06/2011	Findings:	0.57 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12/06/2011	Findings:	1.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	39.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/06/2011	Findings:	19.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/06/2011	Findings:	735. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/06/2011	Findings:	7.04
Chemical:	PH, LABORATORY		
Sample Collected:	12/06/2011	Findings:	280. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	342. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/06/2011	Findings:	357. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	103. MG/L
Chemical:	CALCIUM		
Sample Collected:	12/06/2011	Findings:	24.4 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/06/2011	Findings:	24.3 MG/L
Chemical:	SODIUM		
Sample Collected:	12/06/2011	Findings:	3.42 MG/L
Chemical:	POTASSIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/06/2011	Findings:	23.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/06/2011	Findings:	0.24 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/06/2011	Findings:	368. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/06/2011	Findings:	38.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/10/2012	Findings:	5.78 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01/10/2012	Findings:	0.393 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01/10/2012	Findings:	2.9 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	01/10/2012	Findings:	45. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/10/2012	Findings:	1.6e-002 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	03/06/2012	Findings:	0.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	46.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	18. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/06/2012	Findings:	763. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/06/2012	Findings:	7.06
Chemical:	PH, LABORATORY		
Sample Collected:	03/06/2012	Findings:	258. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	348. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/06/2012	Findings:	378. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	110. MG/L
Chemical:	CALCIUM		
Sample Collected:	03/06/2012	Findings:	25.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/06/2012	Findings:	24.6 MG/L
Chemical:	SODIUM		
Sample Collected:	03/06/2012	Findings:	3.63 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/06/2012	Findings:	25.9 MG/L
Chemical:	CHLORIDE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/06/2012	Findings:	0.21 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/06/2012	Findings:	400. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/06/2012	Findings:	46.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	0.27 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06/05/2012	Findings:	1. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	55.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/05/2012	Findings:	19. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/05/2012	Findings:	760. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/05/2012	Findings:	7.07
Chemical:	PH, LABORATORY		
Sample Collected:	06/05/2012	Findings:	283. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	345. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/05/2012	Findings:	391. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	114. MG/L
Chemical:	CALCIUM		
Sample Collected:	06/05/2012	Findings:	25.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/05/2012	Findings:	26.5 MG/L
Chemical:	SODIUM		
Sample Collected:	06/05/2012	Findings:	3.82 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/05/2012	Findings:	29. MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/05/2012	Findings:	0.22 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/05/2012	Findings:	376. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/05/2012	Findings:	53.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/05/2012	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/19/2012	Findings:	1.4 UG/L
Chemical:	TETRACHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	07/19/2012	Findings:	510. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/04/2012	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	45.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	22.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/04/2012	Findings:	775. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/04/2012	Findings:	7.02
Chemical:	PH, LABORATORY		
Sample Collected:	09/04/2012	Findings:	285. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	348. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/04/2012	Findings:	375. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	109. MG/L
Chemical:	CALCIUM		
Sample Collected:	09/04/2012	Findings:	25.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/04/2012	Findings:	23.6 MG/L
Chemical:	SODIUM		
Sample Collected:	09/04/2012	Findings:	3.54 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/04/2012	Findings:	25.1 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/04/2012	Findings:	0.234 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/04/2012	Findings:	306. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/04/2012	Findings:	44.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	0.32 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12/04/2012	Findings:	4.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	48.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/04/2012	Findings:	19. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/04/2012	Findings:	834. US
Chemical:	SPECIFIC CONDUCTANCE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/04/2012	Findings:	7.26
Chemical:	PH, LABORATORY		
Sample Collected:	12/04/2012	Findings:	295. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	360. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/04/2012	Findings:	408. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	119. MG/L
Chemical:	CALCIUM		
Sample Collected:	12/04/2012	Findings:	26.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/04/2012	Findings:	27.4 MG/L
Chemical:	SODIUM		
Sample Collected:	12/04/2012	Findings:	3.91 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/04/2012	Findings:	24.1 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/04/2012	Findings:	0.405 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/04/2012	Findings:	430. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/04/2012	Findings:	48.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/04/2012	Findings:	0.29 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/29/2013	Findings:	57. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/05/2013	Findings:	9.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	66.9 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/05/2013	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/05/2013	Findings:	887. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/05/2013	Findings:	6.97
Chemical:	PH, LABORATORY		
Sample Collected:	03/05/2013	Findings:	315. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/05/2013	Findings:	384. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/05/2013	Findings:	429. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/05/2013	Findings:	123. MG/L
Chemical:	CALCIUM		
Sample Collected:	03/05/2013	Findings:	29.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/05/2013	Findings:	27.2 MG/L
Chemical:	SODIUM		
Sample Collected:	03/05/2013	Findings:	4.06 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/05/2013	Findings:	27.3 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/05/2013	Findings:	0.207 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/05/2013	Findings:	350. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/05/2013	Findings:	61. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	0.19 NTU
Chemical:	TURBIDITY, LABORATORY		

A3
North
1/4 - 1/2 Mile
Higher

CA WELLS 1399

Water System Information:

Prime Station Code:	01S/11W-21G02 S	User ID:	4TH
FRDS Number:	1910038002	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Standby Raw
Source Lat/Long:	340400.0 1180200.0	Precision:	Undefined
Source Name:	WELL 02-A - STANDBY		
System Number:	1910038		
System Name:	EL MONTE-CITY, WATER DEPT.		
Organization That Operates System:	P.O. BOX 6008 EL MONTE, CA 91734		
Pop Served:	13300	Connections:	3344
Area Served:	EL MONTE		
Sample Collected:	01/04/2011	Findings:	2.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/04/2011	Findings:	0.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	2.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	1. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	6.6 MG/L
Chemical:	NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	02/01/2011	Findings:	4.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	02/01/2011	Findings:	1.5 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	4.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	1.3 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	9.41 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	14. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/01/2011	Findings:	461. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/01/2011	Findings:	7.86
Chemical:	PH, LABORATORY		
Sample Collected:	03/01/2011	Findings:	205. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/01/2011	Findings:	208. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	58.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/01/2011	Findings:	14.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/01/2011	Findings:	14.7 MG/L
Chemical:	SODIUM		
Sample Collected:	03/01/2011	Findings:	1.71 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/01/2011	Findings:	12.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/01/2011	Findings:	0.47 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/01/2011	Findings:	204. UG/L
Chemical:	IRON		
Sample Collected:	03/01/2011	Findings:	242. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/01/2011	Findings:	9.14 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/05/2011	Findings:	5.1 UG/L
Chemical:	TETRACHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	04/05/2011	Findings:	1.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	5.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	1.5 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	11. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/03/2011	Findings:	5.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/03/2011	Findings:	1.5 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	21. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	21. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/07/2011	Findings:	559. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/07/2011	Findings:	7.54
Chemical:	PH, LABORATORY		
Sample Collected:	06/07/2011	Findings:	208. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/07/2011	Findings:	253. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/07/2011	Findings:	262. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	06/07/2011	Findings:	74. MG/L
Chemical:	CALCIUM		
Sample Collected:	06/07/2011	Findings:	18.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/07/2011	Findings:	18.9 MG/L
Chemical:	SODIUM		
Sample Collected:	06/07/2011	Findings:	2.07 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/07/2011	Findings:	19.1 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/07/2011	Findings:	0.56 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/07/2011	Findings:	242. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/07/2011	Findings:	21. MG/L
Chemical:	NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/07/2011	Findings:	0.12 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/05/2011	Findings:	4.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/05/2011	Findings:	1.3 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	0.38 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07/12/2011	Findings:	3.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	25. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/02/2011	Findings:	2.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	4.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	0.9 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	18.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/06/2011	Findings:	17.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/06/2011	Findings:	514. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/06/2011	Findings:	7.67
Chemical:	PH, LABORATORY		
Sample Collected:	09/06/2011	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	09/06/2011	Findings:	244. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/06/2011	Findings:	248. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	09/06/2011	Findings:	72.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/06/2011	Findings:	16.4 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/06/2011	Findings:	16.5 MG/L
Chemical:	SODIUM		
Sample Collected:	09/06/2011	Findings:	2.22 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/06/2011	Findings:	18.2 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/06/2011	Findings:	0.35 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/06/2011	Findings:	262. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/06/2011	Findings:	17.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	10/04/2011	Findings:	3.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	5.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	1.5 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	13. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/06/2011	Findings:	3.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	16.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/06/2011	Findings:	16.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/06/2011	Findings:	509. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/06/2011	Findings:	7.03
Chemical:	PH, LABORATORY		
Sample Collected:	12/06/2011	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	244. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/06/2011	Findings:	253. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	72.4 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/06/2011	Findings:	17.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/06/2011	Findings:	17.9 MG/L
Chemical:	SODIUM		
Sample Collected:	12/06/2011	Findings:	2.18 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/06/2011	Findings:	16. MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/06/2011	Findings:	0.48 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/06/2011	Findings:	200. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/06/2011	Findings:	15.8 MG/L
Chemical:	NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	01/10/2012	Findings:	0.57 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01/10/2012	Findings:	3.1 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	01/10/2012	Findings:	2.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	21. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/10/2012	Findings:	0.927 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	02/07/2012	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	4.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	1. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	11. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	16.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/06/2012	Findings:	457. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/06/2012	Findings:	7.54
Chemical:	PH, LABORATORY		
Sample Collected:	03/06/2012	Findings:	185. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	226. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/06/2012	Findings:	217. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	62.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/06/2012	Findings:	14.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/06/2012	Findings:	14.6 MG/L
Chemical:	SODIUM		
Sample Collected:	03/06/2012	Findings:	1.77 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/06/2012	Findings:	13.2 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/06/2012	Findings:	0.48 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/06/2012	Findings:	244. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/06/2012	Findings:	11.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/03/2012	Findings:	1.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	2.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/01/2012	Findings:	2.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	2.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	26.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/05/2012	Findings:	17.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/05/2012	Findings:	626. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/05/2012	Findings:	7.54
Chemical:	PH, LABORATORY		
Sample Collected:	06/05/2012	Findings:	240. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	293. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/05/2012	Findings:	311. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	88.6 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/05/2012	Findings:	22. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/05/2012	Findings:	21. MG/L
Chemical:	SODIUM		
Sample Collected:	06/05/2012	Findings:	2.15 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/05/2012	Findings:	23.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/05/2012	Findings:	0.43 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/05/2012	Findings:	298. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/05/2012	Findings:	31.2 MG/L
Chemical:	NITRATE (AS NO3)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	07/03/2012	Findings:	3.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	4.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	0.97 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	340. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/19/2012	Findings:	14. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/07/2012	Findings:	3.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	08/07/2012	Findings:	1. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	3. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	22.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/04/2012	Findings:	579. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/04/2012	Findings:	7.43
Chemical:	PH, LABORATORY		
Sample Collected:	09/04/2012	Findings:	220. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	268. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/04/2012	Findings:	282. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	80.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/04/2012	Findings:	19.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/04/2012	Findings:	18.6 MG/L
Chemical:	SODIUM		
Sample Collected:	09/04/2012	Findings:	2.38 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/04/2012	Findings:	17.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/04/2012	Findings:	0.441 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/04/2012	Findings:	208. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/04/2012	Findings:	22.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	0.31 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10/18/2012	Findings:	2.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	4. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	0.75 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/07/2012	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	4.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	1.2 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	10. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/04/2012	Findings:	16.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/04/2012	Findings:	454. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/04/2012	Findings:	7.76
Chemical:	PH, LABORATORY		
Sample Collected:	12/04/2012	Findings:	180. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	12/04/2012	Findings:	220. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/04/2012	Findings:	228. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	12/04/2012	Findings:	67.4 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/04/2012	Findings:	14.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/04/2012	Findings:	17.2 MG/L
Chemical:	SODIUM		
Sample Collected:	12/04/2012	Findings:	2.22 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/04/2012	Findings:	11.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/04/2012	Findings:	0.409 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/04/2012	Findings:	196. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/04/2012	Findings:	9.88 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/04/2012	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/02/2013	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	4.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	1.1 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	9.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/05/2013	Findings:	2.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	2.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	20.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/05/2013	Findings:	519. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/05/2013	Findings:	7.55
Chemical:	PH, LABORATORY		
Sample Collected:	03/05/2013	Findings:	205. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/05/2013	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/05/2013	Findings:	249. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/05/2013	Findings:	70.6 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/05/2013	Findings:	17.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/05/2013	Findings:	19.6 MG/L
Chemical:	SODIUM		
Sample Collected:	03/05/2013	Findings:	2.29 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/05/2013	Findings:	15.1 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/05/2013	Findings:	0.48 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/05/2013	Findings:	310. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/05/2013	Findings:	17.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	0.13 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/02/2013	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	2.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	22. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/07/2013	Findings:	2.4 UG/L
Chemical:	TETRACHLOROETHYLENE		

A4
North
1/4 - 1/2 Mile
Higher

CA WELLS 1400

Water System Information:

Prime Station Code:	01S/11W-21H01 S	User ID:	4TH
FRDS Number:	1910038006	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	340400.0 1180200.0	Precision:	Undefined
Source Name:	WELL 10 LACFC 2972Q - INACTIVE		
System Number:	1910038		
System Name:	EL MONTE-CITY, WATER DEPT.		
Organization That Operates System:	P.O. BOX 6008		
	EL MONTE, CA 91734		
Pop Served:	13300	Connections:	3344
Area Served:	EL MONTE		
Sample Collected:	04/07/2011	Findings:	3.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	0.78 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	8.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/03/2011	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	20.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/07/2011	Findings:	512. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/07/2011	Findings:	7.72
Chemical:	PH, LABORATORY		
Sample Collected:	06/07/2011	Findings:	163. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	06/07/2011	Findings:	198. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/07/2011	Findings:	228. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	06/07/2011	Findings:	70.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/07/2011	Findings:	12.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/07/2011	Findings:	18.6 MG/L
Chemical:	SODIUM		
Sample Collected:	06/07/2011	Findings:	3.01 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/07/2011	Findings:	19.3 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/07/2011	Findings:	0.34 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/07/2011	Findings:	246. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/07/2011	Findings:	20.7 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/07/2011	Findings:	0.11 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/05/2011	Findings:	3. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/05/2011	Findings:	0.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	1.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	20. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	08/02/2011	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	2.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	0.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	15. MG/L
Chemical:	NITRATE (AS NO ₃)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/06/2011	Findings:	19.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/06/2011	Findings:	462. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/06/2011	Findings:	7.75
Chemical:	PH, LABORATORY		
Sample Collected:	09/06/2011	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	09/06/2011	Findings:	195. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/06/2011	Findings:	216. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	09/06/2011	Findings:	65.8 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/06/2011	Findings:	12.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/06/2011	Findings:	13.9 MG/L
Chemical:	SODIUM		
Sample Collected:	09/06/2011	Findings:	2.76 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/06/2011	Findings:	18.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/06/2011	Findings:	0.33 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/06/2011	Findings:	212. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/06/2011	Findings:	14.5 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	10/04/2011	Findings:	1.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	22. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/06/2011	Findings:	2.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	8.6 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/06/2011	Findings:	14.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/06/2011	Findings:	429. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/06/2011	Findings:	7.61
Chemical:	PH, LABORATORY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/06/2011	Findings:	153. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	12/06/2011	Findings:	186. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/06/2011	Findings:	206. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	12/06/2011	Findings:	62.4 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/06/2011	Findings:	12.3 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/06/2011	Findings:	12.8 MG/L
Chemical:	SODIUM		
Sample Collected:	12/06/2011	Findings:	2.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/06/2011	Findings:	13.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/06/2011	Findings:	0.34 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/06/2011	Findings:	214. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/06/2011	Findings:	8.38 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	01/10/2012	Findings:	3.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	0.71 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	9. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	02/07/2012	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	21.3 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/06/2012	Findings:	16. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/06/2012	Findings:	500. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/06/2012	Findings:	7.66
Chemical:	PH, LABORATORY		
Sample Collected:	03/06/2012	Findings:	163. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/06/2012	Findings:	198. MG/L
Chemical:	BICARBONATE ALKALINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/06/2012	Findings:	230. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	03/06/2012	Findings:	71.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/06/2012	Findings:	12.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/06/2012	Findings:	17.8 MG/L
Chemical:	SODIUM		
Sample Collected:	03/06/2012	Findings:	2.98 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/06/2012	Findings:	18.7 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/06/2012	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/06/2012	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/06/2012	Findings:	22.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/06/2012	Findings:	0.49 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/03/2012	Findings:	1.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	21. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	05/01/2012	Findings:	2.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/10/2012	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/16/2012	Findings:	2. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	24.8 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/05/2012	Findings:	17.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/05/2012	Findings:	499. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/05/2012	Findings:	7.78
Chemical:	PH, LABORATORY		
Sample Collected:	06/05/2012	Findings:	165. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/05/2012	Findings:	201. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/05/2012	Findings:	234. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	06/05/2012	Findings:	71.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/05/2012	Findings:	13.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/05/2012	Findings:	18.1 MG/L
Chemical:	SODIUM		
Sample Collected:	06/05/2012	Findings:	3.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/05/2012	Findings:	21.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/05/2012	Findings:	0.32 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/05/2012	Findings:	222. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/05/2012	Findings:	24.2 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/05/2012	Findings:	0.22 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/03/2012	Findings:	2.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	2.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	340. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/19/2012	Findings:	22. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	08/07/2012	Findings:	2.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	2.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	22.8 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/04/2012	Findings:	19. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/04/2012	Findings:	509. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/04/2012	Findings:	7.61
Chemical:	PH, LABORATORY		
Sample Collected:	09/04/2012	Findings:	165. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/04/2012	Findings:	198. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/04/2012	Findings:	239. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	09/04/2012	Findings:	74.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/04/2012	Findings:	13. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/04/2012	Findings:	17.8 MG/L
Chemical:	SODIUM		
Sample Collected:	09/04/2012	Findings:	3.05 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/04/2012	Findings:	18.2 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/04/2012	Findings:	0.318 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/04/2012	Findings:	142. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/04/2012	Findings:	21.9 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/04/2012	Findings:	0.12 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10/02/2012	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	2.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	13. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	11/07/2012	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	21.1 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/04/2012	Findings:	18.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/04/2012	Findings:	510. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/04/2012	Findings:	7.79
Chemical:	PH, LABORATORY		
Sample Collected:	12/04/2012	Findings:	190. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	232. MG/L
Chemical:	BICARBONATE ALKALINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/04/2012	Findings:	231. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	72.5 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/04/2012	Findings:	12.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/04/2012	Findings:	19.2 MG/L
Chemical:	SODIUM		
Sample Collected:	12/04/2012	Findings:	3.11 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/04/2012	Findings:	16.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/04/2012	Findings:	0.252 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/04/2012	Findings:	220. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/04/2012	Findings:	21.2 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/04/2012	Findings:	0.27 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/02/2013	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	1.9 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	32. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	02/05/2013	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	25.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/05/2013	Findings:	16.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/05/2013	Findings:	509. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/05/2013	Findings:	7.61
Chemical:	PH, LABORATORY		
Sample Collected:	03/05/2013	Findings:	165. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/05/2013	Findings:	201. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/05/2013	Findings:	235. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/05/2013	Findings:	72.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/05/2013	Findings:	13. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/05/2013	Findings:	19.3 MG/L
Chemical:	SODIUM		
Sample Collected:	03/05/2013	Findings:	3.53 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/05/2013	Findings:	17.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/05/2013	Findings:	0.303 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/05/2013	Findings:	318. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/05/2013	Findings:	21.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/02/2013	Findings:	1.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	23. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/08/2013	Findings:	2.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/08/2013	Findings:	0.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/04/2011	Findings:	3.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/04/2011	Findings:	0.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	3.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	0.93 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	8.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/01/2011	Findings:	2.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	02/01/2011	Findings:	0.8 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	2.6 UG/L
Chemical:	TETRACHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/01/2011	Findings:	7.65 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	14. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/01/2011	Findings:	427. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/01/2011	Findings:	7.85
Chemical:	PH, LABORATORY		
Sample Collected:	03/01/2011	Findings:	173. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	210. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/01/2011	Findings:	202. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	60.8 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/01/2011	Findings:	12.3 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/01/2011	Findings:	12.1 MG/L
Chemical:	SODIUM		
Sample Collected:	03/01/2011	Findings:	2.56 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/01/2011	Findings:	13.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/01/2011	Findings:	0.33 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/01/2011	Findings:	232. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/01/2011	Findings:	7.41 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/05/2011	Findings:	2.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/05/2011	Findings:	0.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	0.39 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

5
NE
1/2 - 1 Mile
Higher

FRDS PWS CA1910189

PWS ID: CA1910189
 Date Initiated: Not Reported Date Deactivated: Not Reported
 PWS Name: SAN GABRIEL VALLEY WATER CO.-MONTEBELLO
 EL MONTE, CA 91734

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

7
NNE
1/2 - 1 Mile
Higher

FED USGS USGS40000140541

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340415118014501		
Monloc name:	001S011W21H001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0708429
Longitude:	-118.0300668	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	516
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B8
North
1/2 - 1 Mile
Higher

FED USGS USGS40000140581

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340423118020101		
Monloc name:	001S011W21G001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0730651
Longitude:	-118.0345114	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	Not Reported
Construction date:	Not Reported	Wellholeddepth:	Not Reported
Welldepth units:	Not Reported		
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B9
North
1/2 - 1 Mile
Higher

FED USGS USGS40000140582

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340423118020401		
Monloc name:	001S011W21G002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0730651
Longitude:	-118.0353447	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholeddepth:	Not Reported
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

10
ESE
1/2 - 1 Mile
Higher

FED USGS USGS40000140253

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340323118011201		
Monloc name:	001S011W27F003S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0563989
Longitude:	-118.0208998	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported	Welldepth:	Not Reported
Construction date:	Not Reported	Wellholeddepth:	Not Reported
Welldepth units:	Not Reported		
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

11
NW
1/2 - 1 Mile
Lower

FED USGS USGS40000140558

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340419118024301		
Monloc name:	001S011W21F002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070105	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0719541
Longitude:	-118.0461784	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholeddepth:	Not Reported
Wellholeddepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

12
NNW
1/2 - 1 Mile
Lower

CA WELLS 1396

Water System Information:

Prime Station Code:	01S/11W-21D07 S	User ID:	4TH
FRDS Number:	1910038009	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340428.0 1180233.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 13 - ACTIVE		
System Number:	1910038		
System Name:	EL MONTE-CITY, WATER DEPT.		
Organization That Operates System:	P.O. BOX 6008		
	EL MONTE, CA 91734		
Pop Served:	13300	Connections:	3344
Area Served:	EL MONTE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/06/2011	Findings:	2.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	1.2 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	7.95 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/06/2011	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/06/2011	Findings:	400. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/06/2011	Findings:	7.83
Chemical:	PH, LABORATORY		
Sample Collected:	09/06/2011	Findings:	170. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	09/06/2011	Findings:	207. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/06/2011	Findings:	191. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	09/06/2011	Findings:	53.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/06/2011	Findings:	13.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/06/2011	Findings:	16.8 MG/L
Chemical:	SODIUM		
Sample Collected:	09/06/2011	Findings:	1.6 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/06/2011	Findings:	11. MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/06/2011	Findings:	0.72 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/06/2011	Findings:	188. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/06/2011	Findings:	7.83 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/06/2011	Findings:	0.16 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10/10/2011	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	0.96 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	1.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	0.7 UG/L
Chemical:	TRICHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/06/2011	Findings:	5.87 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/06/2011	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/06/2011	Findings:	367. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/06/2011	Findings:	7.58
Chemical:	PH, LABORATORY		
Sample Collected:	12/06/2011	Findings:	155. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	189. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/06/2011	Findings:	174. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	12/06/2011	Findings:	49. MG/L
Chemical:	CALCIUM		
Sample Collected:	12/06/2011	Findings:	12.6 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/06/2011	Findings:	17. MG/L
Chemical:	SODIUM		
Sample Collected:	12/06/2011	Findings:	1.38 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/06/2011	Findings:	7.32 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/06/2011	Findings:	0.68 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/06/2011	Findings:	154. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/06/2011	Findings:	5.77 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/06/2011	Findings:	0.15 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/10/2012	Findings:	3.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	1.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	1.5 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	1.2 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	9.03 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	14.5 C
Chemical:	SOURCE TEMPERATURE C		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/06/2012	Findings:	406. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/06/2012	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03/06/2012	Findings:	165. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/06/2012	Findings:	201. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/06/2012	Findings:	186. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	03/06/2012	Findings:	51.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/06/2012	Findings:	13.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/06/2012	Findings:	16.5 MG/L
Chemical:	SODIUM		
Sample Collected:	03/06/2012	Findings:	1.29 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/06/2012	Findings:	9.44 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/06/2012	Findings:	0.7 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/06/2012	Findings:	194. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/06/2012	Findings:	8.63 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/06/2012	Findings:	0.18 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/19/2012	Findings:	1.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	0.95 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	2.1 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	13.5 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/05/2012	Findings:	19.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/05/2012	Findings:	435. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/05/2012	Findings:	7.68
Chemical:	PH, LABORATORY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/05/2012	Findings:	178. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	06/05/2012	Findings:	217. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/05/2012	Findings:	213. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	06/05/2012	Findings:	59. MG/L
Chemical:	CALCIUM		
Sample Collected:	06/05/2012	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/05/2012	Findings:	18.2 MG/L
Chemical:	SODIUM		
Sample Collected:	06/05/2012	Findings:	1.33 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/05/2012	Findings:	12.7 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/05/2012	Findings:	0.69 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/05/2012	Findings:	198. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/05/2012	Findings:	12.5 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/05/2012	Findings:	0.12 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/19/2012	Findings:	2.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	4.9 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	350. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/19/2012	Findings:	18. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/04/2012	Findings:	2.3 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	1.5 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	6.44 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/04/2012	Findings:	18.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/04/2012	Findings:	377. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/04/2012	Findings:	7.6
Chemical:	PH, LABORATORY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/04/2012	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	09/04/2012	Findings:	195. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/04/2012	Findings:	174. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	09/04/2012	Findings:	48.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/04/2012	Findings:	12.7 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/04/2012	Findings:	15.9 MG/L
Chemical:	SODIUM		
Sample Collected:	09/04/2012	Findings:	1.432 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/04/2012	Findings:	7.17 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/04/2012	Findings:	0.741 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/04/2012	Findings:	132. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/04/2012	Findings:	6.25 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/04/2012	Findings:	0.16 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10/29/2012	Findings:	1.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	2.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	2.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	1.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	7.85 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/04/2012	Findings:	18.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/04/2012	Findings:	426. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/04/2012	Findings:	7.78
Chemical:	PH, LABORATORY		
Sample Collected:	12/04/2012	Findings:	178. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	217. MG/L
Chemical:	BICARBONATE ALKALINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/04/2012	Findings:	171. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	12/04/2012	Findings:	47.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/04/2012	Findings:	12.4 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/04/2012	Findings:	17.1 MG/L
Chemical:	SODIUM		
Sample Collected:	12/04/2012	Findings:	1.26 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/04/2012	Findings:	9.62 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/04/2012	Findings:	0.552 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/04/2012	Findings:	178. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/04/2012	Findings:	9.78 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/04/2012	Findings:	0.13 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/29/2013	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	2. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	1.1 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	7.31 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	03/05/2013	Findings:	19.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/05/2013	Findings:	382. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/05/2013	Findings:	7.74
Chemical:	PH, LABORATORY		
Sample Collected:	03/05/2013	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/05/2013	Findings:	195. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/05/2013	Findings:	174. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	03/05/2013	Findings:	48.4 MG/L
Chemical:	CALCIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/05/2013	Findings:	12.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/05/2013	Findings:	17.6 MG/L
Chemical:	SODIUM		
Sample Collected:	03/05/2013	Findings:	1.5 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/05/2013	Findings:	6.77 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/05/2013	Findings:	226. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/05/2013	Findings:	5.03 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	0.11 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/08/2013	Findings:	1.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	2.1 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	1.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	1.2 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	1.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	0.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/01/2011	Findings:	4.58 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	13. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/01/2011	Findings:	366. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/01/2011	Findings:	7.88
Chemical:	PH, LABORATORY		
Sample Collected:	03/01/2011	Findings:	173. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	210. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/01/2011	Findings:	166. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/01/2011	Findings:	47.8 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/01/2011	Findings:	11.4 MG/L
Chemical:	MAGNESIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/01/2011	Findings:	15.2 MG/L
Chemical:	SODIUM		
Sample Collected:	03/01/2011	Findings:	1.81 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/01/2011	Findings:	6.72 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/01/2011	Findings:	0.62 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/01/2011	Findings:	124. UG/L
Chemical:	IRON		
Sample Collected:	03/01/2011	Findings:	190. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/01/2011	Findings:	4.67 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/01/2011	Findings:	0.15 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/07/2011	Findings:	1.2 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	0.7 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	1.1 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	0.6 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	5.73 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/07/2011	Findings:	372. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/07/2011	Findings:	7.73
Chemical:	PH, LABORATORY		
Sample Collected:	06/07/2011	Findings:	158. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/07/2011	Findings:	192. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/07/2011	Findings:	174. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	06/07/2011	Findings:	49.9 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/07/2011	Findings:	12. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/07/2011	Findings:	17.8 MG/L
Chemical:	SODIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/07/2011	Findings:	1.29 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/07/2011	Findings:	6.99 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/07/2011	Findings:	0.74 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/07/2011	Findings:	184. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/07/2011	Findings:	5.66 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	0.16 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/12/2011	Findings:	1.4 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	0.79 UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	5.6 MG/L
Chemical:	NITRATE (AS NO3)		

C13
WNW
1/2 - 1 Mile
Lower

CA WELLS 1379

Water System Information:

Prime Station Code:	01S/11W-16M04 S	User ID:	MET
FRDS Number:	1910212008	County:	Los Angeles
District Number:	15	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	340400.0 1180300.0	Precision:	Undefined
Source Name:	GIDLEY WELL 02 - INACTIVE		
System Number:	1910212		
System Name:	SCWC-SOUTH ARCADIA		
Organization That Operates System:	P.O. BOX 9016 SAN DIMAS, CA 91773		
Pop Served:	23034	Connections:	6980
Area Served:	Not Reported		

C14
WNW
1/2 - 1 Mile
Lower

CA WELLS 1378

Water System Information:

Prime Station Code:	01S/11W-16M03 S	User ID:	MET
FRDS Number:	1910212007	County:	Los Angeles
District Number:	15	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	340400.0 1180300.0	Precision:	Undefined
Source Name:	GIDLEY WELL 01 - INACTIVE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System Number: 1910212
 System Name: SCWC-SOUTH ARCADIA
 Organization That Operates System:
 P.O. BOX 9016
 SAN DIMAS, CA 91773
 Pop Served: 23034
 Area Served: Not Reported
 Connections: 6980

C15
WNW
1/2 - 1 Mile
Lower

CA WELLS 1393

Water System Information:

Prime Station Code: 01S/11W-20B02 S	User ID: 4TH	
FRDS Number: 1910139015	County: Los Angeles	
District Number: 07	Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY	
Water Type: Well/Groundwater	Well Status: Inactive Raw	
Source Lat/Long: 340400.0 1180300.0	Precision: Undefined	
Source Name: BLUE RIBBON WELL 01 - INACTIVE		
System Number: 1910139		
System Name: CAL. AMERICAN WATER CO.-SAN MARINO		
Organization That Operates System: 2020 HUNTINGTON DRIVE SAN MARINO, CA 91108		
Pop Served: 49353	Connections: 13902	
Area Served: SAN MARINO		

C16
WNW
1/2 - 1 Mile
Lower

CA WELLS 1397

Water System Information:

Prime Station Code: 01S/11W-21F02 S	User ID: 4TH	
FRDS Number: 1910038008	County: Los Angeles	
District Number: 07	Station Type: WELL/AMBNT/MUN/INTAKE/SUPPLY	
Water Type: Well/Groundwater	Well Status: Active Raw	
Source Lat/Long: 340400.0 1180300.0	Precision: Undefined	
Source Name: WELL 12		
System Number: 1910038		
System Name: EL MONTE-CITY, WATER DEPT.		
Organization That Operates System: P.O. BOX 6008 EL MONTE, CA 91734		
Pop Served: 13300	Connections: 3344	
Area Served: EL MONTE		
Sample Collected: 01/06/2011	Findings: 6.69 PCI/L	
Chemical: GROSS ALPHA		
Sample Collected: 01/06/2011	Findings: 0.471 PCI/L	
Chemical: GROSS ALPHA COUNTING ERROR		
Sample Collected: 01/06/2011	Findings: 6.4 PCI/L	
Chemical: URANIUM (PCI/L)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	01/06/2011	Findings:	0.69 UG/L
Chemical:	CARBON TETRACHLORIDE		
Sample Collected:	01/06/2011	Findings:	21. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	39. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/06/2011	Findings:	34. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01/06/2011	Findings:	2.e-002 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	04/05/2011	Findings:	0.7 UG/L
Chemical:	CARBON TETRACHLORIDE		
Sample Collected:	04/05/2011	Findings:	17. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/05/2011	Findings:	47. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	0.65 UG/L
Chemical:	CARBON TETRACHLORIDE		
Sample Collected:	04/07/2011	Findings:	21. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	41. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/07/2011	Findings:	35. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/03/2011	Findings:	16. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/03/2011	Findings:	43. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	12. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	27. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/07/2011	Findings:	24.7 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/07/2011	Findings:	18. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/07/2011	Findings:	611. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/07/2011	Findings:	7.55
Chemical:	PH, LABORATORY		
Sample Collected:	06/07/2011	Findings:	220. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/07/2011	Findings:	268. MG/L
Chemical:	BICARBONATE ALKALINITY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	06/07/2011	Findings:	287. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	06/07/2011	Findings:	78.1 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/07/2011	Findings:	22.5 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/07/2011	Findings:	20.2 MG/L
Chemical:	SODIUM		
Sample Collected:	06/07/2011	Findings:	1.92 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/07/2011	Findings:	21.7 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/07/2011	Findings:	0.57 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/07/2011	Findings:	296. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/07/2011	Findings:	24.6 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	06/07/2011	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	07/05/2011	Findings:	14. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/05/2011	Findings:	38. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	0.46 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07/12/2011	Findings:	16. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	35. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/12/2011	Findings:	25. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	08/02/2011	Findings:	15. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	08/02/2011	Findings:	35. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	10. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	28. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/06/2011	Findings:	33.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/06/2011	Findings:	21. C
Chemical:	SOURCE TEMPERATURE C		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/06/2011	Findings:	699. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/06/2011	Findings:	7.62
Chemical:	PH, LABORATORY		
Sample Collected:	09/06/2011	Findings:	255. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	09/06/2011	Findings:	311. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/06/2011	Findings:	313. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	09/06/2011	Findings:	87.4 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/06/2011	Findings:	23.1 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/06/2011	Findings:	20.7 MG/L
Chemical:	SODIUM		
Sample Collected:	09/06/2011	Findings:	1.87 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/06/2011	Findings:	27.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/06/2011	Findings:	0.5 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/06/2011	Findings:	352. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/06/2011	Findings:	32.8 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	09/06/2011	Findings:	0.11 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10/04/2011	Findings:	14. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/04/2011	Findings:	35. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	18. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	43. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/10/2011	Findings:	36. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	12/06/2011	Findings:	14. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	34. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/06/2011	Findings:	32.1 MG/L
Chemical:	NITRATE (AS NO ₃)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/06/2011	Findings:	15. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/06/2011	Findings:	713. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/06/2011	Findings:	7.34
Chemical:	PH, LABORATORY		
Sample Collected:	12/06/2011	Findings:	263. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	12/06/2011	Findings:	320. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/06/2011	Findings:	349. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	12/06/2011	Findings:	97.3 MG/L
Chemical:	CALCIUM		
Sample Collected:	12/06/2011	Findings:	25.9 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/06/2011	Findings:	23.9 MG/L
Chemical:	SODIUM		
Sample Collected:	12/06/2011	Findings:	2.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/06/2011	Findings:	24.9 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/06/2011	Findings:	0.48 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	12/06/2011	Findings:	358. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/06/2011	Findings:	31.4 MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	01/10/2012	Findings:	0.74 UG/L
Chemical:	CARBON TETRACHLORIDE		
Sample Collected:	01/10/2012	Findings:	16. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	37. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/10/2012	Findings:	34. MG/L
Chemical:	NITRATE (AS NO ₃)		
Sample Collected:	02/07/2012	Findings:	9.6 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	02/07/2012	Findings:	21. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	12. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/06/2012	Findings:	28. UG/L
Chemical:	TRICHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/06/2012	Findings:	31.8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	17. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/06/2012	Findings:	695. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/06/2012	Findings:	7.48
Chemical:	PH, LABORATORY		
Sample Collected:	03/06/2012	Findings:	260. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	317. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/06/2012	Findings:	355. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/06/2012	Findings:	101. MG/L
Chemical:	CALCIUM		
Sample Collected:	03/06/2012	Findings:	24.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/06/2012	Findings:	23.7 MG/L
Chemical:	SODIUM		
Sample Collected:	03/06/2012	Findings:	1.68 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/06/2012	Findings:	24.8 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/06/2012	Findings:	0.47 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/06/2012	Findings:	382. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/06/2012	Findings:	32.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/06/2012	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04/03/2012	Findings:	9.7 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/03/2012	Findings:	22. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	11. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	25. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/19/2012	Findings:	30. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/01/2012	Findings:	9.9 UG/L
Chemical:	TETRACHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	05/01/2012	Findings:	23. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	13. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	30. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	06/05/2012	Findings:	34.9 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06/05/2012	Findings:	19. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	06/05/2012	Findings:	678. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06/05/2012	Findings:	7.67
Chemical:	PH, LABORATORY		
Sample Collected:	06/05/2012	Findings:	255. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	311. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06/05/2012	Findings:	337. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	06/05/2012	Findings:	95.2 MG/L
Chemical:	CALCIUM		
Sample Collected:	06/05/2012	Findings:	24.2 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06/05/2012	Findings:	23.4 MG/L
Chemical:	SODIUM		
Sample Collected:	06/05/2012	Findings:	2. MG/L
Chemical:	POTASSIUM		
Sample Collected:	06/05/2012	Findings:	27.5 MG/L
Chemical:	CHLORIDE		
Sample Collected:	06/05/2012	Findings:	0.49 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06/05/2012	Findings:	344. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06/05/2012	Findings:	32.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07/03/2012	Findings:	11. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/03/2012	Findings:	23. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	15. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	07/19/2012	Findings:	28. UG/L
Chemical:	TRICHLOROETHYLENE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	07/19/2012	Findings:	430. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/19/2012	Findings:	29. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08/07/2012	Findings:	10. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	08/07/2012	Findings:	24. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	11. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	23. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	09/04/2012	Findings:	31.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	20.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	09/04/2012	Findings:	670. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09/04/2012	Findings:	7.35
Chemical:	PH, LABORATORY		
Sample Collected:	09/04/2012	Findings:	250. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	305. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09/04/2012	Findings:	329. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	09/04/2012	Findings:	92.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	09/04/2012	Findings:	23.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09/04/2012	Findings:	21.7 MG/L
Chemical:	SODIUM		
Sample Collected:	09/04/2012	Findings:	1.822 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09/04/2012	Findings:	22.7 MG/L
Chemical:	CHLORIDE		
Sample Collected:	09/04/2012	Findings:	0.51 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09/04/2012	Findings:	268. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09/04/2012	Findings:	29.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09/04/2012	Findings:	0.11 NTU
Chemical:	TURBIDITY, LABORATORY		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	10/18/2012	Findings:	10. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/18/2012	Findings:	21. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	13. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	33. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	10/29/2012	Findings:	31. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/07/2012	Findings:	12. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	11/07/2012	Findings:	26. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	9.8 UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	24. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	12/04/2012	Findings:	26.6 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/04/2012	Findings:	18.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	12/04/2012	Findings:	671. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	12/04/2012	Findings:	7.67
Chemical:	PH, LABORATORY		
Sample Collected:	12/04/2012	Findings:	250. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	12/04/2012	Findings:	305. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	12/04/2012	Findings:	325. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	12/04/2012	Findings:	92. MG/L
Chemical:	CALCIUM		
Sample Collected:	12/04/2012	Findings:	23. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	12/04/2012	Findings:	23.7 MG/L
Chemical:	SODIUM		
Sample Collected:	12/04/2012	Findings:	1.71 MG/L
Chemical:	POTASSIUM		
Sample Collected:	12/04/2012	Findings:	21.3 MG/L
Chemical:	CHLORIDE		
Sample Collected:	12/04/2012	Findings:	0.405 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	12/04/2012	Findings:	318. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	12/04/2012	Findings:	28. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12/04/2012	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/02/2013	Findings:	10. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/02/2013	Findings:	24. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	14. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	30. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	01/29/2013	Findings:	32. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02/05/2013	Findings:	12. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	02/05/2013	Findings:	27. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	11. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	25. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	03/05/2013	Findings:	32.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/05/2013	Findings:	19.5 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/05/2013	Findings:	665. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/05/2013	Findings:	7.54
Chemical:	PH, LABORATORY		
Sample Collected:	03/05/2013	Findings:	250. MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/05/2013	Findings:	305. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03/05/2013	Findings:	326. MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/05/2013	Findings:	90.7 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/05/2013	Findings:	24.1 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/05/2013	Findings:	23. MG/L
Chemical:	SODIUM		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/05/2013	Findings:	1.98 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/05/2013	Findings:	21.4 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/05/2013	Findings:	0.415 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03/05/2013	Findings:	386. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/05/2013	Findings:	28.5 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04/02/2013	Findings:	13. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/02/2013	Findings:	36. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	15. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	37. UG/L
Chemical:	TRICHLOROETHYLENE		
Sample Collected:	04/08/2013	Findings:	31. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/08/2013	Findings:	12. UG/L
Chemical:	TETRACHLOROETHYLENE		
Sample Collected:	05/08/2013	Findings:	26. UG/L
Chemical:	TRICHLOROETHYLENE		

C17
WNW
1/2 - 1 Mile
Lower

CA WELLS 1394

Water System Information:

Prime Station Code:	01S/11W-20B04 S	User ID:	4TH
FRDS Number:	1910139016	County:	Los Angeles
District Number:	07	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Inactive Raw
Source Lat/Long:	340400.0 1180300.0	Precision:	Undefined
Source Name:	BLUE RIBBON WELL 02 - INACTIVE		
System Number:	1910139		
System Name:	CAL. AMERICAN WATER CO.-SAN MARINO		
Organization That Operates System:	2020 HUNTINGTON DRIVE SAN MARINO, CA 91108		
Pop Served:	49353	Connections:	13902
Area Served:	SAN MARINO		

18
East
1/2 - 1 Mile
Higher

FED USGS USGS40000140378

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340344118005901		
Monloc name:	001S011W26D002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070106	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.062232
Longitude:	-118.0172886	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

NNE
1/2 - 1 Mile

OIL_GAS CAOG9A000033559

Districtnu:	1	Apinumber:	03705964
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Chevron U.S.A. Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	21		
Township:	01S	Range:	11W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.074377		
Glong:	-118.030499		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Ferris	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000033559

2

SSE
1/2 - 1 Mile

OIL_GAS CAOG9A000031681

Districtnu:	1	Apinumber:	03705476
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Hillman-Long, Inc.		
Countyname:	Los Angeles	Fieldname:	Any Field
Areaname:	Any Area		
Section:	28		
Township:	01S	Range:	11W
Basemeridi:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Glat:	34.049693		
Glong:	-118.030435		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Mullholand	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	PDH	Site id:	CAOG9A000031681

3

South
1/2 - 1 Mile

OIL_GAS CAOG9A000031672

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Districtnu:	1	Apinumber:	03705923
Blmwell:	N	Redrillcan:	Not Reported
Dryhole:	N	Wellstatus:	P
Operatorna:	Margaret L. Slaughter	Fieldname:	Any Field
Countyname:	Los Angeles	Range:	11W
Areaname:	Any Area	Elevation:	Not Reported
Section:	28		
Township:	01S		
Basemeridi:	SB		
Locationde:	Not Reported		
Glat:	34.048174		
Glong:	-118.033302		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Slaughter	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	12/30/1899
Welldeptha:	Not Reported	Redrillfoo:	Not Reported
Abandonedd:	//	Completion:	//
Gissymbol:	POG	Site id:	CAOG9A000031672

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
91733	1	0

Federal EPA Radon Zone for LOS ANGELES County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX C
SUPPLEMENTAL ENVIRONMENTAL DATABASE REPORTS

El Monte

2806 Tyler Avenue and 11006-11028 Garvey Avenue
South El Monte, CA 91733

Inquiry Number: 3721288.6
September 09, 2013

The EDR-City Directory Abstract

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2012. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2012	Cole Information Services	X	X	X	-
2007	Cole Information Services	-	X	X	-
2006	Haines Company	-	-	-	-
	Haines Company	-	X	X	-
	Haines Company	X	-	X	-
	Haines Company	X	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	-	-	-	-
2000	Haines & Company	-	-	-	-
1999	Haines Company	-	-	-	-
	Haines Company	-	X	X	-
	Haines Company	X	-	X	-
	Haines Company	X	X	X	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	-	-	-
	Pacific Bell	-	X	X	-
	Pacific Bell	X	-	X	-
	Pacific Bell	X	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	X	X	-
1985	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
	Pacific Bell Telephone	-	X	X	-
	Pacific Bell Telephone	X	X	X	-
1981	Pacific Telephone	-	X	X	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1981	Pacific Telephone	X	X	X	-
1980	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1976	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1975	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1970	Pacific Telephone	-	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	-	-	-
1966	Pacific Telephone	-	-	-	-
	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	-	X	-
	Pacific Telephone	X	X	X	-
1965	Pacific Telephone	-	-	-	-
1964	Pacific Telephone	-	X	X	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	X	X	-
1958	Pacific Telephone	-	-	-	-
1957	Pacific Telephone	-	X	X	-
1956	R. L. Polk & Co.	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	X	X	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	R. L. Polk & Co.	-	-	-	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Los Angeles Directory Co.	-	-	-	-
1946	Los Angeles Directory Co.	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1937	Los Angeles Directory Co.	-	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

MAP INFORMATION

The Overview Map provides information on nearby property parcel boundaries. Properties on this map that were selected for research are listed below the map.



SELECTED ADDRESSES

The following addresses were selected by the client. Detailed findings are contained in the findings section. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
2806 Tyler Avenue and 11006-11028 Garvey Avenue	Map ID: 1	
2807 CONSOL AVE	Map ID: 10	X
11048 GARVEY AVE	Map ID: 13	X
2817 TYLER AVE	Map ID: 15	X
10968 GARVEY AVE	Map ID: 17	X
2728 TYLER AVE	Map ID: 2	X
11017 DODSON ST # 11039	Map ID: 3	X

EXECUTIVE SUMMARY

Address

2806 Tyler Avenue and 11006-11028 Garvey Avenue

Type

Map ID: 4

Findings

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

2806 Tyler Avenue and 11006-11028 Garvey Avenue
South El Monte, CA 91733

FINDINGS DETAIL

Target Property research detail.

2806 Tyler Avenue and 11006-11028 Garvey Avenue

2806 Tyler Avenue and 11006-11028 Garvey Avenue

<u>Year</u>	<u>Uses</u>	<u>Source</u>
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GARVEY

11022 GARVEY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1971	WOOLVERTON & SONS INC	Pacific Telephone

GARVEY AVE

11010 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Grand View Video Inc	Pacific Bell

11012 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	LEECO TRANSMISSION EXCHANGE	Haines Company

11022 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CENTER	Haines Company
	CO LEECO	Haines Company
	EXCHANGE SUSAMIGOSAUTO	Haines Company
	LEETRANSMISSION	Haines Company
	TRANSMISSION	Haines Company
1999	CAR COUNTRY	Haines Company
1995	DIAMOND MOTORS	Pacific Bell
1985	CROWN TRANSMISSION EXCHANGE	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	HOUSE OF CREDIT AUTO SALES	Pacific Bell
	MELI BOB	Pacific Bell
1980	VOLKSWAGEN COACH WORKS GARVEY AVE EL MONTE	Pacific Telephone
	WOLVERTON & SONS ING GARVEY AVE EL MONTE	Pacific Telephone
	WOOLVERTON & SONS INC GARVEY AVE EL MONTE	Pacific Telephone
1976	WOOLVERTON & SONS INC	Pacific Telephone
1975	VOLKSWAGEN COACH WORKS	Pacific Telephone
	WOLVERTON & SONS INC	Pacific Telephone
	WOOLVERTON & SONS INC	Pacific Telephone
1966	WOLVERTON & SONS INC	Pacific Telephone
	WOOLVERTON & SONS INC	Pacific Telephone

TYLER AVE

2806 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	HAI NAM ASSOCIATION	Cole Information Services
2006	HOWLAND ELC	Haines Company
	WHSLCO	Haines Company
1990	HOWLAND ELECTRIC WHSLE CO EL MONTE	Pacific Bell
1986	HOWLAND ELECTRIC WHSLE CO EL MONTE	Pacific Bell
1985	HOWLAND ELECTRIC WHSLE CO	Pacific Bell
1981	HOWLAND ELECTRIC WHSLE CO EL MONTE	Pacific Telephone
1980	HOWLAND ELECTRIC WHSLE CO TYLER AVE EL MONTE	Pacific Telephone
1976	Howland Electric Whsle Co	Pacific Telephone

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

CONCERT

11024 CONCERT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	SAN GABRIEL VALLEY PUBLIC SCHOOLS CREDIT UNION	Pacific Bell

11110 CONCERT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Gomez M	Pacific Bell
	Gomer M A	Pacific Bell
	Gomez M K Whit	Pacific Bell

11120 CONCERT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Debuck Nina	Pacific Bell

11130 1/2 CONCERT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	MARGARET IRENE	Pacific Bell

11134 CONCERT

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Kronhelmer Louis	Pacific Bell
	O Kronick Bernhardt L	Pacific Bell

CONCERT ST

11008 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HEALING WATERS ASSEMBLY EL MONTE	Pacific Telephone
1966	HEALING WATERS ASSEMBLY	Pacific Telephone

11014 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	MCEUEN DONALD W	Pacific Telephone

FINDINGS

11016 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	MARISCOS LA BUCANA	Cole Information Services
2007	MARISCOS LA BUCANA	Cole Information Services
2006	MAR 11 SCOS LA BUCANA	Haines Company Haines Company
1995	Delicias Del Mar Deliduka Mark & Isabel	Pacific Bell Pacific Bell
1980	EL COMAL FOOD CONCERT ST EL MONTE	Pacific Telephone

11016 1/2 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	LLAMAS MANUEL	Pacific Bell
1980	GUERRA GILBERT CONCERT ST EL MONTE	Pacific Telephone

11024 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	S GV Public Schools Credit Union	Pacific Bell
1985	SAN GABRIEL VALLEY PUBLIC SCHOOLS CREDIT UNION SGV PUBLIC SCHOOLS CREDIT UNION	Pacific Bell Pacific Bell
1980	SGV PUBLIC SCHOOLS CREDIT UNION CONCERT ST EL MONTE SAN GABRIEL VALLEY PUBLIC SCHOOLS CREDIT UNION CONCERT ST EL MONTE	Pacific Telephone Pacific Telephone
1975	SAN GABRIEL VALLEY PUBLIC SCHOOLS CREDIT UNION SGV PUBLIC SCHOOLS CREDIT UNION EL MONTE UNION HIGH SCHOOL DIST TEACHERS ASSN	Pacific Telephone Pacific Telephone Pacific Telephone
1960	EL MONTE UNION HIGH SCHOOL DIST ADMINISTRATION OFCS	Pacific Telephone
1957	FENN LUTHER	Pacific Telephone

11032 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	MUSIC & NOVELTY SHOP	Pacific Telephone

11036 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	NEWMAN MICHAEL J	Pacific Telephone

FINDINGS

11038 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LOZAAiejandro	Haines Company
1960	BARK JOYCE	Pacific Telephone

11042 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	VELASQUEZMar	Haines Company
1980	BAER DEVELOPMENT CONCERT ST EL MONTE	Pacific Telephone
1966	MILLER RICHARD B	Pacific Telephone
1957	STEVENS BETTY	Pacific Telephone

11042 1/2 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	CARDENAS JAIME	Pacific Bell
1975	TARANGO JOSE JR	Pacific Telephone

11044 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LOZANOPedo	Haines Company
1966	DEBUCK TILLIE	Pacific Telephone

11046 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	DE BUCK NINA M	Pacific Telephone
	DE BUCK WILLLE	Pacific Telephone
1957	WRIGHT HARVEY I	Pacific Telephone

11110 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WAKAMATZURobert	Haines Company
1995	Avila Elvira	Pacific Bell
1985	ARTEAGA RICK J	Pacific Bell
1980	NAVARRO J GUADALUPE ARTEAGA CONCERT ST EL MONTE	Pacific Telephone
1975	KINGTON OSCAR	Pacific Telephone
1960	EPLING JACK N	Pacific Telephone

11112 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SANCHEZAorinia	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	BERMUDEZ PABLO	Pacific Bell
1980	BERMUDEZ PABLO CONCERT ST EL MONTE	Pacific Telephone
1975	LAWHORN VIRGIL I	Pacific Telephone
1960	WILSON JOHN P	Pacific Telephone
1957	WILSON JOHN P	Pacific Telephone

11112 1/2 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ULTRERAS AURELIA	Pacific Bell

11114 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MARTINEZBertha	Haines Company
1957	STOKES ALBERTA M	Pacific Telephone

11116 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BERMUDEZElena	Haines Company
	AVILAInna	Haines Company
1975	CHARLSON CLIFTON D	Pacific Telephone

11118 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	DIAZ RODNEY	Pacific Telephone

11120 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	DEBUCK Nb	Haines Company
1995	Debuck Nina	Pacific Bell
	DEBUCK NINA	Pacific Bell
1980	DE BUCK NINA M CONCERT ST EL MONTE	Pacific Telephone
	DE BUCK WILLIE CONCERT ST EL MONTE	Pacific Telephone
1975	DE BUCK NINA M	Pacific Telephone
	DE BUCK WILLIE	Pacific Telephone
1960	TELLES ROBT	Pacific Telephone

11126 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LOPEZJames	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MENCO INC	Pacific Telephone
1966	MENCO INC	Pacific Telephone

11130 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OCC	Haines Company
1985	RIVERA KATHERINE	Pacific Bell
1980	RIVERA KATHERINE CONCERT ST EL MONTE	Pacific Telephone
1975	RIVERA KATHERINE	Pacific Telephone
1966	RIVERA KATHERINE	Pacific Telephone
1957	WEATHERFORD ROBT	Pacific Telephone

11130 1/2 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	CROSBIE THOS K	Pacific Telephone

11132 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	Jazn Ine	Haines Company
	MEDRANOJame	Haines Company
	MEDRANO Maria	Haines Company
1985	EL-HINN LILLIAN	Pacific Bell
1975	SATTERFIELD MYRTLE	Pacific Telephone

11134 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	00 C	Haines Company
1985	KRONHEIMER LOUIS	Pacific Bell
1980	KRONHEIMER LOUIS CONCERT ST EL MONTE	Pacific Telephone
1975	CHATTERTON L	Pacific Telephone
1960	APPLEBY MINA	Pacific Telephone
1957	BREWER AL	Pacific Telephone

11138 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company
1985	HERNANDEZ GUADALUPE	Pacific Bell
1960	BEAN JACK	Pacific Telephone

FINDINGS

11138 1/2 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HARRIS D	Pacific Telephone
1966	HATHAWAY MARY	Pacific Telephone

11140 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CASTANON Manrae	Haines Company
1975	JONES CECIL	Pacific Telephone
	JONES EMELDA BARNETT MRS	Pacific Telephone
1966	JONES EMELDA BARNETT MRS	Pacific Telephone
	JONES CECIL	Pacific Telephone
1960	BARNETT H R	Pacific Telephone
1957	BARNETT H R	Pacific Telephone

11142 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ODD	Haines Company
1975	DE BUCK TILLIE	Pacific Telephone

11144 CONCERT ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PIERCE ROBT L	Pacific Telephone
1957	PIERCE ROBT L	Pacific Telephone

CONSOL AVE

2720 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	SYLVESTER M CONSOL AVE EL MONTE	Pacific Telephone
1975	SYLVESTER M	Pacific Telephone
1966	AGCAWILI CARLOS	Pacific Telephone
1960	CROSSEN JAS	Pacific Telephone
1957	CROSSEN JAS	Pacific Telephone

2722 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company
1980	CUPIDO R CONSOL AVE EL MONTE	Pacific Telephone
1966	CUPIDO R	Pacific Telephone
1960	CUPIDO R	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	MILLER BERNARD M	Pacific Telephone
2788 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHU Kwong	Haines Company
1995	Chu Kwong Yuen	Pacific Bell
	CHU KWONG YUEN	Pacific Bell
2790 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	HUANG Wan	Haines Company
1995	ZENG XLONG QIN	Pacific Bell
	Zeng Xlong Qin	Pacific Bell
2792 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BI Zhanhong	Haines Company
	Di Zhanhong	Haines Company
2794 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	KSF INTERNATIONAL CO	Cole Information Services
2006	TSEMan Jay	Haines Company
	TSEWei Oin	Haines Company
2796 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	a SO Federick	Haines Company
2798 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	LE Hoai Chau Thuong	Haines Company
	PHAN Hero	Haines Company
2800 CONSOL AVE		
<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	GEE Bo	Haines Company
1960	A B C MATTRESS & UPHOLSTRNG CO	Pacific Telephone
	BUCKALLEW C E A B C MATTRESS & UPHOLSTRNG CO	Pacific Telephone
	A B C UPHOLSTRNG & MATTRESS CO	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	A B C MATTRESS & UPHOLSTRNG CO	Pacific Telephone
	A B C UPHOLSTRNG & MATTRESS CO	Pacific Telephone
	BUCKALLEW C E A B C MATTRESS & UPHOLSTROG CO	Pacific Telephone

2802 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHIEM Dung	Haines Company
1995	Lee Shan Tung	Pacific Bell

2804 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHENG Nancy	Haines Company
1966	HAWKINS L F	Pacific Telephone
1960	BONESTEEL J A	Pacific Telephone
	BONESTEEL MARY	Pacific Telephone

2806 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WANGWei	Haines Company
1995	Wang Wen Pihn	Pacific Bell
	Wang Won Kang	Pacific Bell
	WANG WON KANG	Pacific Bell

2807 CONSOL AVE

Map ID: 10

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	FARIAS Maria	Haines Company
1975	SKINNER BOB	Pacific Telephone
1966	SKINNER BOB	Pacific Telephone
1960	SKINNER BOB	Pacific Telephone
1957	SKINNER BOB	Pacific Telephone

2808 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONG Cheung	Haines Company

2810 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHOW Charles	Haines Company
	GAN Shao Xian	Haines Company
	LI Fhi	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MAOWen	Haines Company
	NGUYEN Tuan	Haines Company
	E WOOMing Lam	Haines Company
	YIHuei	Haines Company
1995	Chow Charles	Pacific Bell
	Yu Randy	Pacific Bell
	GAN SHAO-XIAN	Pacific Bell
	YU RANDY	Pacific Bell
	YU RANDY	Pacific Bell
	WOO MING LAM	Pacific Bell
	CHOW CHARLES	Pacific Bell
	Gan Shao Xian	Pacific Bell
1966	DEWEGELI THELMA I	Pacific Telephone

2811 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHAN Leung Chou	Haines Company
	CHEUNG Joyce	Haines Company
	CHU Slu	Haines Company
	HUA Quang	Haines Company
	LAMDieu	Haines Company
	LOIKiu	Haines Company
	V YUEFai	Haines Company
1995	CHAN LEUNG CHOU	Pacific Bell
	HUA QUANG	Pacific Bell
	WAT GEORGE	Pacific Bell
	Chan Leung Chou	Pacific Bell
	Hua Quang	Pacific Bell
	Wat George	Pacific Bell
1985	Watin	Pacific Bell
	CHANG PAO CHOK	Pacific Bell
	THAN NGANH	Pacific Bell
1960	BRAFFORD CYNTHIA MRS	Pacific Telephone

2813 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BRIGHTKRITE FRANK H	Pacific Telephone
1966	REIFSNYDER DAVID T	Pacific Telephone
1960	CAMFIELD GLEN	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	CAMFIELD GLEN	Pacific Telephone

2814 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DEWEGEIL CARL EL MONTE	Pacific Telephone
1966	DEWEGELI EUGENE	Pacific Telephone
1960	DEWEGELI EUGENE	Pacific Telephone
1957	DEWEGELI EUGENE	Pacific Telephone

2815 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	YUEN Ping	Haines Company
	WEI Xing	Haines Company
	GONZALEZ Martin	Haines Company
	HUJun Quan	Haines Company
	INGRAMYen	Haines Company
	PHAMNuoi	Haines Company
	TSUI Lynn	Haines Company
	VONG Van Bao	Haines Company
1985	GOMEZ ELIO	Pacific Bell
	SMITH LARRY D	Pacific Bell
	TRAN HUNG N	Pacific Bell
1975	OTTEN ANNE	Pacific Telephone
1966	OTTEN ANNE	Pacific Telephone
1957	OTTEN ANNE	Pacific Telephone

2816 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CORTES Modesto	Haines Company
	AGUILARAvila	Haines Company
1985	SANDOVAL ANNA	Pacific Bell
1980	CARRILLO JOSE TRINIDAD CONSOL AVE EL MONTE	Pacific Telephone
	FERNANDEZ HENRY CONSOL AVE EL MONTE	Pacific Telephone
	GONZALEZ MIGUEL CONSOL AVE EL MONTE	Pacific Telephone
	RAMOS CONSUELO CONSOL AVE EL MONTE	Pacific Telephone
	SCHWARTZ FRANK O CONSOL AVE EL MONTE	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	ALVARADO RICARDO CONSOL AVE EL MONTE	Pacific Telephone
1975	GARCIA PHILLIP A HERNANDEZ SEVERIANO	Pacific Telephone Pacific Telephone
1966	CHAVEZ RAFAEL HODGES MALCOLM D	Pacific Telephone Pacific Telephone

2817 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	WONG Man TO Phu Quoc SIT Sammy MAI Vu Maia LAM Chun Y BING Xia CHUNFal KEOWNHany	Haines Company Haines Company Haines Company Haines Company Haines Company Haines Company Haines Company Haines Company
1995	CHAU KAI Chau Kai Lam Chun Y Lam Chung HUANO G YOSHI	Pacific Bell Pacific Bell Pacific Bell Pacific Bell Pacific Bell
1985	CHAO M HUYNH DON BOI TSAO CHEN YU	Pacific Bell Pacific Bell Pacific Bell

2818 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SANCHEZRuben MONTANOKada	Haines Company Haines Company
1995	Carba al Mark Carte al Maria Elena CARTE AL MARIA ELENA Guevara Sonia	Pacific Bell Pacific Bell Pacific Bell Pacific Bell
1985	TSUI TAK CHI EL MONTE	Pacific Bell
1980	TSUI TAK CHI CONSOL AVE EL MONTE	Pacific Telephone
1957	SEIDEL ROBT M	Pacific Telephone

FINDINGS

2818 1/2 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	RODRIGUEZ EMMA	Pacific Bell
1980	PADILLA ARTURO RUIZ CONSOL AVE EL MONTE	Pacific Telephone
1975	GUTIERREZ IRINEO	Pacific Telephone

2818 3/4 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	HORSFIELD RICHARD A	Pacific Telephone

2820 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	PICON Mares Diego	Haines Company
	Juan SUAREZ Teresa	Haines Company

2820 1/2 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	TRAN ANAHEIMN	Pacific Bell
1966	THORPE CIEO E	Pacific Telephone
1960	GRACEY JIM	Pacific Telephone

2821 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	CHANG MING TRADE	Cole Information Services
	HEALTH THERAPY CENTER	Cole Information Services
2006	APARTMENTS	Haines Company
	CAO Steven	Haines Company
	CAO William	Haines Company
	CAO Zhen Qing	Haines Company
	JINKang	Haines Company
	LEEHon	Haines Company
	LI Jinkang	Haines Company
	LIANG Samuel	Haines Company
	TRUONGVan	Haines Company
	WANG Ning	Haines Company
	YOUNG Enca	Haines Company
	YOUNG GEOFFREY	Haines Company
1995	Lam K	Pacific Bell
1985	SEPULVEDAMARTHA	Pacific Bell
	VERGARA LOUIS	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	WHEELER B A	Pacific Telephone
1966	WHEELER B A	Pacific Telephone
1960	WHEELER B A	Pacific Telephone
1957	ATWOOD DON	Pacific Telephone

2822 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	TRUONG BINH V	Pacific Bell
1975	ARRIOLA ERNESTO	Pacific Telephone

2828 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company
	ROCHIN Jose	Haines Company
	REYESBerin	Haines Company
	POLONIO Antonia	Haines Company
	MORENO Guadalupe	Haines Company
	MORALES Karina	Haines Company
	MONTES Guillemno	Haines Company
	A CUENCASalome	Haines Company
	BELTRAN Sandoval	Haines Company
1995	I Aguilar Martin M	Pacific Bell
	AGUIRREJOSE	Pacific Bell
	AGUILAR MARTIN M	Pacific Bell
1985	RAMIREZ MAGDALENA	Pacific Bell
	ANDRADA FRANCISCO	Pacific Bell
1980	CASTILLO HENRY CONSOL AVE EL MONTE	Pacific Telephone
	CASTRO SALVADOR ROMERO CONSOL AVE EL MONTE	Pacific Telephone
	DELGADO FERNANDO CONSOL AVE EL MONTE	Pacific Telephone
	BERNAL LUIS R CONSOL AVE EL MONTE	Pacific Telephone
	MEJIA OBDULIO M CONSOL AVE EL MONTE	Pacific Telephone
1966	SPRUITENBURG B R	Pacific Telephone
	SMITH SONNY	Pacific Telephone
	SADLER TWILA M	Pacific Telephone
	MEHTA PRATAP	Pacific Telephone
	COOK LINDA	Pacific Telephone
1960	JENSEN GESINE	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	JENSEN GESINE	Pacific Telephone

2829 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ROBLESGerardo	Haines Company
	ORTIZPablo	Haines Company
1995	CHRLSMAN DC	Pacific Bell
	Chrlsman DC	Pacific Bell
1985	THALLAS GUS	Pacific Bell
	AGUIRRE ROSS J	Pacific Bell
	CHRISMAN D C	Pacific Bell
1980	CHRSSNAN D C CONSOL AVE EL MONTE	Pacific Telephone
	RENFRO E CONSOL AVE EL MONTE	Pacific Telephone
	MCCANN CARL L CONSOL AVE EL MONTE	Pacific Telephone
1975	WELLIVER ORA D	Pacific Telephone
	SMITH L BEATTY	Pacific Telephone
	RUSSELL ANN MRS	Pacific Telephone
	LITTLE ISABEIL	Pacific Telephone
	LEONARD BONNIE M	Pacific Telephone
	HOWELL ROSE	Pacific Telephone
	HARE MARGARET E	Pacific Telephone
	CHRISMAN DC	Pacific Telephone
	BRODINE JOHN V	Pacific Telephone
1966	WHEELER S TRAILER COURT	Pacific Telephone
	WELLIVER DRA D	Pacific Telephone
	SMITH L BEATTY	Pacific Telephone
	PAUL ETHEL	Pacific Telephone
	MEDINA MANUEL L	Pacific Telephone
	LITTLE FLOYD	Pacific Telephone
	HARRIS CYRUS	Pacific Telephone
	HARE MARGARET E	Pacific Telephone
1960	HOOD HENRY G	Pacific Telephone
	MUSE JESSE V	Pacific Telephone
	WHEELER S TRAILES COURT	Pacific Telephone
1957	BEAVERS PAUL E	Pacific Telephone
	PELLETIER OVILA J	Pacific Telephone
	STOKER HAZEL	Pacific Telephone
	WHEELER S TRAILER COURT	Pacific Telephone

FINDINGS

2835 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company
1985	PEREZ BRENDA	Pacific Bell
1966	SWEETEN MAUDE P WHEELER B A	Pacific Telephone Pacific Telephone
1960	WHEELER GRACE MRS	Pacific Telephone
1957	WHEELER GRACE MRS	Pacific Telephone

2847 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	MIRROR-NEWS CIRCULATION DLRS ALHAMBRA SAN GABRIEL & SAN MARINO	Pacific Telephone

3008 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	COIN WASHER RENTAL CO EL MONTE	Pacific Telephone

3014 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company

3019 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	AUTO RADIATOR	Haines Company
1985	WAYNES FOUR WHEEL DRIVE GOFF WAYNE AUTOMOTIVE REPAIR	Pacific Bell Pacific Bell
1980	GOFF WAYNE AUTOMOTIVE REPAIR CONSOL AVE EL MONTE WAYNES FOUR WHEEL DRIVE CONSOL AVE EL MONTE	Pacific Telephone Pacific Telephone
1975	GOFF WAYNE AUTOMOTIVE REPAIR EL MONTE	Pacific Telephone
1970	LONGO LEASING & RENTAL LONGO LEASING & RENTAL LONGO LEASING & RENTAL	Pacific Telephone Pacific Telephone Pacific Telephone

3024 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	HERMOSILLO EMILIO	Pacific Bell
1980	MEDRANO JOSE CONSOL AVE EL MONTE	Pacific Telephone
1975	DIGMAN BERNARD	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	CLARK OLIVE C	Pacific Telephone

3028 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	GALVAN Carmelo	Haines Company
1966	LEMKE EDW W	Pacific Telephone

3030 CONSOL AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	MEDRANO JOSE	Pacific Bell
1980	RIVAS LUIS C CONSOL AVE EL MONTE	Pacific Telephone
1966	BACON SHELDON	Pacific Telephone
	BACON AUDREY	Pacific Telephone

DODSON ST

11008 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	RAMOS ROBERTO SOLIS DODSON ST EL MONTE	Pacific Telephone

11017 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	WEIDAMAN DAVID	Pacific Bell
	GOMEZ JOSE	Pacific Bell
	TRUS1ER LEE	Pacific Bell
	NEWTON WM MILTON	Pacific Bell
1980	NAGY ALEXANDER G DODSON ST EL MONTE	Pacific Telephone
	NEWTON WM MILTON DODSON ST EL MONTE	Pacific Telephone
	SAYLE CLIFFORD T & MAYBELLE M DODSON ST EL MONTE	Pacific Telephone
	SCHULTZ HOWARD G DODSON ST EL MONTE	Pacific Telephone
	SHEKS J DODSON ST EL MONTE	Pacific Telephone
	SYLVA ALBERT DODSON ST EL MONTE	Pacific Telephone
	MORROW GEO E DODSON ST EL MONTE	Pacific Telephone
	HRABAC L DODSON ST EL MONTE	Pacific Telephone
	GOODRICH VIRGIL G DODSON ST EL MONTE	Pacific Telephone
	DAVIES L DODSON ST EL MONTE	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	CURTIS ROSE DODSON ST EL MONTE	Pacific Telephone
	CROWELL HOLLIS A JR DODSON ST EL MONTE	Pacific Telephone
	BRAY W L DODSON ST EL MONTE	Pacific Telephone
	BRAY JOHN DODSON ST EL MONTE	Pacific Telephone
	HAYGOOD CALLIE DODSON ST ROWLAND HIEGHTS	Pacific Telephone
	TATE ERNEST DODSON ST EL MONTE	Pacific Telephone

11024 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	TORRES JESUS	Pacific Bell
1980	MARTINEZ L R DODSON ST EL MONTE	Pacific Telephone

11028 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	MEZA MARTHA DODSON ST EL MONTE	Pacific Telephone

11032 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	MONTESLON LSLSLAD DIOIS	Pacific Bell

11033 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	VESTCHARLESR	Pacific Bell
	MICHEL H W	Pacific Bell
1980	BUCHHOLZ DONALD DODSON ST EL MONTE	Pacific Telephone
	GLEN ELM MOBILE PARK DODSON ST EL MONTE	Pacific Telephone
	MORGAN CLIFFORD L REV DODSON ST EL MONTE	Pacific Telephone
	RILEY BETTY DODSON ST EL MONTE	Pacific Telephone
	SONNER CALVIN M DODSON ST EL MONTE	Pacific Telephone

11039 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	PERSONETTE CHAS V DODSON ST EL MONTE	Pacific Telephone

FINDINGS

11041 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	CHAU T VUONG	Pacific Bell
1980	MILLER JANET DODSON ST EL MONTE	Pacific Telephone

11044 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	ROJAS CARMEN DODSON ST EL MONTE	Pacific Telephone

11046 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	RODRIGUEZ JESUS DODSON ST EL MONTE	Pacific Telephone

11048 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	OLERRENDAVID	Pacific Bell

11100 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	LEMUS GONZALO ESCATEL	Pacific Bell

11106 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	TORRES WM CH DODSON ST EL MONTE	Pacific Telephone

11108 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	YANES ARMANDO DODSON ST EL MONTE	Pacific Telephone

11110 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	DELGADO RAMON DODSON ST EL MONTE	Pacific Telephone

11111 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	RODRIGUEZ MAURO	Pacific Bell
1980	SLAKTER M DODSON ST EL MONTE	Pacific Telephone

FINDINGS

11113 3/4 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	MUNORTRINIDAD	Pacific Bell

11114 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	JUAREZ RUBEN	Pacific Bell
1985	ALCALA JOSE	Pacific Bell
1980	CABRERA CANDELARIO MARIN DODSON ST EL MONTE	Pacific Telephone

11115 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	ALVAREZ MARY DODSON ST EL MONTE	Pacific Telephone

11116 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	MORENO ANA RUTH	Pacific Bell

11118 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	HERNANDEZ ENRIQUE R DODSON ST EL MONTE	Pacific Telephone

11119 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	SANDOVAL ALICIA DODSON ST EL MONTE	Pacific Telephone

11120 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	NUNES MARTHA	Pacific Bell

11122 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	BOESE EDWARD DODSON ST EL MONTE	Pacific Telephone

11122 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	MORA D DODSON ST EL MONTE	Pacific Telephone

FINDINGS

11123 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	REGENDEZ JULLE DODSON ST EL MONTE	Pacific Telephone

11124 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	MARIN MANUEL	Pacific Bell
1980	NAVA MANUEL DODSON ST EL MONTE	Pacific Telephone

11124 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	RAYA AUDELIO DODSON ST EL MONTE	Pacific Telephone

11127 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	RAMIREZ MARIA DODSON ST EL MONTE	Pacific Telephone

11128 1/2 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	LUGO ELEUTERIO DODSON ST EL MONTE	Pacific Telephone

11131 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	LOPEZ LILIA	Pacific Bell

11132 1/4 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	VICTORINO ORVAL DODSON ST EL MONTE	Pacific Telephone

11132 3/4 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	JIMENEZ JESUS	Pacific Bell
1980	JIMENEZ DAVID RAMMRER DODSON ST EL MONTE	Pacific Telephone

11134 3/4 DODSON ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	BACA ESTELA	Pacific Bell

FINDINGS

DODSON ST # 11039

11017 DODSON ST # 11039

Map ID: 3

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	APARTMENTS	Haines Company
	FIGUEROANormna	Haines Company
	GOMEZJose	Haines Company
	Guadalupe GRACIANO Paulina	Haines Company
	HERNANDEZAralia	Haines Company
	MAURICIO Maria	Haines Company
	MCLEAN Sandra	Haines Company
	RAMIREZ Maria	Haines Company
	Angeles SALAS Maria	Haines Company
	SANTAMARIA	Haines Company
	Veronica TAFOYA Diana	Haines Company
	WEIDAMAN David	Haines Company
	ZAMACONA Maria	Haines Company
	ZUNIGA Nellie	Haines Company
1999	APARTMENTS ADAME Esquivel A	Haines Company
	BARBOZA Ruben	Haines Company
	MANSFIELD Kathryn M	Haines Company
	WOIDAMAN David	Haines Company
	GOMEZ Jose	Haines Company
1995	PROCTOR JOHN M JR	Pacific Bell
	MANSFIELD KATHRYN M	Pacific Bell
	HOFFMAN ARNOLD	Pacific Bell
	VASQUEZ RAYMOND S	Pacific Bell
	Gomez Jose	Pacific Bell
	Vasquez Raymond S	Pacific Bell
	I Weidaman David	Pacific Bell
	Hoffman Arnold	Pacific Bell
	NEWTON WM MILTON	Pacific Bell
	TRUS1ER LEE	Pacific Bell
	GOMEZ JOSE	Pacific Bell
WEIDAMAN DAVID	Pacific Bell	
1985	NEWTON WM MILTON EL MONTE	Pacific Bell
	KNIGHT MELVIN	Pacific Bell
	BRAY W L	Pacific Bell
	GETTY CLARK J	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	GROTKE MIKE	Pacific Bell
	MANSFIELD KATHRYN M	Pacific Bell
	PROCTOR JOHN M JR	Pacific Bell
	HAYGOOD CALLIE	Pacific Bell
	CURTIS CLARENCE J	Pacific Bell
	CROWELL HOLLIS A JR	Pacific Bell
	HETH LEONARD L	Pacific Bell
	HIX VERNON R	Pacific Bell
	NAGY ALEXANDER G	Pacific Bell
	MORROW GEO E	Pacific Bell
	SCHULTZ HOWARD G	Pacific Bell
	SHEEKS J	Pacific Bell
	HRABAC L	Pacific Bell
1980	HAYGOOD CALLIE DODSON ST ROWLAND HIEGHTS	Pacific Telephone
	BRAY JOHN DODSON ST EL MONTE	Pacific Telephone
	BRAY W L DODSON ST EL MONTE	Pacific Telephone
	HRABAC L DODSON ST EL MONTE	Pacific Telephone
	SYLVA ALBERT DODSON ST EL MONTE	Pacific Telephone
	MORROW GEO E DODSON ST EL MONTE	Pacific Telephone
	NEWTON WM MILTON DODSON ST EL MONTE	Pacific Telephone
	SCHULTZ HOWARD G DODSON ST EL MONTE	Pacific Telephone
	GOODRICH VIRGIL G DODSON ST EL MONTE	Pacific Telephone
	NAGY ALEXANDER G DODSON ST EL MONTE	Pacific Telephone
	SAYLE CLIFFORD T & MAYBELLE M DODSON ST EL MONTE	Pacific Telephone
	SHEKS J DODSON ST EL MONTE	Pacific Telephone
	CROWELL HOLLIS A JR DODSON ST EL MONTE	Pacific Telephone
	DAVIES L DODSON ST EL MONTE	Pacific Telephone
	CURTIS ROSE DODSON ST EL MONTE	Pacific Telephone
	TATE ERNEST DODSON ST EL MONTE	Pacific Telephone
	1975	NEWTON WM MILTON EL MONTE
NEWTON MARJORIE EL MONTE		Pacific Telephone
SCHULTZ ELMER EL MONTE		Pacific Telephone
ROGERS EDW F EL MONTE		Pacific Telephone
SYLVA ALBERT		Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	KNIGHT MELVIN	Pacific Telephone
	PROCTOR JOHN M JR	Pacific Telephone
	BRAY W L	Pacific Telephone
	TATE ERNEST	Pacific Telephone
	GLEN ELM MOBILE PARK	Pacific Telephone
	GOODRICH VIRGIL G	Pacific Telephone
	MANSFIELD KATHRYN M	Pacific Telephone
	MAGUIRE MERLE E	Pacific Telephone
	HAYGOOD CALLIE	Pacific Telephone
	SAYLE CLIFFORD T	Pacific Telephone
	DAVIES LORRAINE	Pacific Telephone
1966	HRABAC L	Pacific Telephone
	SHEEKS S J	Pacific Telephone
	CHAMNESS FRANK E	Pacific Telephone
	PROCTOR JOHN M JR	Pacific Telephone
	MARTIN EDNA	Pacific Telephone
	VAN HORN C E MRS	Pacific Telephone
	WILSON GARLAND G	Pacific Telephone
	YORK MAX L	Pacific Telephone
	CURTIS ROSE	Pacific Telephone
	IGERT ALBERT	Pacific Telephone
	HURD ROLAND R	Pacific Telephone
	NEWBY DELLA F	Pacific Telephone
	SHEEKS JESSIE	Pacific Telephone
	ECKERT MARGARETTA	Pacific Telephone
	KNIGHT MELVIN	Pacific Telephone
THOMPSON GENE F	Pacific Telephone	
1960	MUCHMORE OLIVIA	Pacific Telephone
	NEWBY DELLA F	Pacific Telephone
	ARGUIEN LIONEL P	Pacific Telephone
	DREWS ERNEST C JR	Pacific Telephone
	KILLEEN H L	Pacific Telephone
	FULKERSON CHAS W	Pacific Telephone
	PROCTOR JOHN M JR	Pacific Telephone
	GLAN ELM MOBILE PARK	Pacific Telephone
	BUTLER MADGE A	Pacific Telephone
MC MILLIN TINA V	Pacific Telephone	
SCOTT R E JR	Pacific Telephone	

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	WOLFE NELAND O	Pacific Telephone
	CLARKE BEA	Pacific Telephone
	ECKERT MARGARETTA	Pacific Telephone
	CHAMNESS FRANK E	Pacific Telephone
	HARBISOS GARY MRS	Pacific Telephone
	JOHNSTON JOEL E EL MONTE	Pacific Telephone
1957	DODSON TRAILER COURT	Pacific Telephone
	ARGUIEN LIONEL P	Pacific Telephone
	WALLACE WM A	Pacific Telephone
	PROCTOR JOHN M JR	Pacific Telephone
	RIVERA RUBBISH SERV	Pacific Telephone
	ROGERS W C	Pacific Telephone
	BUTLER MADGE A	Pacific Telephone
	SCOTT R E JR	Pacific Telephone
	HARSTINE CARL E MRS	Pacific Telephone
	HART HELEN	Pacific Telephone
	CURTIS ROSE	Pacific Telephone

E GARVEY AVE

10950 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Dove Enterprises	Pacific Bell

11011 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Mooterrey Park	Pacific Bell

11012 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Leeco Transmission Exchange	Pacific Bell

11016 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Modern Financial	Pacific Bell

11017 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	OLD FASHION BURGERS OF EL MONTE	Pacific Telephone

FINDINGS

11021 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	OLD FASHION BURGERS OF EL MONTE	Pacific Telephone
	DAIRY FREEZE	Pacific Telephone
1957	DAIRY FREEZE	Pacific Telephone
	OLD FASHION BURGERS OF EL MONTE	Pacific Telephone

11029 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Guzman Radiator	Pacific Bell
1966	ART S & RED S RADIATOR SERV	Pacific Telephone
	RED & ART S RADILATOR SERV	Pacific Telephone

11031 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	SERV-U PRINTING	Pacific Telephone

11035 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Modern Tra ller Supply Co	Pacific Bell

11050 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	CALIFORNIA STATE OF ALCOHOLIC BEVERAGE CONTROL DEPT	Pacific Telephone
	HIGHWAY PATROL CALIF STATE OF	Pacific Telephone

11107 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	RANCHO POULTRY MARKET	Pacific Telephone
	EL MONTE POULTRY MKT	Pacific Telephone
1957	RANCHO POULTRY MKT	Pacific Telephone

11108 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	EMMONS DARYLE W	Pacific Telephone

11120 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	HUNTER L F BUS CONSLTNT	Pacific Telephone
	RAMELLI T C BUS CONSLTNT	Pacific Telephone

FINDINGS

11141 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Virsa	Pacific Bell
	Virsaack J	Pacific Bell

11143 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PARKER ELEC CO	Pacific Telephone
	PARKER JAS E PARKER ELEN CO	Pacific Telephone
1957	PARKER JAS E PARKER ELEC CO	Pacific Telephone
	PARKER ELEC CO	Pacific Telephone

11149 E GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	ANIMALS PAY & NUTRITION CLINIC Garvey Pet Hospital	Pacific Bell

GARVEY

11141 GARVEY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1976	APEX SAW WORKS	Pacific Telephone

GARVEY AVE

10939 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	WIERNERSCHNITZEL	Cole Information Services
2007	WIERNERSCHNITZEL	Cole Information Services

10944 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	GRANTS TRUE VALUE HARDWARE CO	Cole Information Services

10949 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SNO VALLEY CAMPER SHELLS	Cole Information Services
2006	SHELLS	Haines Company
	SNO VALLEY	Haines Company
1999	SNO VALLEY SHELLS	Haines Company
	SNOW VALLEY SHELLS	Haines Company
1995	SNOW VALLEY SHELLS	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	SNO-VALLEY SHELLS	Pacific Bell
	Snow Valley Shells	Pacific Bell
	Sno Valley Shells	Pacific Bell
	Snow Valley Shells	Pacific Bell
1985	SNOW VALLEY SHELLS	Pacific Bell
	SNOW VALLEY SHELLS	Pacific Bell
	SNO VALLEY SHELLS	Pacific Bell
	SNO VALLEY SHELLS	Pacific Bell
1975	SNO-MOUNTAIN SHELL CENTER OF EL MONTE	Pacific Telephone

10950 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SUN SUN TRADING	Cole Information Services
2006	SUN SUN TRADING	Haines Company
1999	SUN SUN TRADING	Haines Company
1975	RETARDED CHILDRENS THRIFT STORE	Pacific Telephone
1966	RETARDED CHILDREN S ASSN THRIFT STORE	Pacific Telephone

10960 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	DON AM MOTORS INC	Cole Information Services
2006	DON AM MOTORS	Haines Company

10967 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	CHURCHS CHICKEN	Cole Information Services
2007	LOS MANDILONES AUTO SALES	Cole Information Services
2006	CHURCHS FRD	Haines Company
	CHKN INC ELMNT	Haines Company
1999	CHURCHS FRIED CHICKEN INC	Haines Company
1995	CHURCH S FRIED CHICKEN INC	Pacific Bell
1985	CHURCHS FRIED CHICKEN INC BALDWIN PARK NO 787	Pacific Bell
1975	SCOTTY S TEXACO SERVICE	Pacific Telephone
1966	SCOTTY S SIGNAL SERV	Pacific Telephone

10968 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	PRICE SERVICE	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	PRICE SERVICE	Cole Information Services
2007	A M MOTORS INC	Cole Information Services
	A M MOTORS INC	Cole Information Services
1999	F M MOTORS	Haines Company
1995	RPM RICKS PERFORMANCE MOTORS	Pacific Bell
	RPM Ricks Performance Motors	Pacific Bell
1975	PRICE S CHEVRON SERVICE	Pacific Telephone
	PRICE S OFFICIAL AUTO INSPECTION	Pacific Telephone
1966	PRICE CHEVRON SERY	Pacific Telephone
	PRICE CHEVRON SERV	Pacific Telephone

11007 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	TACO BELL	Cole Information Services
2007	TACO BELL	Cole Information Services
2006	TACO BELL	Haines Company
1999	TACO BELL	Haines Company
1995	TACO BELL3148	Pacific Bell
1985	PUP N TACO DRIVE UPS	Pacific Bell
1980	PUP-N TACO DRIVE UPS	Pacific Telephone
1975	RAY S MOBIL SERVICE EL MONTE	Pacific Telephone
	MOBIL SERVICE STN DLRS EL MONTE	Pacific Telephone
1966	MOBIL SERV STANTONDLRS	Pacific Telephone

11017 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	OLD FASHION BURGERS OF EL MONTE	Pacific Telephone

11027 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEQUEAUTO	Haines Company
	SERVICE PALACIOSAUTO	Haines Company
	ELECTRIC	Haines Company
1999	CONSMR CARBURETOR	Haines Company
	FRIENDS AUTO ELEC	Haines Company
1995	CONSUMER CARBURETOR	Pacific Bell
	FRIENDS AUTO ELECTRIC	Pacific Bell
1966	DAIRY FREEZE	Pacific Telephone

FINDINGS

11029 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	GUZMAN RADIATOR	Haines Company
1999	GUZMAN RADIATOR	Haines Company
1995	GUZMAN RADIATOR	Pacific Bell
1985	RED AND ARTS RADIATOR	Pacific Bell
	RED & ARTS AUTO AIR CONDITIONING	Pacific Bell
	ART S & RED S RADIATOR SERVICE	Pacific Bell
	RED & ARTS RADIATOR SERVICE	Pacific Bell
1980	ARTS & REDS RADIATOR SERVICE GARVEY AVE EL MONTE	Pacific Telephone
	CALIF AUTOMOTIVE RADIATOR ASSOC GARVEY AVE EL MONTE	Pacific Telephone
	RED & ARTS RADIATOR SERVICE GARVEY AVE EL MONTE	Pacific Telephone
	RED & ARTS AUTO AIR CONDITIONING GARVEY AVE EL MONTE	Pacific Telephone
1975	RED & ART S AUTO AIR CONDITIONING	Pacific Telephone
	ART S & RED S RADIATOR SERVICE	Pacific Telephone
1957	SUPERIOR MOTORS	Pacific Telephone

11030 1/2 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	NEELY JEFF W	Pacific Telephone

11031 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	SERV-U PRINTING EL MONTE	Pacific Bell
1980	SERV U PRINTING GARVEY AVE EL MONTE	Pacific Telephone
1975	SERV U PRINTING	Pacific Telephone
1966	SERV-U PRINTING	Pacific Telephone

11032 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	XXXX	Haines Company

11035 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MODERN TRAILER	Haines Company
1999	MODERN TRAILER SPL	Haines Company
1995	MODERN TRAILER SUPPLY CO	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	MODERN TRAILER SUPPLY CO	Pacific Bell
1980	MODERN TRAILER SUPPLY CO GARVEY AVE EL MONTE	Pacific Telephone
1966	MODERN TRAILER SUPPLY CO	Pacific Telephone

11036 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	STROP STUDEBAKER & PACKARD INC	Pacific Telephone
	VINCENT & STROP INC SEE STROP STUDEBAKER & PACKARD INC	Pacific Telephone

11039 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	AUTO WHOLESALE CENTRE	Pacific Telephone
1957	HANSON S FURN CO	Pacific Telephone
	SILVER DOLLAR HANSON S FURN CO	Pacific Telephone

11044 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	KINGCITYAUTO	Haines Company
	ENTERPRISE	Haines Company
1999	A T M AUTO SALES	Haines Company
1995	CENTRAL AUTO SALES	Pacific Bell
	Central Auto Sales	Pacific Bell
1985	ALS AUTO SALES	Pacific Bell
1980	ATLAS TRAILER SALES GARVEY AVE EL MONTE	Pacific Telephone
	COVARRUBIAS JESUS GARVEY AVE EL MONTE	Pacific Telephone
1976	ATLAS TRAILER SALES	Pacific Telephone
1975	ATLAS TRAILER SALES	Pacific Telephone
1966	ATLAS TRAILER SALES	Pacific Telephone

11047 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	SILVER DOLLAR HANSON S FURN CO I	Pacific Telephone
	HANSON S SILVER DOLLAR FURN CO	Pacific Telephone

11048 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	EL BARATISIMO AUTO SALES	Cole Information Services
2006	ENTERPRISES	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	BESTPRICEAUTO	Haines Company
	SALES LUGANO	Haines Company
	BESTPRICEAUTO	Haines Company
	SALES LUGANO	Haines Company
	ENTERPRISES	Haines Company
1999	ELMNT USED CAR SLS	Haines Company
	ELMNT USED CAR SLS	Haines Company
1995	EL MONTE USED CAR SALES	Pacific Bell
	EL MONTE USED CAR SALES	Pacific Bell
1985	SENTENO AUTO SALES	Pacific Bell
	SENTENO AUTO SALES	Pacific Bell
1980	SENTENO AUTO SALES GARVEY AVE EL MONTE	Pacific Telephone
	SENTENO AUTO SALES GARVEY AVE EL MONTE	Pacific Telephone
1966	GOLDEN STATE TRAILER TRANSPORT	Pacific Telephone
	GOLDEN STATE TRAILER TRANSPORT	Pacific Telephone

11058 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	INSURANCE AUTO SERVICE	Haines Company
	ASTRO STAR	Haines Company
1999	AUTO SERVICE LEON	Haines Company
	AMERICA INSURANCE	Haines Company
1985	ACTION GLASS & SCREEN COMPANY	Pacific Bell
1980	EL MONTE PAINT & GLASS GARVEY AVE EL MONTE	Pacific Telephone
1975	EL MONTE PAINT & GLASS	Pacific Telephone
	DOSSINGER LEONARD B RL EST	Pacific Telephone

11059 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SALES J LJ MOTORS	Haines Company
	BEL RICHAUTO	Haines Company
1999	BELRICH AUTO SALES	Haines Company
1995	BEL-RICH AUTO SALES	Pacific Bell
1985	BEL-RICH AUTO SALES	Pacific Bell
1980	BEL-RICH AUTO SALES GARVEY AVE EL MONTE	Pacific Telephone
1975	ROYAL TANK CO	Pacific Telephone
	ROYAL CAMPER SALES	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	STROP E L INC NEW CARS	Pacific Telephone

11101 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	VILLEGAS REALTY	Haines Company
1995	VILLEGAS REALTY	Pacific Bell
	Villegas Realty	Pacific Bell
1985	VILLEGAS REALTY	Pacific Bell
1980	GALLO SIGNS GARVEY AVE EL MONTE	Pacific Telephone

11102 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	EL MONTE MOTEL	Cole Information Services
2007	EL MONTE MOTEL	Cole Information Services
2006	ELMNT MOTEL	Haines Company
1999	ELMNT MOTEL	Haines Company
1995	ELMONTEMOTEL	Pacific Bell
1985	CHOW CHING L	Pacific Bell
	MOTEL EL MONTE	Pacific Bell
1980	CHEN FON RU GARVEY AVE EL MONTE	Pacific Telephone
1975	SCHMALING CLINTON A	Pacific Telephone
	VASQUEZ FRANK E	Pacific Telephone
	CHEN FON-RU	Pacific Telephone
	BURROWS VIVIAN	Pacific Telephone
1966	SCHMALING CLINTON A	Pacific Telephone
	EL MONTE MOTEL	Pacific Telephone
	BURROWS VIVIAN	Pacific Telephone
1957	EL MONTE MOTEL	Pacific Telephone

11103 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	RIGHT ON THE SPOT SPORTING GOODS	Cole Information Services
2007	RIGHT ON THE SPOT SPORTING GOODS	Cole Information Services
2006	SPORTING GDS	Haines Company
	RIGHTON THE SPOT	Haines Company
1999	ON THE SPOT SPORTING GOODS	Haines Company
1995	ON THE SPOT SPORTING GOODS	Pacific Bell
1985	ON THE SPOT SHIRT SHOP	Pacific Bell
1980	GALAXIE AWARDS GARVEY AVE EL MONTE	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	VETERAN UPHOLSTERING	Pacific Telephone

11107 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	PACIFICA REALTY GROUP	Cole Information Services
	OFFICE OF MERCADO IRMA REAL ESTATE	Cole Information Services
2007	DREAM HOUSE REALTY	Cole Information Services
	IRMA L MERCADO	Cole Information Services
2006	REAL ESTATE MERCADOIRMA	Haines Company
	HIDALGOSYLVA	Haines Company
	REAL ESTATE OFC	Haines Company
1999	PUERTO RICO IMPORT BOTANICA	Haines Company
1995	NIO S UPHOLSTERY CO	Pacific Bell
	NIO S UPHOLSTERY CO	Pacific Bell
1985	NIJO S UPHOLSTERY CO	Pacific Bell
1980	NIJO S UPHOLSTERY CO GARVEY AVE EL MONTE	Pacific Telephone
1975	TELECOLOR T V SALES & SERVICE	Pacific Telephone
1966	EL MONTE ITALIAN GROCERY & DELICATESSEN	Pacific Telephone

11108 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	EMMONS DARYLE W CUSTOM FURN FINSHNG	Pacific Telephone

11109 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	AIDAS BEAUTY SALON	Cole Information Services
1999	AIDAS BEAUTY SALON	Haines Company
1995	YESENIAS BEAUTY SALON	Pacific Bell
	J J& YLNTERiors	Pacific Bell
	Yesenias Beauty Salon	Pacific Bell
1985	GOLDEN TOUCH HAIR FASHIONS	Pacific Bell
1980	GOLDEN TOUCH HAIR FASHIONS GARVEY AVE EL MONTE	Pacific Telephone
1966	TELECOLOR TV SERV	Pacific Telephone

11111 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	J & J ELECTRONICS	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	J & J ELECTRONICS	Cole Information Services
2006	J&J ELECTRONICS	Haines Company
1999	J & J ELECTRONICS	Haines Company
1995	Mera Electronics	Pacific Bell
1985	E L C ELECTRONICS	Pacific Bell
1980	PFAFF JOHN GARVEY AVE EL MONTE	Pacific Telephone
1975	NIJOS UPHOLSTERY CO EL MONTE	Pacific Telephone
1966	PACOIMACHALLENGER RECORDING STUDIOS	Pacific Telephone

11112 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	LILY OF THE VALLEY CHURCH	Pacific Bell
1980	LILY OF THE VALLEY CHURCH GARVEY AVE EL MONTE	Pacific Telephone
1966	EMMONS DARYLE W CUSTM FURN FINSHNG	Pacific Telephone
1957	PRINTING CENTER	Pacific Telephone

11114 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	VAUGHN ROBT L GARVEY AVE EL MONTE	Pacific Telephone
1975	VAUGHN ROBT L	Pacific Telephone
1966	BRYANT JOHN H REV	Pacific Telephone

11115 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	XXXX	Haines Company
1995	Gamboa Motors I	Pacific Bell
	GAMBOA MOTORS I	Pacific Bell
1975	WESTERN TRAILER SALES	Pacific Telephone
1966	WESTRN TRAILER COACH MIG CORP	Pacific Telephone

11116 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	LIBRERIA ALICIA	Pacific Bell
1980	SOUTHERN CALIFORNIA TRACT TERMITE CONTROL GARVEY AVE EL MONTE	Pacific Telephone
	LILY OF THE VALLEY THRIFT SHOP GARVEY AVE EL MONTE	Pacific Telephone
1966	BURTON LAND CO	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	BURTON LAND CO	Pacific Telephone
	BURTON WM L BURTON LAND CO	Pacific Telephone

11117 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	S K AUTO SALE	Cole Information Services
2007	MUNOZ AUTO SALES	Cole Information Services
2006	SALES	Haines Company
	MUNOZAUTO	Haines Company
1999	AMERICA MOTORS	Haines Company
	SUNSET AUTO	Haines Company

11118 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	HERNANDEZ JUAN LUIS	Pacific Bell
	ADWELL NICHOLS	Pacific Bell
1980	ADWELL-NICHOLS GARVEY AVE EL MONTE	Pacific Telephone
1975	ZORNOW R E ELECTRICAL DRAFTING CO	Pacific Telephone
	ADWELL-NICHOLS	Pacific Telephone
1966	CRISMON CLEO CLEO S DRAPERY	Pacific Telephone
	CLEO S DRAPERY	Pacific Telephone
1957	BAKER LAND CO	Pacific Telephone

11120 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	HAMPTON WM H MRS	Pacific Telephone

11124 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HAMPTON VERNA M	Pacific Telephone
1966	HAMPTON WM H MRS	Pacific Telephone

11139 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	EXPRESS MOBILE	Haines Company
	WELDING SUPPLY	Haines Company
1999	WORLD MACHINERY AND SAW SYSTEM	Haines Company
1995	MEKHTARIAN SMACHINESHOP H	Pacific Bell
	SAWSERVICES	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	World Machinery & Saws Systems	Pacific Bell
	WORLD MACHINERY & SAWS SYSTEMS	Pacific Bell
	Saw Services	Pacific Bell
1985	APEX SAW WORKS	Pacific Bell
1980	WESTERN TRAILER SALES GARVEY AVE EL MONTE	Pacific Telephone
1975	STYLE CRAFT	Pacific Telephone
1966	WESCO REFRIGERATION CO	Pacific Telephone

11141 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	CENTRL TIRES	Haines Company
1995	VIRSA	Pacific Bell
	Exner Fred	Pacific Bell
1985	EXNER FRED	Pacific Bell
	MONTEREY APPLIANCES	Pacific Bell
1980	EL MONTE SAW WORKS GARVEY AVE EL MONTE	Pacific Telephone
	APEX SAW WORKS GARVEY AVE EL MONTE	Pacific Telephone
1975	AL S SHARPENING SERVICE EL MONTE	Pacific Telephone
	APEX LAWNMOWER SERVICE	Pacific Telephone
	APEX SAW WORKS	Pacific Telephone
	EL MONTE SAW WORKS	Pacific Telephone
1960	RANGER C S EL MONTE MOTOR CO	Pacific Telephone
1957	PRICE AUTO SALES	Pacific Telephone
	PRICE KEN PRICE AUTO SALES	Pacific Telephone

11142 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SAN GABRIEL VALLEY WATER COMPANY	Cole Information Services
2007	CALIFORNIA WATER SERVICE CO	Cole Information Services
2006	WATER COMPANY	Haines Company
	WATER COMPANY SANGBRL VALLEY	Haines Company
	SANGBRL VALLEY	Haines Company
1999	SANGBRL VLY WATER CO	Haines Company
	SANGBRL VLY WATER COMPANY	Haines Company
	SANGBRL VLY WATER	Haines Company
1995	SAN GABRIEL VALLEY WATER COMPANY	Pacific Bell
	San Gabriel Valley Water Company	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	SAN GABRIEL VALLEY WATER COMPANY	Pacific Bell
1980	SAN GABRIEL VALLEY WATER COMPANY	Pacific Telephone
1975	SAN GABRIEL VALLEY WATER CO	Pacific Telephone
1966	SAN GABRIEL VALLEY WATER CO	Pacific Telephone
1960	SAN GABRIEL VALLEY WATER CO	Pacific Telephone
1957	SAN GABRIEL VALLEY WATER CO	Pacific Telephone

11143 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	GLASS EMPORIUM	Haines Company
1999	GLASS EMPORIUM	Haines Company
1985	ACKER & ACKER INC	Pacific Bell
1980	GLASS EMPORIUM GARVEY AVE EL MONTE	Pacific Telephone
	ACKER & ACKER INC GARVEY AVE EL MONTE	Pacific Telephone
1975	GLASS EMPORIUM	Pacific Telephone
1966	GLASS EMPORIUM	Pacific Telephone

11149 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	ANIMALSPAY& NEUTER	Haines Company
	GARVEY PET HOSPITAL	Haines Company
	TREMAZI MS DVM	Haines Company
1999	ANIMAL SPAY & NEUTER GARVEY PET HOSPITAL	Haines Company
	TREMAZI M S DVM	Haines Company
1995	TREMAZI M S DVM GARVEY PET HOSPITAL	Pacific Bell
	Garvey Pet Hospital	Pacific Bell
	Tremazi M S DVM Garvey Pet Hospital	Pacific Bell
1985	ANIMAL SPAY & NEUTER CLINIC GARVEY PET HOSPITAL	Pacific Bell
	GARVEY PET HOSPITAL	Pacific Bell
	TREMARI M S DVM GARVEY PET HOSPITAL	Pacific Bell
1980	GARVEY PET HOSPITAL GARVEY AVE EL MONTE	Pacific Telephone
	TREMAZI M S DVM GARVEY PET HOSPITAL GARVEY AVE EL MONTE	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GARVEY PET HOSPITAL	Pacific Telephone
	WILLIAMS ERNEST DVM GARVEY PET HOSPITAL	Pacific Telephone
1966	GARVEY PET HOSPITAL	Pacific Telephone
	WILLIAMS ERNEST DVM GARVEY PET HOSPITAL	Pacific Telephone
1960	GARVEY PET HOSPITAL	Pacific Telephone
1957	GARVEY DOG & CAT HOSPITAL	Pacific Telephone
	WILLIAMS ERNEST DR GARVEY DOG & CAT HOSPITAL	Pacific Telephone

11151 GARVEY AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	PET SUPER MKT	Pacific Telephone
1957	PET SUPER MKT	Pacific Telephone

N TYLER AVE

3048 N TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	El Monte Adult High School Office	Pacific Bell
	EL MONTE ADULT HIGH SCHOOL OFFICE	Pacific Bell

NEVADA AVE

2805 NEVADA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	PLANTILLA E Maria	Haines Company
	DORADO Andres	Haines Company
	MONTECILLO Ella	Haines Company

2809 NEVADA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CHEN Ching	Haines Company
	LULET Edward	Haines Company

NEVADA ST

2805 NEVADA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	BROWN DARLENE E	Pacific Telephone
	VILLA BRUNO	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	BROWN DANL	Pacific Telephone

2809 NEVADA ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	HOWE THOS LEE	Pacific Telephone
1966	OWENS MELVIN M	Pacific Telephone

TYLER

2746 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Campbell Gordon L	Pacific Bell

2751 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Magdaleno Jesus	Pacific Bell

2754 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Yusseff Mohamidd	Pacific Bell

2767 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Aymar L & R	Pacific Bell

2770 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Johnson Victor L	Pacific Bell

2775 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Shepard Jas Watt	Pacific Bell

2835 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Gimenez Dory L	Pacific Bell

2849 TYLER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Villanueva Teresita	Pacific Bell

FINDINGS

TYLER ALY

2746 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	CAMPBELL GORDON L	Pacific Telephone
1960	CAMPBELL GORDON L	Pacific Telephone
1957	CAMPBELL GORDON I	Pacific Telephone
1954	CAMPBELL GORDON L R	R. L. Polk & Co.
1950	CAMPBELL GORDON L R	Pacific Telephone

2749 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	CASSINO FRANK R	Pacific Telephone

2751 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	BECKWITH F S R	Pacific Telephone

2752 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	YOUNG JOHN N	Pacific Telephone
1960	YOUNG JOHN M	Pacific Telephone
1957	YOUNG JOHN NV	Pacific Telephone
1954	YOUNG JOHN M R	R. L. Polk & Co.
1950	YOUNG JOHN NR	Pacific Telephone

2754 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	INGLE GEO	Pacific Telephone
1960	HUNTER JOHN A	Pacific Telephone
1957	HUNTER JOHN A	Pacific Telephone
1950	TREGILGAS EDW THOS JR R	Pacific Telephone

2760 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1957	HSDHMANN W	Pacific Telephone

2761 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1950	FULTON S A R	Pacific Telephone

FINDINGS

2765 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	BARBOUR CLYDE	Pacific Telephone
1960	BARBOUR CLYDE	Pacific Telephone
1957	BARBOUR CLYDE	Pacific Telephone
1954	BARBOUR CLYDE R	R. L. Polk & Co.
1950	BARBOUR CLYDE R	Pacific Telephone

2766 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	KERR DALE	Pacific Telephone
1960	KERR DALE	Pacific Telephone
1957	KERR DALE	Pacific Telephone
1954	KERR DALE R	R. L. Polk & Co.
1950	KERR DALE R	Pacific Telephone

2769 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	SWANSON VIOLET	Pacific Telephone
1960	SWANSON VIOLET	Pacific Telephone
1957	SWANSON VIOLET	Pacific Telephone
1954	SWANSON VIOLET R	R. L. Polk & Co.

2770 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	INGLE GEO	Pacific Telephone

2775 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	SHEPARD JAS WATT	Pacific Telephone
1960	SHEPARD JAS WATT	Pacific Telephone
1957	SHEPARD JAS WATT	Pacific Telephone
1954	SHEPARD JAS WATT R	R. L. Polk & Co.
1950	SHEPARD JAS WATTR	Pacific Telephone

2820 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	TWO AMIGOS AUTO DETAIL	Pacific Bell

FINDINGS

2839 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	ELDRIDGE CHAS L	Pacific Telephone

2846 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	ANDERSON CLARENCE	Pacific Telephone

2849 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	HAYES OTTO	Pacific Telephone

2850 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	KILLEEN JACK R	Pacific Telephone

2856 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	BASGALL INEZ	Pacific Telephone
	BASGALL JACOB	Pacific Telephone

2862 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	LINDSEY PAUL H	Pacific Telephone
	LINDSEY DOLORES	Pacific Telephone

2867 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	CARTER DON LONG BEACH	Pacific Telephone

2874 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	ATKINSON JOHN	Pacific Telephone

3017 TYLER ALY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	FAIR HOUSING COUNCIL OF SAN GABRIEL VALLEY	Pacific Bell
	BIENVENIDOS	Pacific Bell
	CATHOLIC CHARITIES OF LOS ANGELES POVERTY PGM	Pacific Bell
	SAN GABRIEL MULTI-SERVICE CENTER	Pacific Bell

FINDINGS

TYLER AVE

2702 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	ANDRADES INCOME TAX & BOOKKEEPING	Cole Information Services
2007	ANDRADES INCOME TAX & BOOKKEEPING	Cole Information Services
	D & L BUSINESSES INC	Cole Information Services

2703 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	AUTO REPAIR CASTANEDA	Cole Information Services
2007	AUTO REPAIR CASTANEDA	Cole Information Services

2714 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	TYLER TIRES	Cole Information Services

2715 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	CARLAS SPORTSWEAR	Cole Information Services

2725 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SAN LUIS AUTO GLASS	Cole Information Services
2007	SAN LUIS AUTO GLASS 3233430003	Cole Information Services

2728 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	GL CONTRACTOR INC	Cole Information Services
	ANAS IRON SUPPLY	Cole Information Services
	GL CONTRACTOR INC	Cole Information Services
	ANAS IRON SUPPLY	Cole Information Services
2007	MTS CONSTRUCTION INC	Cole Information Services
	AAA HANGERS	Cole Information Services
	ANDRADES INCOME TAX	Cole Information Services
	MTS CONSTRUCTION INC	Cole Information Services
	AAA HANGERS	Cole Information Services
	ANDRADES INCOME TAX	Cole Information Services
2006	MTS	Haines Company
	CONSTRUCTION INC MTS	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	CONSTRUCTION INC MTS	Haines Company
	CONSTRUCTION INC	Haines Company
1985	PECK THEODORE D	Pacific Bell
1980	PECK THEODORE D TYLER AVE EL MONTE	Pacific Telephone
1975	PECK THEODORE D	Pacific Telephone
1957	LAMPERT ALBERT J	Pacific Telephone
1954	LAMPERT ALBERT J R	R. L. Polk & Co.
1950	ANDERSON ARTHUR W R	Pacific Telephone
1942	Mc FAUL Arth cbtnkr	Los Angeles Directory Co.
	Mc FAUL Harry Zoe tile str	Los Angeles Directory Co.

2731 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	ROMANAS BEAUTY SALON	Cole Information Services
2007	ROMANAS BEAUTY SALON	Cole Information Services

2735 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	CARRILLOS ORNAMENTAL SUPPLIES	Cole Information Services
1980	SOLARI GEORGE J TYLER AVE EL MONTE	Pacific Telephone

2817 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	SUN SUN GROUP	Cole Information Services
1995	ARC S GV Transportation	Pacific Bell
	ARC S GV Workshop	Pacific Bell
	ARC S GV Workshop	Pacific Bell
	ARC S GV Transportation	Pacific Bell
1985	ASSN FOR RETARDED CITIZENS-SAN GABRIEL VALLEY	Pacific Bell
	ARC SGV WORKSHOP	Pacific Bell
	ARC SGV TRANSPORTATION	Pacific Bell
	ARC SGV TRANSPORTATION	Pacific Bell
	ARC SGV WORKSHOP	Pacific Bell
	ASSN FOR RETARDED CITIZENS-SAN GABRIEL VALLEY	Pacific Bell
1980	RETARDED CHILDRENS BUDGET FURNITURE TYLER AVE EL MONTE	Pacific Telephone
	RETARDED CHILDRENS BUDGET FURNITURE TYLER AVE EL MONTE	Pacific Telephone

FINDINGS

2818 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	PAINT	Haines Company
	AUTOMOTIVE BODY & 626 MOTORING	Haines Company
1985	LIM S BODY SHOP	Pacific Bell

2820 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	TWO AMIGOS AUTO	Haines Company
1995	Two Amigos Auto Detail	Pacific Bell

3002 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	THE HAIR SHAPERS	Cole Information Services

3016 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	GUERAS BARBER SHOP	Cole Information Services
2006	GUERAS BARBER	Haines Company
1995	Hot Stuff Hairstyling For Both Men & Women	Pacific Bell
1985	HOT STUFF HAIRSTYLING FOR BOTH MEN & WOMEN	Pacific Bell
1980	HOT STUFF HAIRSTYLING FOR BOTH MEN & WOMEN TYLER AVE EL MONTE	Pacific Telephone

3017 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SAN GABRIEL VALLEY CONSERVATIONS COR	Cole Information Services
	SAN GABRIEL VALLEY CONSERVATION CORP	Cole Information Services
2007	COUNTY OF LOS ANGELES	Cole Information Services
	DIOCESE SAN BERNARDINO	Cole Information Services
1995	Bienvenidos	Pacific Bell
	Catholic Charities Of Los Angeles poverty pgm	Pacific Bell
	San Gabriel Multi Service Center !	Pacific Bell
1985	NAPP DRUG SYMPOSIUM	Pacific Bell
1980	SAN GABRIEL VALLEY MULTI SERVICE CENTER TYLER AVE EL MONTE	Pacific Telephone
	LOS ANGELES COUNTY OF CONSUMER AFFAIRS DEPT OF LOS ANGELES	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	LOS ANGELES COUNTY OF	Pacific Telephone

3020 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company
1985	MENDOZA FILEMON LOZA	Pacific Bell
1980	JOANN S CHLDRNS APPRL TYLER AVE EL MONTE	Pacific Telephone
	EL MONTE SELF DEFENSE SCHOOL TYLER AVE EL MONTE	Pacific Telephone

3022 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	A SHAWN ADHAMI MD	Cole Information Services
2006	CLINIC	Haines Company
	MD MORELIAMEDICAL	Haines Company
	ADHAMI A SHAWN	Haines Company
1985	MANDYS FASHIONS	Pacific Bell

3024 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	RICHARDSON JAS H DC	Cole Information Services
2007	JAMES H RICHARDSON DC CHIROPRACTIC	Cole Information Services
2006	Dr RICHARDSON JAS H	Haines Company
	RICHARDSON James	Haines Company
	RICHARDSON James	Haines Company
1995	Richardson Jds E & Jean L	Pacific Bell
	Richardson James Dr	Pacific Bell
	Richardson Jas E S Mad	Pacific Bell
1985	RICHARDSON JAS H DR CHIRPRCTR EL MONTE	Pacific Bell
1980	RICHARDSON JAS H DR CHIRPRCTR TYLER AVE EL MONTE	Pacific Telephone

3026 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	CARYNELL INSURANCE SERVICES	Cole Information Services
2006	SERVICES	Haines Company
	CARYNELL	Haines Company
	INSURANCE	Haines Company
1995	The Party Place	Pacific Bell

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	The Perfect Type Mon	Pacific Bell
	The Place Within Mon	Pacific Bell
1985	VITA CRAFT	Pacific Bell

3028 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ABC JOBS	Pacific Bell

3030 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	SANTA LUPITA MEDICAL GROUP INC	Cole Information Services
	MORELIA MEDICAL CLINIC	Cole Information Services
2007	MORELIA MEDICAL CLINIC	Cole Information Services
2006	SANTALUPITA	Haines Company
	MEDICAL GROUP	Haines Company
1995	Family Connection The	Pacific Bell
	ChIldrens Bureau Of Southern California	Pacific Bell
1985	FAMILY CONNECTION THE	Pacific Bell
1980	STEVE S SHOWROOM FURNITURE TYLER AVE EL MONTE	Pacific Telephone

3035 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	INFO LINE	Pacific Bell
1985	Info Line	Pacific Bell Telephone
	INFO LINEEL MONTE	Pacific Bell
1981	INFO LINE EL MONTE	Pacific Telephone
1980	LOS ANGELES COUNTY OF PUBLIC SOCIAL SERVICES DEPT REGIONAL SVCS OFFICES HOM	Pacific Telephone
1976	PUBLIC SOCIAL SERVICES DEPT Other Ofcs Childrens Services Day Care & Licensing Dependency Ofcs El Monte	Pacific Telephone
	LEW PEQ	Pacific Telephone
1975	LOS ANGELES COUNTY OF PUBLIC SOCIAL SERVICES DEPT	Pacific Telephone

3047 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	DAVES TROPHIES	Cole Information Services
2007	DAVES TROPHIES	Cole Information Services
2006	DAVES TROPHIES	Haines Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Daves Trophies	Pacific Bell
1985	DAVES TROPHIES	Pacific Bell
1980	DAVE S TROPHIES TYLER AVE EL MONTE	Pacific Telephone

3048 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	LIBERTY CLIMATE CONTROL	Cole Information Services
	EL MONTE UNION HIGH SCHOOL DISTRICT	Cole Information Services
	EL MONTE HIGH SCHOOL	Cole Information Services
2007	EL MONTE HIGH SCHOOL	Cole Information Services
2006	SCHOOL KOAM	Haines Company
	ELMNT HIGH	Haines Company
	CONSTRUCION INC	Haines Company
1985	EL MONTE HIGH SCHOOL EL MONTE	Pacific Bell

3049 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	NEW WIRELESS COMMUNICATIONS	Cole Information Services
	THE HAIR SHAPERS	Cole Information Services
2006	NEWWIRELESS	Haines Company
	COMMUNICATIONS THE HAIR SHAPERS	Haines Company
1995	Pauls Carburetor & Fuel Supplies	Pacific Bell
	Pauls Chem Dry Whit	Pacific Bell
1985	AMYS BEAUTY SHOP	Pacific Bell
1980	AMY S BEAUTY SHOP TYLER AVE EL MONTE	Pacific Telephone

3049 1/2 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	POWER CASTER INC	Pacific Bell
1980	POWER CASTER INC TYLER AVE EL MONTE	Pacific Telephone

3049A TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	POWER CASTER INC	Pacific Bell

3053 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	P & L APPLIANCES	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2007	P & L APPLIANCES	Cole Information Services
2006	P&L APPUANCES	Haines Company
1976	Kimball & Stark Wholesale Electronics	Pacific Telephone

3057 TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2012	GRANO DE ORO	Cole Information Services
2007	DOUBLE 8 FREEZE	Cole Information Services
2006	DOUBLE 8 FREEZE	Haines Company

TYLER DR

2811 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	EL MONTE ROLLER SKATING RINK	Pacific Telephone
	ROLLAROUND SKATING RINK	Pacific Telephone
1966	EL MONTE ROLLER SKATING RINK	Pacific Telephone
	EL MONTE SKATING RINK	Pacific Telephone

3016 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	RICHARDSON JAS H DR CHIRPRCTR	Pacific Telephone
1966	CLEVELAND FRED C	Pacific Telephone
	RICHARDSON JAS H DR CHIRPRCTR	Pacific Telephone

3017 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	SAN GABRIEL VALLEY MULTI SERVICE CENTER	Pacific Telephone
	LOS ANGELES COUNTY OF	Pacific Telephone

3020 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEON JUAN	Pacific Telephone
	MONDRAGON ENRIQUE	Pacific Telephone
	SHIRLEYS HAIR FASHIONS	Pacific Telephone
	WILLIAMS SHIRLEY D SHIRLEY S HAIR FASHIONS	Pacific Telephone
1966	SHIRLEY S HAIR FASHIONS	Pacific Telephone
	WILLIAMS SHIRLEY D SHIRLEY S HAIR FASHIONS	Pacific Telephone

FINDINGS

3024 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	WALL INGA	Pacific Telephone
1966	WALL HAROLD H REV	Pacific Telephone

3035 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	LOS ANGELES COUNTY OF BUREAU OF ADOPTIONS	Pacific Telephone

3047 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	DAVE S TROPHIES	Pacific Telephone

3049 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	NAVE ALTA ALTA S BEAUTY SHOP	Pacific Telephone
	ALTA S BEAUTY SHOP	Pacific Telephone
1966	ALTAS BEAUTY SHOP	Pacific Telephone
	NAVE ALTA ALTAS BEAUTY SHOP	Pacific Telephone

3049 1/2 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	SMITH ELEONORE BUNNY S COFFEE SHOP	Pacific Telephone
	BUNNYS COFFEE SHOP	Pacific Telephone

3053 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	KIMBALL & STARK WHOLESAL ELECTRONICS	Pacific Telephone

3057 TYLER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	TASTEE FREEZ OF EL MONTE TYLER	Pacific Telephone
1966	TASTEE FREEZ OF EL MONTE TYLER	Pacific Telephone

TYLER LN

2759 TYLER LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1937	WESTLUND Arth P elec inspr Dept Water & Power	Los Angeles Directory Co.

FINDINGS

2760 TYLER LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1937	Telling Vincent II Margt agt The Research Co	Los Angeles Directory Co.

2765 TYLER LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1942	MARSH Geo W Fern carp	Los Angeles Directory Co.

2811 TYLER LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	BMW Co	Pacific Bell

TYLER WAY

2740 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	O NEIL LORRAIE	Pacific Telephone
	O NEIL RICHARD	Pacific Telephone

2741 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	BURKE RUTH	Pacific Bell
1980	BURKE RUTH	Pacific Telephone
1975	BURKE RUTH	Pacific Telephone
1970	BURKE RUTH	Pacific Telephone

2745 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	DIGBY OBIE M	Pacific Telephone

2746 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	CAMPBELL GORDON L	Pacific Bell
1980	CAMPBELL GORDON L	Pacific Telephone
1975	CAMPBELL GORDON L	Pacific Telephone
1970	CAMPBELL GORDON L	Pacific Telephone

2749 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MEYER DWAIN J	Pacific Telephone

FINDINGS

2751 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	LOPEZ BAUDELIO	Pacific Bell
1980	LOPEZ VAUDELLO	Pacific Telephone

2754 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	YUSSEFF MOHAMIDD	Pacific Bell
1970	PACKER MARTIN N	Pacific Telephone

2757 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	LEOMITL FIRIPELE	Pacific Telephone
1975	LEOMITI FIRIPELE	Pacific Telephone

2760 1/2 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	MENDOZA JOSE	Pacific Bell

2761 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	SAN PEDRO RENE	Pacific Bell
1975	PACKER OMER L	Pacific Telephone

2765 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	JOHNS GEO A JR	Pacific Bell
1980	JOHNS GEO A JR	Pacific Telephone
1975	BARBOUR CLYDE	Pacific Telephone
1970	BARBOUR CLYDE	Pacific Telephone

2766 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	KERR DALE	Pacific Bell
1980	KERR DALE	Pacific Telephone
1975	KERR DALE	Pacific Telephone
1970	KERR DALE	Pacific Telephone

2770 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	JOHNSON VICTOR L	Pacific Bell
1980	EVANS REGINALD H	Pacific Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MCMILLAN KENNETH L	Pacific Telephone
1970	MCMILLAN KENNETH L	Pacific Telephone

2775 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	SHEPARD JAS WATT	Pacific Bell
1970	SHEPARD JAS WATT	Pacific Telephone

2834 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BROWN MELVIN	Pacific Telephone

2835 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	GIMENEZ DORY L	Pacific Telephone
1970	CANADA ROY E	Pacific Telephone

2845 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	CLOUGH SHERYL	Pacific Telephone

2849 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	ANDERSON EDMOND JR	Pacific Bell
1980	ANDERSON EDMOND JR	Pacific Telephone

2856 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	BASGALL JACOB & INEZ	Pacific Bell
1980	BASGALL JACOB & INEZ	Pacific Telephone
1975	BASGALL INEZ	Pacific Telephone
	BASGALL JACOB	Pacific Telephone
1970	BASGALL INEZ	Pacific Telephone
	BASGALL JACOB	Pacific Telephone

2862 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	NIELSEN KEITH F	Pacific Bell
1980	JOSE REYNALDO N	Pacific Telephone
1975	JOSE REYNALDO N	Pacific Telephone
1970	LINDSEY PAUL H	Pacific Telephone

FINDINGS

2867 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	PASCUA FROLAN	Pacific Bell
1980	PARAGAS RODRIGO	Pacific Telephone
1970	CONLEY ANNABELLE	Pacific Telephone
	MULLIN PEGGY	Pacific Telephone

2874 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	AZUCENAS ISAGANI	Pacific Telephone
1970	ATKINSON JOHN	Pacific Telephone

2877 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	YOUNG C V	Pacific Bell

3035 TYLER WAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1985	INFO LINE EL MONTE	Pacific Bell

W TYLER AVE

2846 W TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Krylo John F	Pacific Bell

2851 W TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Mc Clure Ed F	Pacific Bell

2855 W TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	King Dennis N & Sandra	Pacific Bell

2865 W TYLER AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1991	Paisley Ralph C	Pacific Bell

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

2806 Tyler Avenue and 11006-11028 Garvey Avenue

Address Not Identified in Research Source

2007, 2004, 2003, 2001, 2000, 1996, 1992, 1991, 1972, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched

10939 GARVEY AVE

Address Not Identified in Research Source

2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10944 GARVEY AVE

2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10949 GARVEY AVE

2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10949 GARVEY AVE

2012, 2007, 2004, 2003, 2001, 2000, 1996, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10950 E GARVEY AVE

2012, 2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10950 GARVEY AVE

2012, 2007, 2004, 2003, 2001, 2000, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10950 GARVEY AVE

2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

10960 GARVEY AVE

2007, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920



El Monte

2806 Tyler Avenue & 11006-11028 Garvey Avenue
South El Monte, CA 91733

Inquiry Number: 3721288.3

September 09, 2013

Certified Sanborn® Map Report

Certified Sanborn® Map Report

9/09/13

Site Name:

El Monte
2806 Tyler Avenue & 11006-
South El Monte, CA 91733

Client Name:

Stantec
15575 Los Gatos Boulevard
Los Gatos, CA 95032



EDR Inquiry # 3721288.3

Contact: Alicia Jansen

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Stantec were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: El Monte
Address: 2806 Tyler Avenue & 11006-11028 Garvey
City, State, Zip: South El Monte, CA 91733
Cross Street:
P.O. # 185803074
Project: NA
Certification # E5BE-40EA-A06F



Sanborn® Library search results
Certification # E5BE-40EA-A06F

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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El Monte

2806 Tyler Avenue & 11006-11028 Garvey Avenue
South El Monte, CA 91733

Inquiry Number: 3721288.4

September 09, 2013

EDR Historical Topographic Map Report

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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Historical Topographic Map



<p>N</p>	<p>TARGET QUAD</p> <p>NAME: PASADENA</p> <p>MAP YEAR: 1896</p>	<p>SITE NAME: El Monte</p> <p>ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue South El Monte, CA 91733</p>	<p>CLIENT: Stantec</p> <p>CONTACT: Alicia Jansen</p> <p>INQUIRY#: 3721288.4</p> <p>RESEARCH DATE: 09/09/2013</p>
	<p>SERIES: 15</p> <p>SCALE: 1:62500</p>	<p>LAT/LONG: 34.0624 / -118.0347</p>	

Historical Topographic Map



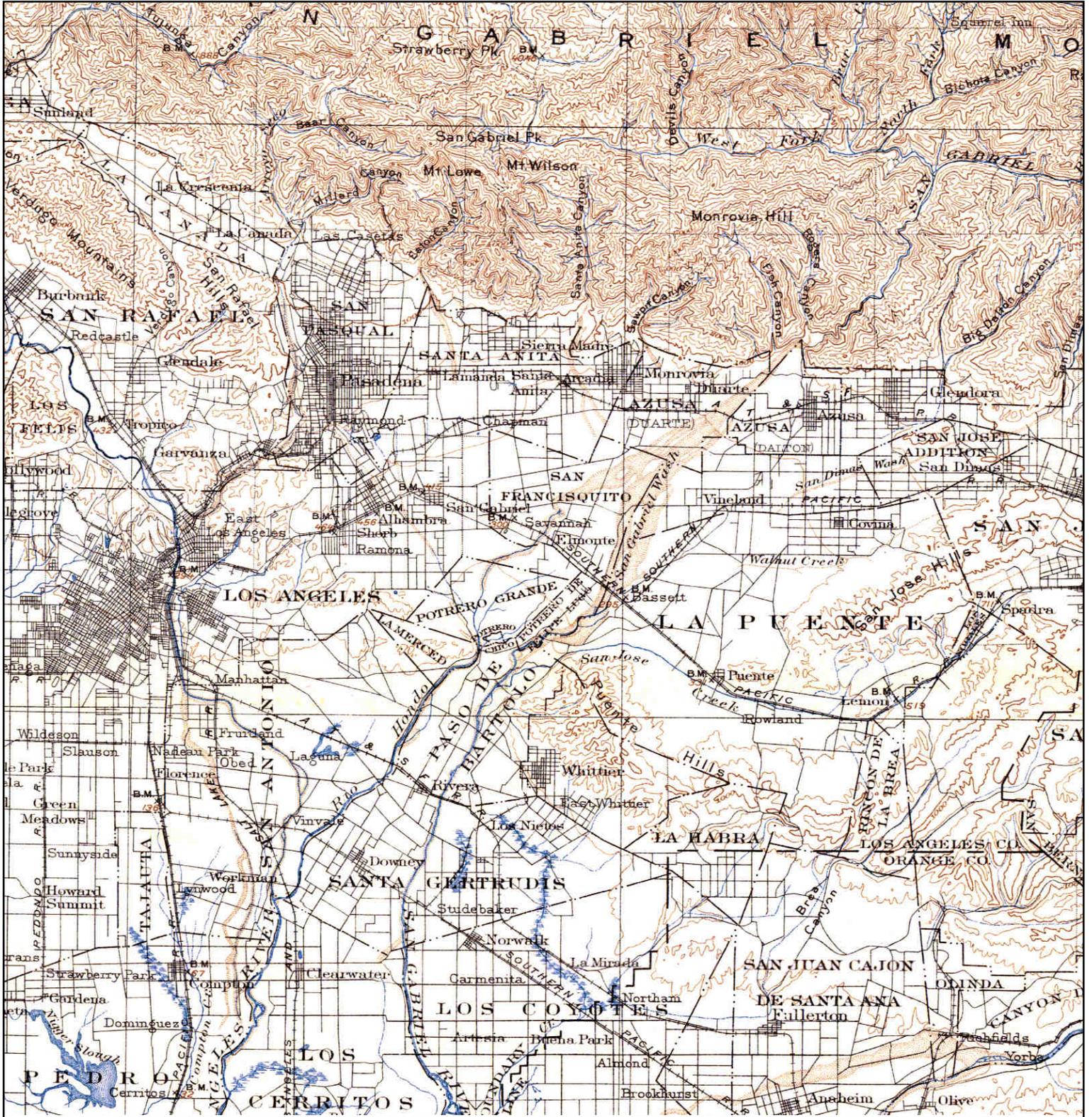
<p>N</p> 	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: PASADENA	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1900	Garvey Avenue	INQUIRY#: 3721288.4
	SERIES: 15	South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SCALE: 1:62500	LAT/LONG: 34.0624 / -118.0347	

Historical Topographic Map



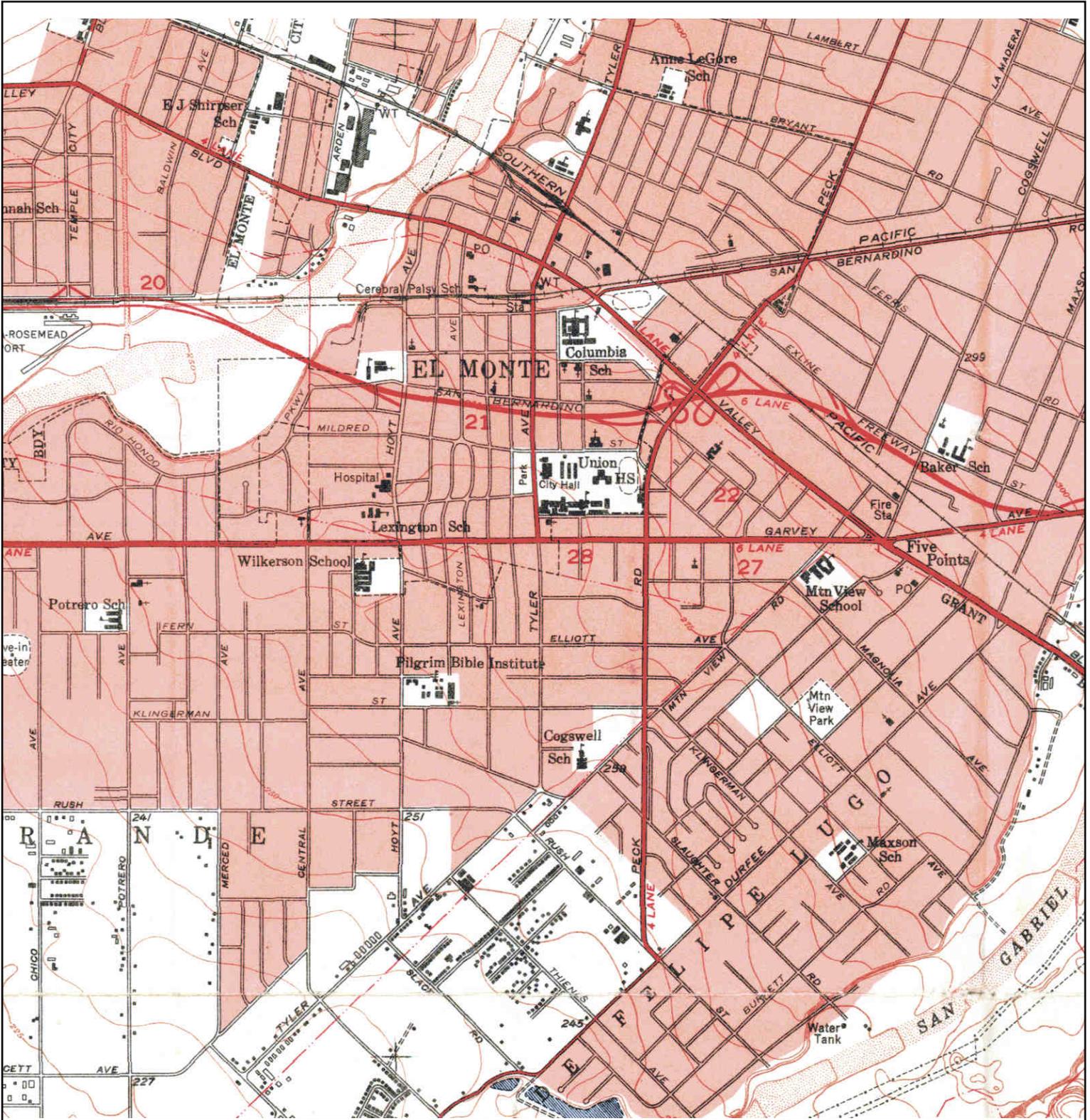
<p>N</p>	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: LOS ANGELES	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1900	Garvey Avenue	INQUIRY#: 3721288.4
	SERIES: 15	South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SCALE: 1:62500	LAT/LONG: 34.0624 / -118.0347	

Historical Topographic Map



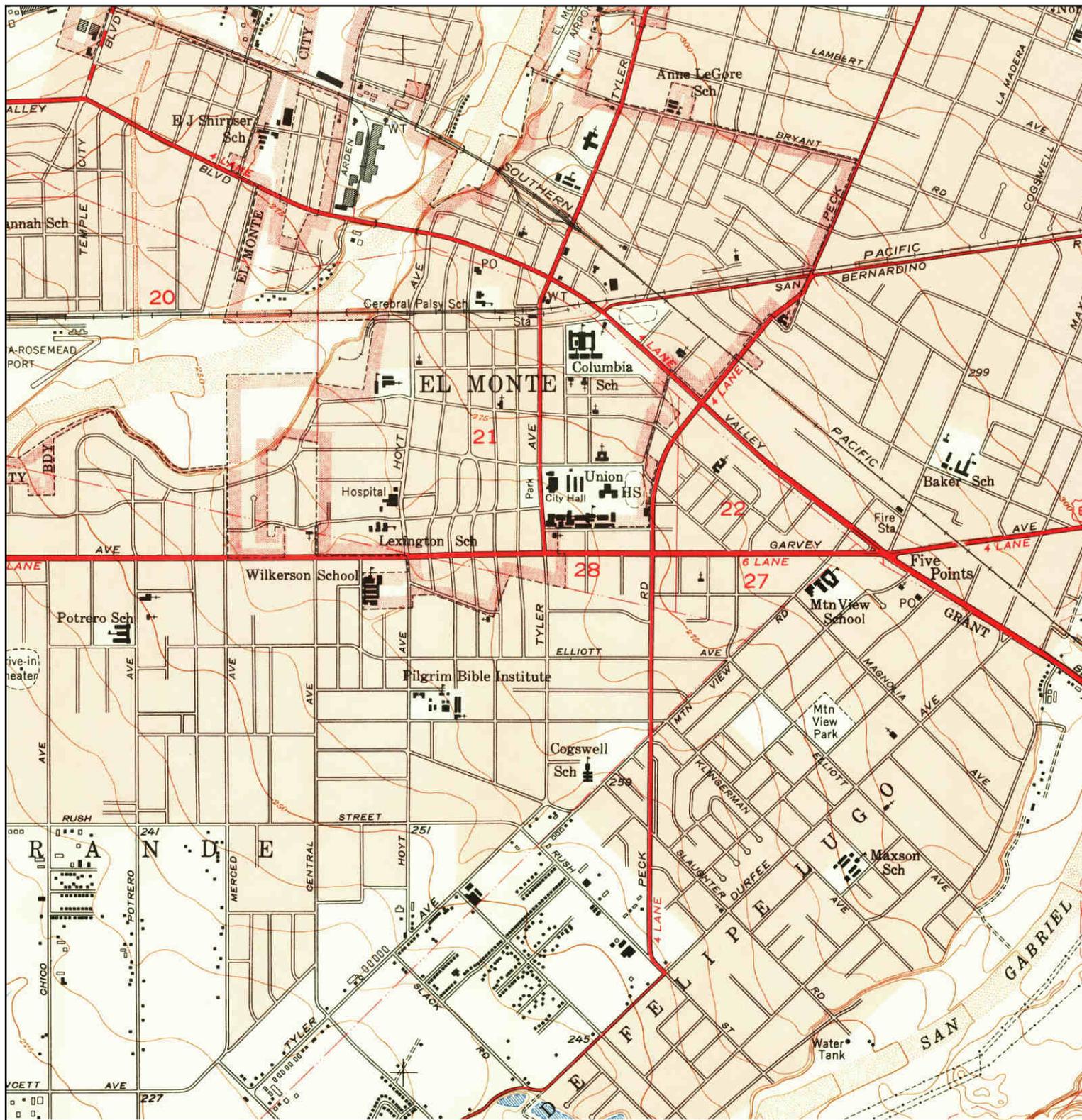
	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: SOUTHERN CA SHEET 1	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1901	Garvey Avenue	INQUIRY#: 3721288.4
		South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SERIES: 60	LAT/LONG: 34.0624 / -118.0347	
SCALE: 1:250000			

Historical Topographic Map



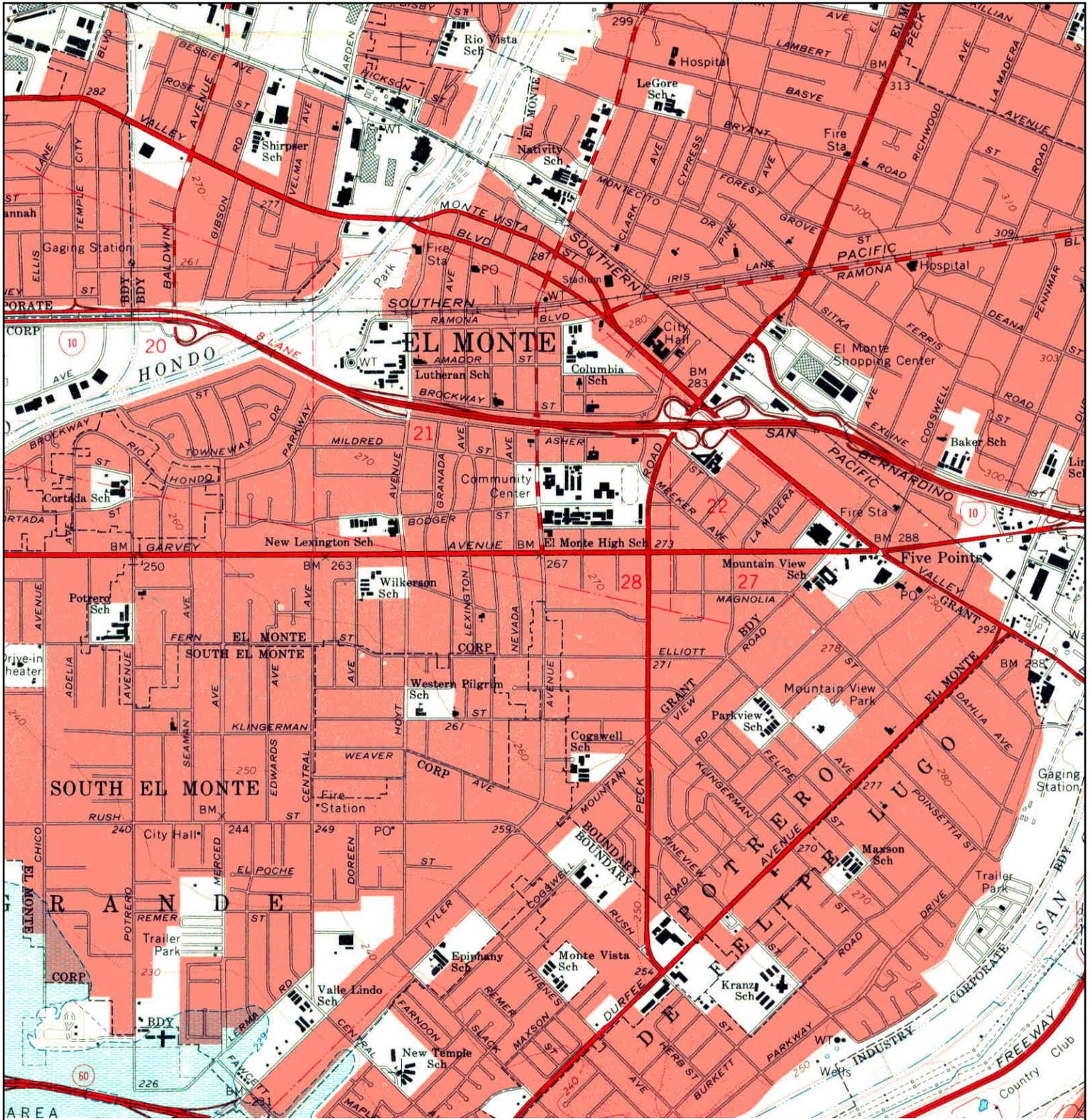
N 	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: LOS ANGELES AND VICINITY EAST 2 OF 4	ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue	CONTACT: Alicia Jansen
	MAP YEAR: 1953	South El Monte, CA 91733	INQUIRY#: 3721288.4
	SERIES: 7.5	LAT/LONG: 34.0624 / -118.0347	RESEARCH DATE: 09/09/2013
	SCALE: 1:24000		

Historical Topographic Map



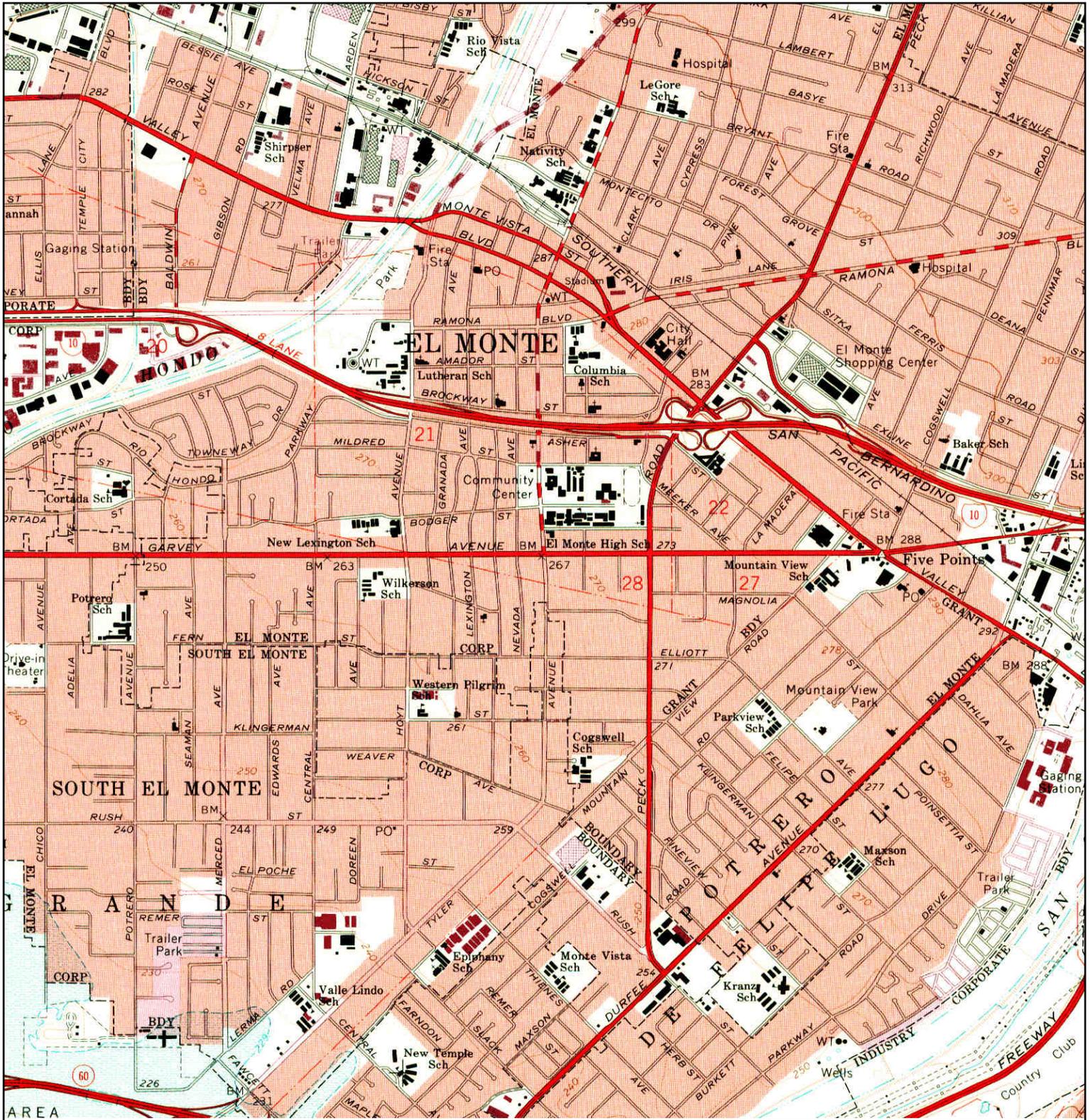
<p>N</p>	<p>TARGET QUAD NAME: EL MONTE MAP YEAR: 1953</p>	<p>SITE NAME: El Monte ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue South El Monte, CA 91733</p>	<p>CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY#: 3721288.4 RESEARCH DATE: 09/09/2013</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>	<p>LAT/LONG: 34.0624 / -118.0347</p>	

Historical Topographic Map



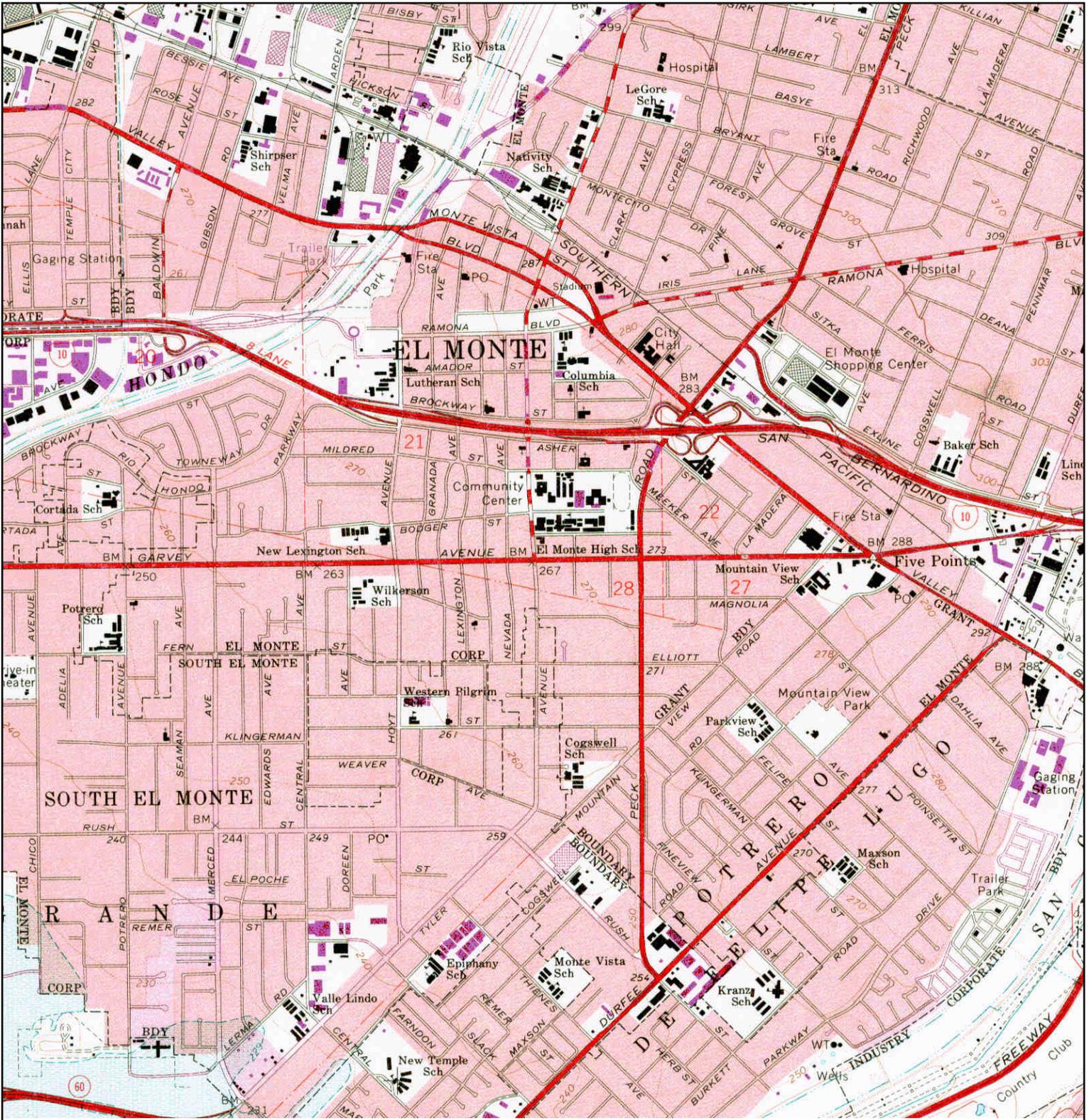
<p>N ↑</p>	<p>TARGET QUAD NAME: EL MONTE MAP YEAR: 1966</p>	<p>SITE NAME: El Monte ADDRESS: 2806 Tyler Avenue & 11006-11028 Garvey Avenue South El Monte, CA 91733</p>	<p>CLIENT: Stantec CONTACT: Alicia Jansen INQUIRY#: 3721288.4 RESEARCH DATE: 09/09/2013</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>	<p>LAT/LONG: 34.0624 / -118.0347</p>	

Historical Topographic Map



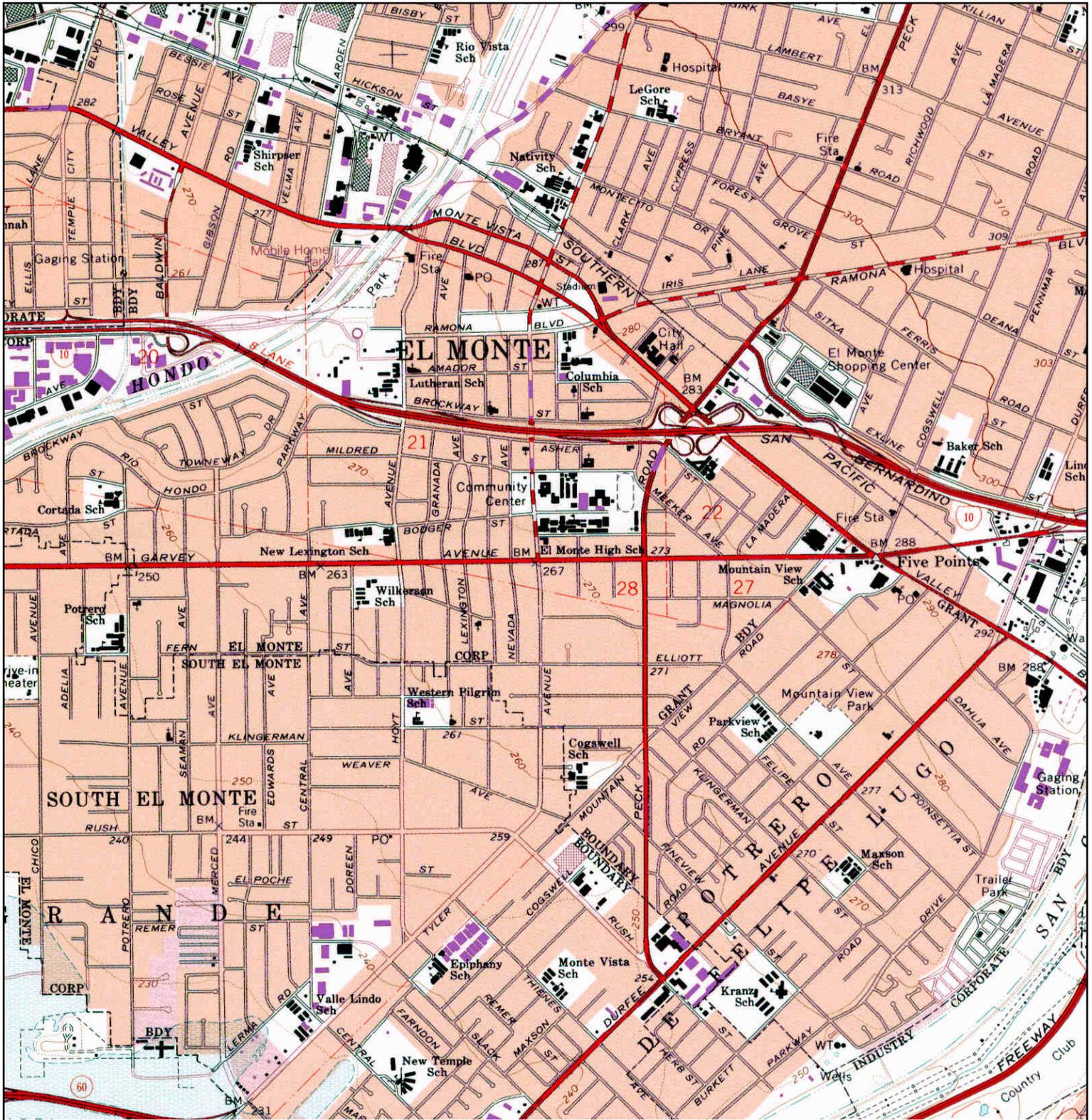
<p>N ↑</p>	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: EL MONTE	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1972	Garvey Avenue	INQUIRY#: 3721288.4
	PHOTOREVISED FROM :1966	South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SERIES: 7.5	LAT/LONG: 34.0624 / -118.0347	
	SCALE: 1:24000		

Historical Topographic Map



	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: EL MONTE	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1981	Garvey Avenue	INQUIRY#: 3721288.4
	PHOTOREVISED FROM :1966	South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SERIES: 7.5	LAT/LONG: 34.0624 / -118.0347	
	SCALE: 1:24000		

Historical Topographic Map



<p>N ↑</p>	TARGET QUAD	SITE NAME: El Monte	CLIENT: Stantec
	NAME: EL MONTE	ADDRESS: 2806 Tyler Avenue & 11006-11028	CONTACT: Alicia Jansen
	MAP YEAR: 1994	Garvey Avenue	INQUIRY#: 3721288.4
	REVISED FROM :1966	South El Monte, CA 91733	RESEARCH DATE: 09/09/2013
	SERIES: 7.5	LAT/LONG: 34.0624 / -118.0347	
	SCALE: 1:24000		



El Monte

2806 Tyler Avenue & 11006-11028 Garvey Avenue
South El Monte, CA 91733

Inquiry Number: 3721288.5

September 12, 2013

The EDR Aerial Photo Decade Package

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography September 12, 2013

Target Property:

2806 Tyler Avenue & 11006-11028 Garvey Avenue

South El Monte, CA 91733

<u><i>Year</i></u>	<u><i>Scale</i></u>	<u><i>Details</i></u>	<u><i>Source</i></u>
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	Laval
1948	Aerial Photograph. Scale: 1"=500'	Flight Year: 1948	EDR
1952	Aerial Photograph. Scale: 1"=500'	Flight Year: 1952	EDR
1960	Aerial Photograph. Scale: 1"=500'	Flight Year: 1960	Fairchild
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	EDR
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	EDR
1968	Aerial Photograph. Scale: 1"=500'	Flight Year: 1968	Teledyne
1972	Aerial Photograph. Scale: 1"=500'	Flight Year: 1972	EDR
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR



INQUIRY #: 3721288.5

YEAR: 1928

|—————| = 500'



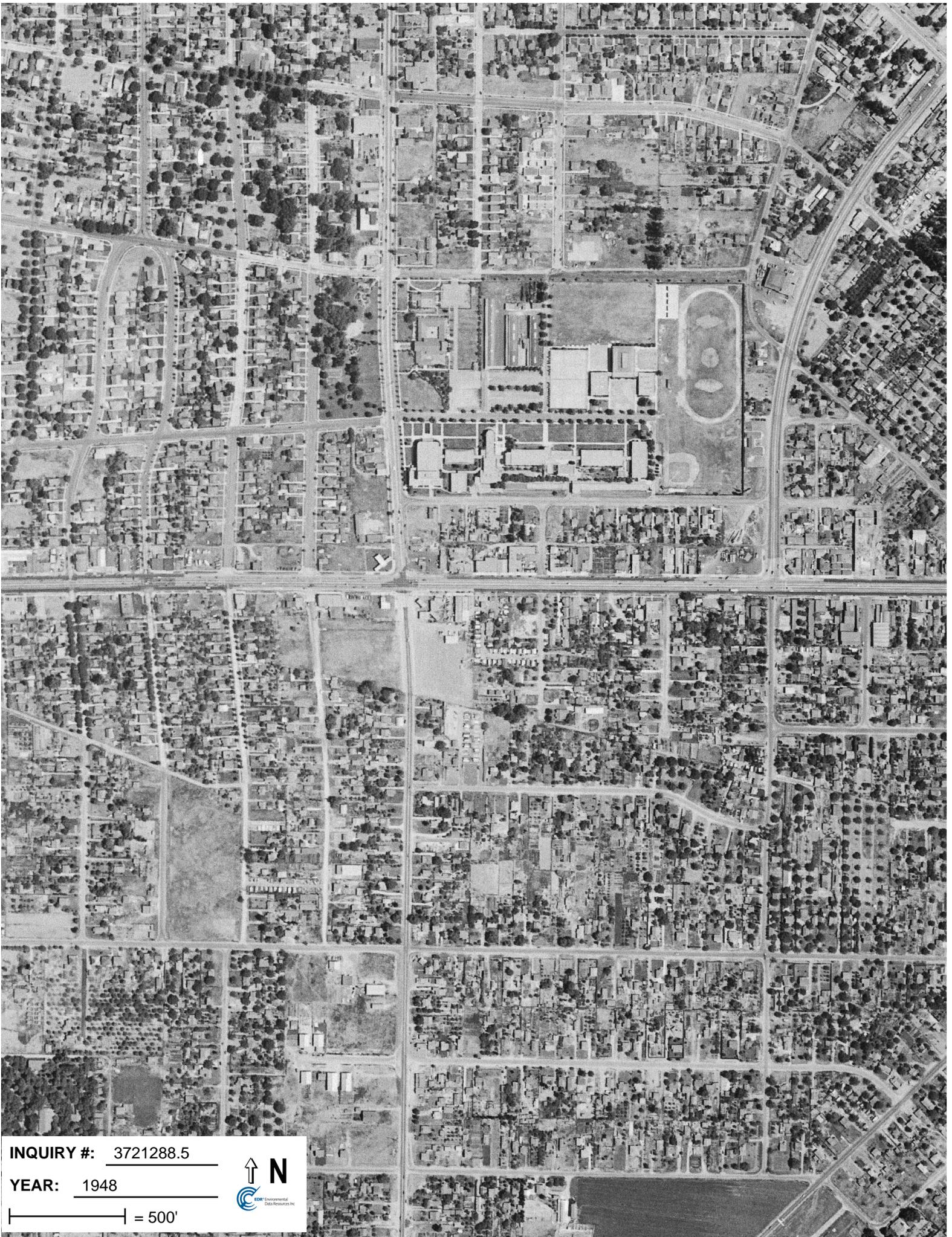


INQUIRY #: 3721288.5

YEAR: 1938

 = 500'





INQUIRY #: 3721288.5

YEAR: 1948

 = 500'



 Environmental Data Resources Inc.



INQUIRY #: 3721288.5

YEAR: 1952

 = 500'





INQUIRY #: 3721288.5

YEAR: 1968

|—————| = 500'





INQUIRY #: 3721288.5

YEAR: 1972

| = 500'





INQUIRY #: 3721288.5

YEAR: 1989

 = 500'





INQUIRY #: 3721288.5

YEAR: 1994

 = 500'





INQUIRY #: 3721288.5

YEAR: 2005

 = 500'



**APPENDIX D
SUPPLEMENTAL DOCUMENTATION**



Stantec

PHASE I ESA USER'S QUESTIONNAIRE

In order to qualify for protection from land owner liability under CERCLA as an *innocent landowner*, *bona fide prospective purchaser*, or *contiguous property owner*, ASTM standard practice E1527-05 and the federal AAI rule (40 CFR 312) require that the User of the Phase I ESA report provide certain information (if available) to the Environmental Professional completing the assessment. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Information that is not or cannot be provided to the Environmental Professional may be identified as a "data gap" in the Phase I ESA report.

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec Consulting Corporation along with the executed Authorization for Services form.

1. Property Information

Property Name: El Monte 2

Property Address: Corner of Garvey and Tyler

City: El Monte State: CA Zip: _____

Property Owner Name: Refoua/Farahan Enterprises

Property Owner Phone #: _____

2. Contact For Site Access

Name: Maurice Refoua

Company/Organization/Title: Refoua, LLC

Phone #: (310) 877-2354 E-Mail Address: Maurice@hrpropertygroup.com

3. Environmental Cleanup Liens. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

Yes No

If yes, describe or attach details of the lien: _____

4. Activity and Land Use Limitations. Are you aware of any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded as applicable to the property as a result of environmental contamination, investigation, cleanup, or related matters?

Yes No

If yes, describe or attach details of the limitations: _____



Stantec

PHASE I ESA USER'S QUESTIONNAIRE

5. **Specialized Knowledge or Experience.** As the User of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property, such that you would have specialized knowledge about chemicals and processes used by this type of business?

Yes No

If yes, describe or attach details of your specialized knowledge or experience _____

6. **Relationship of Purchase Price to Fair Market Value of Property.** Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, do you have any reason to believe that the reduced purchase price may be related to contamination known or believed to be present at the property?

Yes, I have reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

No, I have no reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property?

Not applicable. User is not involved in a purchase of the property.

7. **Commonly Known or Reasonably Ascertainable Information.** Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products? For example:

Do you know the past uses of the property?

Yes (describe) automotive sales and service

No

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?

Yes (describe) _____

No



Stantec

PHASE I ESA USER'S QUESTIONNAIRE

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?

Yes (describe) _____

No

Do you know of any environmental cleanups that have taken place at the property?

Yes (describe) _____

No

8. **The Degree of Obviousness of Contamination.** E1527-05 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation. Based on your knowledge and experience related to the property, are there any *obvious* indicators that point to the presence or likely presence of contamination at the property?

Yes (describe) historical automotive uses. _____

No

9. **Availability of Previous Environmental Reports.** Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition?

Yes (please identify and provide copies, if available) _____

No

Signature: _____

Name (printed): Joe Offelie

Title: Director of Development

Date: 9/10/13

**Updated and
Amended**



First American Title

First American Title Company

**1250 Corona Pointe Court, Ste 201
Corona, CA 92879**

Customer Reference:	El Monte-Garvey & Tyler
Order Number:	OSA-4415251 (50)
Title Officer:	Steven Clark
Phone:	(951)256-5878
Fax No.:	
E-Mail:	sclark@firstam.com
Escrow Officer:	Jeanne Gould
Phone:	(949)885-2405
Fax No.:	(714)913-6372
E-Mail:	jagould@firstam.com
Buyer:	City Ventures Homebuilding, LLC
Property:	11022-11048 east Garvey Avenue El Monte, CA

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Exhibit A attached. *The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties.* Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Exhibit A. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of August 27, 2013 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

to be determined

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

Garvey Tyler, LLC, a California limited liability company, as to an undivided 75% interest, and Refoua, LLC, a California limited liability company, as to an undivided 25% interest, subject to Exceptions 14 and 15

The estate or interest in the land hereinafter described or referred to covered by this Report is:

A fee.

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2013-2014, a lien not yet due or payable.
2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.
3. An easement for public utilities and incidental purposes, recorded in Book 4484 Page 76 of Deeds.
In Favor of: the Pacific Telephone and Telegraph Company
Affects: as described therein
4. Intentionally Deleted
5. An easement for pipelines and incidental purposes in the document recorded January 30, 1934 as Instrument No. 1335-C of Torrens.
6. An easement for public utilities and incidental purposes, recorded July 12, 1945 as Instrument No. 11602-N of Torrens.
In Favor of: Southern California Telephone Company
Affects: said land

7. An easement for water pipes, valves, meters, or other accessory equipment and incidental purposes in the document recorded in Book 12022, Page 372 of Official Records.
8. An easement for public utilities and incidental purposes, recorded March 14, 1961 as Instrument No. 2844 of Official Records.
In Favor of: The Pacific Telephone and Telegraph Company
Affects: Southerly 10 feet of the northerly 221 feet of said land
9. An easement for public utilities and incidental purposes, recorded August 22, 1961 as Instrument No. 4245 of Official Records.
In Favor of: Southern California Edison Company
Affects: Southerly 10 feet of the northerly 221 feet of said land
10. The terms and provisions contained in the document entitled "Covenant and Agreement" recorded July 14, 1966 as Instrument No. 2182 of Official Records.
11. A deed of trust to secure an original indebtedness of \$3,399,731.24 recorded December 23, 2009 as Instrument No. 20091957248 of Official Records.
Dated: October 3, 2009
Trustor: Garvey Tyler, LLC, a California limited liability company, as to an undivided 75% interest, and Refoua, LLC, a California limited liability company, as to an undivided 25% interest
Trustee: Stewart Title of California, Inc.
Beneficiary: Bank Leumi USA

A document entitled Assignment of Rents recorded December 23, 2009 as Instrument No. 20091957249 of Official Records, as additional security for the payment of the indebtedness secured by the deed of trust.

12. The terms and provisions contained in the document entitled "Hazardous Substances Certificate and Indemnity Agreement" recorded December 23, 2009 as Instrument No. 20091957250 of Official Records.
13. A financing statement recorded December 23, 2009 as Instrument No. 20091957251 of Official Records.
Debtor: Garvey Tyler LLC and Refoua LLC
Secured party: Bank Leumi
14. The effect of a deed dated September 1, 2011, executed by Garvey Tyler, LLC, as Grantor, to Refoua, LLC, as to an undivided 50% interest, as Grantee, recorded September 23, 2011, as Instrument No. Instrument No. 20111295607 of Official Records.

The requirement that this office be furnished with evidence that the deed was an absolute conveyance for value, and that there are no other agreements, oral or written, regarding the ownership of the land described herein.

15. The effect of a deed dated September 1, 2011, executed by Garvey Tyler, LLC, as Grantor, to Farahan Enterprises, LLC, an Indiana limited liability company, as to an undivided 25% interest,

as Grantee, recorded September 23, 2011, as Instrument No. Instrument No. 20111295608 of Official Records.

The requirement that this office be furnished with evidence that the deed was an absolute conveyance for value, and that there are no other agreements, oral or written, regarding the ownership of the land described herein.

16. Water rights, claims or title to water, whether or not shown by the public records.
17. An easement shown or dedicated on the Map as referred to in the legal description
For: sanitary sewer and incidental purposes.

Said map recites that said easement;: "To be recorded by separate document".

18. Rights of parties in possession.

Prior to the issuance of any policy of title insurance, the Company will require:

19. With respect to Garvey Tyler, a limited liability company:
 - a. A copy of its operating agreement and any amendments thereto;
 - b. If it is a California limited liability company, that a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) be recorded in the public records;
 - c. If it is a foreign limited liability company, that a certified copy of its application for registration (LLC-5) be recorded in the public records;
 - d. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, that such document or instrument be executed in accordance with one of the following, as appropriate:
 - (i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such document must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;
 - (ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.
 - e. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.
20. With respect to Refoua, a limited liability company:
 - a. A copy of its operating agreement and any amendments thereto;
 - b. If it is a California limited liability company, that a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) be recorded in the public records;
 - c. If it is a foreign limited liability company, that a certified copy of its application for registration (LLC-5) be recorded in the public records;
 - d. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, that such document or instrument be

executed in accordance with one of the following, as appropriate:

(i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such document must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;

(ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.

e. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.

21. With respect to Farahan Enterprises, a limited liability company:

a. A copy of its operating agreement and any amendments thereto;

b. If it is a California limited liability company, that a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) be recorded in the public records;

c. If it is a foreign limited liability company, that a certified copy of its application for registration (LLC-5) be recorded in the public records;

d. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, that such document or instrument be executed in accordance with one of the following, as appropriate:

(i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such document must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;

(ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.

e. Other requirements which the Company may impose following its review of the material required herein and other information which the Company may require.

INFORMATIONAL NOTES

Note: The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than the certain dollar amount set forth in any applicable arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. If you desire to review the terms of the policy, including any arbitration clause that may be included, contact the office that issued this Commitment or Report to obtain a sample of the policy jacket for the policy that is to be issued in connection with your transaction.

1. According to the latest available equalized assessment roll in the office of the county tax assessor, there is located on the land a(n) Commercial Structure known as 11022-11048 east Garvey Avenue, El Monte, California.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

WIRE INSTRUCTIONS
for
First American Title Company

**First American Trust, FSB
5 First American Way
Santa Ana, CA 92707**

**ABA 122241255
Credit to First American Title Company
Account No. 3034770000; name change with move 4/12/13**

Reference Escrow Order Number OSA-4415251, and Escrow Officer Jeanne Gould

Please wire the day before recording. Also, notify the Escrow Officer of your intent to wire.

Funds for other loans being insured by First American Title Company must not be combined into one wire or funds may be returned.

LEGAL DESCRIPTION

Real property in the City of El Monte, County of Los Angeles, State of California, described as follows:

PARCEL 1 OF PARCEL MAP NO. 691, IN THE CITY OF EL MONTE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 360, PAGE 42 AND 43 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 8105-001-049 and 8105-001-050

OFFICE OF THE ASSESSOR
COUNTY OF LOS ANGELES
COPYRIGHT © 2002

SEARCH NO

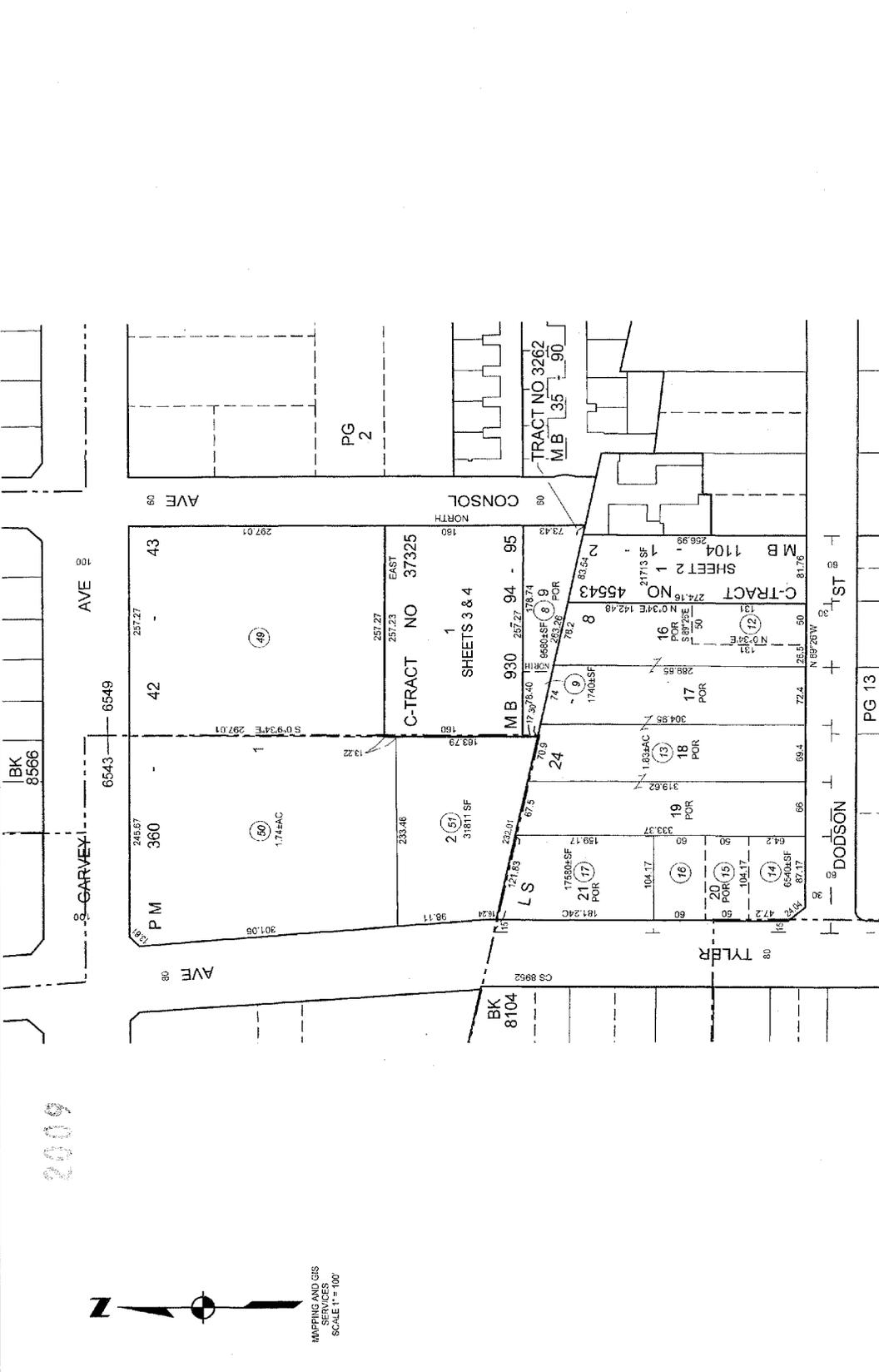
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SHEET 1

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NOTICE

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

If you have any questions about the effect of this new law, please contact your local First American Office for more details.

**EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)**

**CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
 - (a) building;
 - (b) zoning;
 - (c) land use;
 - (d) improvements on the Land;
 - (e) land division; and
 - (f) environmental protection.

This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.

2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
 - (a) that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - (b) that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - (c) that result in no loss to You; or
 - (d) that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.

5. Failure to pay value for Your Title.

6. Lack of a right:
 - (a) to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - (b) in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows: For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
Covered Risk 18: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 19: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 21: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$5,000.00

**ALTA RESIDENTIAL TITLE INSURANCE POLICY (6-1-87)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
 - (a) and use
 - (b) improvements on the land
 - (c) and division
 - (d) environmental protection

This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.

This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.

2. The right to take the land by condemning it, unless:
 - (a) a notice of exercising the right appears in the public records on the Policy Date
 - (b) the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking
3. Title Risks:
 - (a) that are created, allowed, or agreed to by you
 - (b) that are known to you, but not to us, on the Policy Date -- unless they appeared in the public records
 - (c) that result in no loss to you
 - (d) that first affect your title after the Policy Date -- this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
 - (a) to any land outside the area specifically described and referred to in Item 3 of Schedule A OR
 - (b) in streets, alleys, or waterways that touch your land

This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not known to the Company, not recorded in the Public Records at Date of Policy, but known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 - (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 or 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (07-26-10)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.



Privacy Information

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our subsidiaries we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information that you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its Fair Information Values.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's Fair Information Values. We currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Information Obtained Through Our Web Site

First American Financial Corporation is sensitive to privacy issues on the Internet. We believe it is important you know how we treat the information about you we receive on the Internet. In general, you can visit First American or its affiliates' Web sites on the World Wide Web without telling us who you are or revealing any information about yourself. Our Web servers collect the domain names, not the e-mail addresses, of visitors. This information is aggregated to measure the number of visits, average time spent on the site, pages viewed and similar information. First American uses this information to measure the use of our site and to develop ideas to improve the content of our site. There are times, however, when we may need information from you, such as your name and email address. When information is needed, we will use our best efforts to let you know at the time of collection how we will use the personal information. Usually, the personal information we collect is used only by us to respond to your inquiry, process an order or allow you to access specific account/profile information. If you choose to share any personal information with us, we will only use it in accordance with the policies outlined above.

Business Relationships

First American Financial Corporation's site and its affiliates' sites may contain links to other Web sites. While we try to link only to sites that share our high standards and respect for privacy, we are not responsible for the content or the privacy practices employed by other sites.

Cookies

Some of First American's Web sites may make use of "cookie" technology to measure site activity and to customize information to your personal tastes. A cookie is an element of data that a Web site can send to your browser, which may then store the cookie on your hard drive. FirstAm.com uses stored cookies. The goal of this technology is to better serve you when visiting our site, save you time when you are here and to provide you with a more meaningful and productive Web site experience.

Fair Information Values

Fairness We consider consumer expectations about their privacy in all our businesses. We only offer products and services that assure a favorable balance between consumer benefits and consumer privacy.

Public Record We believe that an open public record creates significant value for society, enhances consumer choice and creates consumer opportunity. We actively support an open public record and emphasize its importance and contribution to our economy.

Use We believe we should behave responsibly when we use information about a consumer in our business. We will obey the laws governing the collection, use and dissemination of data.

Accuracy We will take reasonable steps to help assure the accuracy of the data we collect, use and disseminate. Where possible, we will take reasonable steps to correct inaccurate information. When, as with the public record, we cannot correct inaccurate information, we will take all reasonable steps to assist consumers in identifying the source of the erroneous data so that the consumer can secure the required corrections.

Education We endeavor to educate the users of our products and services, our employees and others in our industry about the importance of consumer privacy. We will instruct our employees on our fair information values and on the responsible collection and use of data. We will encourage others in our industry to collect and use information in a responsible manner.

Security We will maintain appropriate facilities and systems to protect against unauthorized access to and corruption of the data we maintain.

**PHASE II ENVIRONMENTAL SITE
ASSESSMENT**

Multiple Commercial Parcels
SEC Tyler and Garvey Avenues
El Monte, California 91733
Stantec Project No: 185803086



Prepared for:
City Ventures
1900 Quail Street
Newport Beach, California 92660

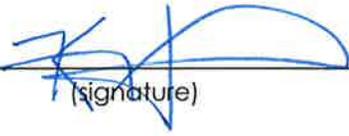
Prepared by:
Stantec Consulting Services Inc.
25864-F Business Center Drive
Redlands, California

April 15, 2014

Sign-off Sheet

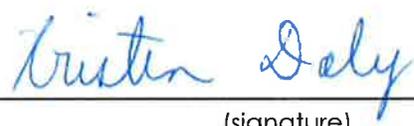
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Prepared by _____


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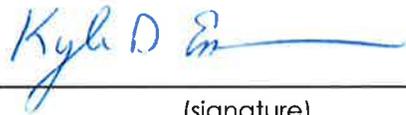
for
Hiram Romero, Associate Engineer

Reviewed by _____


(signature)

Kristen Daly, Project Geologist

Approved by _____


(signature)

Kyle Emerson, Managing Principal Geologist, C.E.G. 1271

PHASE II ENVIRONMENTAL SITE ASSESSMENT

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Executive Summary

The subject property consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California (the "Site"). Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations, including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

Stantec conducted a Phase I environmental site assessment (ESA) and identified the following recognized environmental condition (RECs) associated with Site:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth. Stantec identified these uses and the presence and use of petroleum hydrocarbons and solvents as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building. Stantec identified these hydraulic lifts and the former automobile repair as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including the assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

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11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, a underground storage tank (UST) and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommended soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec has identified these items as RECs to the Site.

Stantec recommended that a Phase II ESA be completed to assess the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard. Stantec has identified these items as RECs to the Site.

Stantec recommended conducting a Phase II ESA to assessment the potential impacts to soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations was addressed by the assessment of the previous service station in the northwest corner of the Site.

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To address the RECs listed above, Stantec oversaw the advancement of twenty-two (22) borings at the Site. Stantec concludes that the scope of this Phase II subsurface investigation was sufficient to evaluate the RECs listed above.

Soils encountered during the investigation consisted of silt, silty sand, and some clay. No groundwater was encountered in any of the boreholes. No staining or hydrocarbon odors were observed in any of the boreholes.

RESULTS

The results of the completed assessment are presented below:

Soil Samples

No total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were reported above laboratory reporting limits in any of the soil samples collected, with the exception of tetrachloroethene (PCE) at location SB-16-5, which was reported at 0.002 milligrams per kilogram (mg/kg) (see Table 1). This concentration is well below regulatory threshold for cleanup requirements.

Laboratory analysis for metals of sample SB-4-5 (located in the auto repair bays of the property at 11048 Garvey) reported barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc above laboratory reporting limits. None of the results, however, were above residential California Human Health Screening Levels (CHHSLs) for these metals and in each case were comparable to typical naturally-occurring California background levels for each metal. Based on the results of this sampling Stantec concludes that metals do not appear to be an issue at the Site.

Stantec concludes that impacts to soil do not represent a recognized environmental condition and recommends no further action or investigation regarding this issue. However, historical operations involved the storage and use of materials containing the detected compounds, and unreported releases may have occurred. In the event that any previously-undiscovered impacts to soil are discovered during site development activities, Stantec recommends investigating and addressing the newly-discovered areas of impact.

Soil Gas Samples

Of the fourteen (14) soil gas sample locations sampled at the Site, tetrachloroethylene (PCE) was reported in all of the samples collected, with a maximum reported concentration of 2.54 micrograms per liter (ug/L). Toluene was reported in all but three (3) of the samples collected (*i.e.*, non-detect in SV-5, SV-8, and SV-21) at a maximum concentration of 0.429 ug/L. Xylenes were reported in samples SV-11, SV-19, and SV-22 above laboratory reporting limits at a maximum concentration of 0.214 ug/L. Benzene was reported in one sample at a concentration of 0.010 ug/L. With the exception of PCE, VOCs were reported either below CHHSLs or, where no CHHSL is in effect, at exceedingly low concentrations that do not represent an environmental concern to the Site. With respect to PCE, concentrations of PCE above CHHSLs were reported at

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SV-1, SV-3, SV-11, SV-12, SV-16, and SV-19. Except as listed above, no VOCs were reported above laboratory reporting limits.

The detected impacts to soil vapor, particularly by PCE, are not localized and appears to exist across most of the Site. The areas where PCE were detected at levels above CHHSLs are concentrated in three locations that include (1) the eastern portion of the auto repair shop along Consol Avenue at address 11048 Garvey, (2) the drain area of the flooring warehouse at address 2880 Tyler, and (3) the parts washer area of the auto body shop at address 2818 Tyler. To date, Stantec's assessment has detected no discrete source in soil for the elevated contaminant levels in soil vapor.

Because the source cannot be located, Stantec recommends preparing a human health risk assessment (HHRA) for the Site in order to determine whether and where any mitigation measures must be implemented in regard to the detected impacts in soil vapor. The HHRA will determine which buildings will require protection.

In addition, because the actual source of impact to soil has not been identified based on the soil sampling completed, Stantec recommends performing visual inspections during Site grading activities to identified previously-undiscovered impacts to soil, which should be addressed via excavation and off-site disposal.

It has been a pleasure to provide environmental consulting services for you on this project and we look forward to working with you in the future. Should there be any questions regarding the information provided within the accompanying report, please do not hesitate to contact the undersigned at (909) 335-6116.

Respectfully submitted,
STANTEC CONSULTING SERVICES INC.


Hiram Romero
Associate Engineer


Kyle D. Emerson, CEG 1271
Managing Principal Geologist

PHASE II ENVIRONMENTAL SITE ASSESSMENT

INTRODUCTION

April 15, 2014

1.0 INTRODUCTION

This report documents the methodology and results of a Phase II Environmental Site Assessment (ESA) investigation completed by Stantec Consulting Services Inc. (Stantec) for the multiple commercial parcels located at 2818 and 2880 Tyler Avenue, 11022 and 11048-11068 Garvey Avenue, within the City of El Monte, County of Los Angeles (the "Site"). The scope of work and the results of the investigation are described in subsequent sections. The following subsections provide the site description and a summary of past operations.

1.1 SITE DESCRIPTION AND OPERATIONS

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California. Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

1.2 SITE GEOLOGY AND HYDROGEOLOGY

The Site is located in Los Angeles County. The area is located within the Peninsular Ranges Geomorphic Province, which includes northwest-southeast trending mountain ranges and valleys that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The stratigraphy underlying the Site consists primarily of recent-age alluvium (CDMG, 1965).

The Site is at an elevation of approximately 270 feet above mean sea level. The regional topographic gradient is to the southwest (USGS, 1966).

The closest mapped recently-active fault is a fragment of the Whittier Fault located approximately 2 miles southwest (CGS, 2010). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary but is within a liquefaction zone (CDMG, 2000).

The Site is located within the San Gabriel Valley Groundwater Basin. The basin is located within the eastern portion of Los Angeles County and includes most of San Gabriel Valley and part of the Santa Ana Valley. The basin is constrained by bedrock and faults on all sides. Several aquifers are present in the basin and water-bearing units consist of Holocene alluvium up to 4,100 feet in thickness and Pleistocene marine deposits up to 2,000 feet in thickness (Department of Water Resources [DWR], 2004). Groundwater in this area is estimated to be between 55 and 80 feet below ground surface (bgs) with a general flow to the southwest as based on

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INTRODUCTION

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information available on Geotracker for a facility located approximately 950 feet to the west (State Water Resources Control Board [SWRCB], 2013).

PHASE II ENVIRONMENTAL SITE ASSESSMENT

BACKGROUND INFORMATION

April 15, 2014

2.0 BACKGROUND INFORMATION

Stantec identified the following recognized environmental condition (RECs) associated with Site:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth. Stantec identified these uses and the presence and use of petroleum hydrocarbons and solvents as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building. Stantec identified these hydraulic lifts and the former automobile repair as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including the assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, a underground storage tank (UST) and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommended soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec has identified these items as RECs to the Site.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

BACKGROUND INFORMATION

April 15, 2014

Stantec recommended that a Phase II ESA be completed to assess the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard. Stantec has identified these items as RECs to the Site.

Stantec recommended conducting a Phase II ESA to assessment the potential impacts to soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations was addressed by the assessment of the previous service station in the northwest corner of the Site.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIELD INVESTIGATION PROGRAM
April 15, 2014

3.0 FIELD INVESTIGATION PROGRAM

3.1 SCOPE OF WORK

The scope of work consisted of the following general elements:

Task 1: Pre-Drilling Activities

Prior to the commencement of fieldwork activities Stantec made the following preparations:

- As required by law, Stantec visited the Site to mark the proposed boring locations and acquire a current Underground Service Alert (USA) ticket number prior to commencement of Site drilling activities.
- In accordance with federal OSHA regulations (29 CFR, Section 1910.120), Stantec developed a site specific Health and Safety Plan (HASP) for the subject property. All Stantec personnel and subcontractors associated with the project were required to be familiar with, and comply with, all provisions of the HASP.

Task 2: Field Investigation

Stantec provided the services of a field geologist or engineer to supervise and direct all onsite activities. All work was conducted under the supervision of a State of California registered professional and include the following:

Soil and Soil Gas Sampling:

- 2818 Tyler Avenue
Stantec advanced four (4) soil borings: one (1) in the storage shed, one (1) by each former hydraulic lift and one (1) in the vicinity of the paint booth and parts washer. Soil vapor samples were collected from the storage shed, and parts washer/paint booth locations; the samples were collected from a depth of 5 feet below ground surface (bgs). Soil borings were advanced to a depth of five (5) feet bgs in the vicinity of the storage shed and the parts washer/paint booth and to 15 feet bgs next to the former hydraulic lifts.
- 2880 Tyler Avenue
Stantec advanced eight (8) soil borings: six (6) in the vicinity of the former hydraulic lifts (one per two former hydraulic lifts), one (1) along the trench in the warehouse, and one (1) near the drain in the exterior parking area. Soil vapor samples were collected from three (3) locations; samples were collected from a depth of 5 feet bgs. Soil borings were advanced to a depth of five (5) feet bgs in the vicinity of the trench and drain, and to a depth of 15 feet bgs in the vicinity of the former hydraulic lifts.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIELD INVESTIGATION PROGRAM

April 15, 2014

- 11022 Garvey Avenue
Stantec advanced three (3) soil borings: two (2) in the vicinity of the former fueling canopy and one (1) boring in the vicinity of the former UST. Soil vapor samples were collected from each location from a depth of 5 feet bgs. The soil borings were advanced to a depth of 20 feet bgs in the vicinity of the former canopy and to 15 feet bgs in the vicinity of the former UST.
- 11048 Garvey Avenue
Stantec advanced two (2) soil borings on the car sales lot: one (1) each in the vicinity of the drain and concrete patch with soil vapor samples collected from each location from a depth of 5 feet. The soil borings will be advanced to a depth of 5 and 15 feet bgs, respectively.

Five (5) soil borings at the car repair shop: three (3) in the car repair bays near the drum storage area and most significant staining, one (1) near the hydraulic lift and one (1) in the yard in the area of most significant staining, with soil vapor samples collected from each location, except SV-2, from a depth of 5 feet bgs. The soil borings were advanced to a depth of 10 feet bgs.
- Dispose of soil cuttings and waste water from the job site as appropriate.

3.2 SAMPLING PROCEDURES

Soil Sampling

Soil boring locations were hand augered within the upper five feet for utility clearance. Once the five foot depth had been reached, each of the boring locations was further advanced using a Geoprobe direct push rig. During advancement at each location, sampling of subsurface soils was performed starting at a depth of 6 inches, five feet bgs and subsequently every five feet starting at 5 feet bgs using a 12-inch long by 1.25-inch inner diameter stainless steel sampler with acetate inserts. At each sampling interval, the sampler was driven into undisturbed soil using a hydraulic ram on the Geoprobe rig until 12 inches of penetration was achieved. Upon advancement of the sampler to the desired sampling depth interval, the steel rods were extracted from the boring and the sample sleeves were removed. The drilling and sampling sequence was then repeated for the entire depth of each boring.

Upon extracting the sampler at each depth interval, the soils contained therein were visually examined by Stantec field personnel who then classified the soils in accordance with the unified soil classification system (USCS). A photo-ionization detector (PID) was also used to monitor the soils collected for volatile organic compound (VOC) vapors. Soil was removed from the steel sleeve and placed in a zip-lock type baggie and the PID probe was inserted into the baggie to monitor the headspace for VOC vapors.

After classification and VOC vapor evaluation, the soil samples were collected from the bottom portion of the acetate liner. All soil samples were carefully packaged for chemical analysis by sealing the sleeve with Teflon sheets, plastic end-caps, and non-VOC tape. After the sleeve was sealed, it was labeled with the appropriate identification information (boring number, sample

PHASE II ENVIRONMENTAL SITE ASSESSMENT

FIELD INVESTIGATION PROGRAM

April 15, 2014

depth, sample collection date, and sample collection time). The samples were then logged on a chain-of-custody form and placed in an ice-filled cooler for transport to the laboratory. Copies of the chain-of-custody forms are included as Appendix A.

Soil Gas Sampling

Soil gas sampling points were installed by pushing the Geoprobe tip to the desired bottom depth, removing the rods and then lowering a diffuser point connected to 1/8-inch Tygon or polyethylene tubing to the target depth. The diffuser point was then backfilled with approximately one foot of sand and then backfilled with bentonite. Samples analyzed by the mobile laboratory were collected using a syringe attached to a stopcock to prevent dilution from atmospheric air.

All samples were collected at a flow rate of 200 milliliters per minute (ml/min). Based on results of the purge volume test performed on February 11, 2014, samples across the Site were collected after purging three dead space air volumes since all purging levels yielded the same results for the compounds of greatest interest.

To assess the potential for air leakage between the sample point and surface, a tracer gas mixture of n-propanol and n-pentane was placed at the surface seal at the time of sampling and then tested as one of the analytes in the EPA Method 8260B method.

One duplicate sample was collected and submitted to the laboratory for Quality Assurance/Quality Control (QA/QC) purposes. The COC records for the samples collected from the borings are presented in Appendix A.

3.3 BORING ABANDONMENT PROCEDURES

Following the completion of drilling and soil sampling, borings were abandoned by removing the sampling equipment from the borehole and subsequently backfilling with bentonite cement grout. Concrete surfaces were patched with concrete to match the surrounding surface conditions.

3.4 DECONTAMINATION PROCEDURES

To maintain quality control during soil sampling, prior to each sampling interval, the sampling equipment was decontaminated in an Alconox scrub solution and double-rinsed, first with tap water followed by a final rinse using distilled water. In addition, prior to, and between each boring advanced, the hollow steel rods were cleaned following the same protocol.

3.5 WASTE DISPOSAL

All soil cuttings and purge/decon-water generated during this investigation were placed in DOT approved 16-gallon drums and labeled with the appropriate identification. Drums were temporarily stored on-site prior to removal and proper disposal.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

LABORATORY TESTING PROGRAM
April 15, 2014

4.0 LABORATORY TESTING PROGRAM

A total of seventeen (17) soil gas samples (thirteen (13) samples plus purge volume and duplicate samples) and twenty-two (22) soil samples collected during this investigation were delivered under chain-of-custody (Appendix A) to Jones Environmental Incorporated (JEI) based out of Fullerton, California. JEI is certified to perform hazardous waste testing by the State of California Department of Health Services, Environmental Laboratory Accreditation Program.

Twenty-two (22) soil samples were analyzed for total petroleum hydrocarbons (TPH) full range by EPA test method 8015m and thirteen (13) for volatile organic compounds (VOCs) by EPA test method 8260b from the Site. One (1) soil samples was analyzed for Title 22 Metals by EPA test method 6010b. Seventeen (17) soil gas samples were analyzed for VOCs by EPA test method 8260b. Analytical results are tabulated in Tables 1 through 3. Analytical laboratory test results are included in Appendix A and discussed in Section 5.0.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

INVESTIGATION RESULTS

April 15, 2014

5.0 INVESTIGATION RESULTS

5.1 FIELD OBSERVATIONS

Between the dates of February 10th through 12th, 2014, Stantec personnel oversaw the advancement of twenty-two (22) borings at the Site. Soils encountered during the investigation consisted of silt, silty sand, and some clay. No groundwater was encountered in any of the boreholes. No staining or hydrocarbon odors were observed in any of the boreholes.

5.2 ANALYTICAL RESULTS

The laboratory test results are discussed below. Laboratory test results are summarized in attached Tables 1 through 3. The complete laboratory analytical test results are presented on the laboratory data sheets attached as Appendix A.

Soil Samples

No total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were reported above laboratory reporting limits in any of the soil samples collected, with the exception of tetrachloroethene (PCE) at location SB-16-5, which was reported at 0.002 milligrams per kilogram (mg/kg) (see Table 1). This concentration is well below regulatory threshold for cleanup requirements.

Laboratory analysis for metals of sample SB-4-5 (located in the auto repair bays of the property at 11048 Garvey) reported barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc above laboratory reporting limits. None of the results, however, were above residential California Human Health Screening Levels (CHHSLs) for these metals and in each case were comparable to typical naturally-occurring California background levels for each metal. Based on the results of this sampling Stantec concludes that metals do not appear to be an issue at the Site.

Stantec concludes that impacts to soil do not represent a recognized environmental condition and recommends no further action or investigation regarding this issue. However, historical operations involved the storage and use of materials containing the detected compounds, and unreported releases may have occurred. In the event that any previously-undiscovered impacts to soil are discovered during site development activities, Stantec recommends investigating and addressing the newly-discovered areas of impact.

Soil Gas Samples

Of the fourteen (14) soil gas sample locations sampled at the Site, tetrachloroethylene (PCE) was reported in all of the samples collected, with a maximum reported concentration of 2.54 micrograms per liter (ug/L). Toluene was reported in all but three (3) of the samples collected (i.e., non-detect in SV-5, SV-8, and SV-21) at a maximum concentration of 0.429 ug/L. Xylenes

PHASE II ENVIRONMENTAL SITE ASSESSMENT

INVESTIGATION RESULTS

April 15, 2014

were reported in samples SV-11, SV-19, and SV-22 above laboratory reporting limits at a maximum concentration of 0.214 ug/L. Benzene was reported in one sample at a concentration of 0.010 ug/L. With the exception of PCE, VOCs were reported either below CHHSLs or, where no CHHSL is in effect, at exceedingly low concentrations that do not represent an environmental concern to the Site. With respect to PCE, concentrations of PCE above CHHSLs were reported at SV-1, SV-3, SV-11, SV-12, SV-16, and SV-19. Except as listed above, no VOCs were reported above laboratory reporting limits.

The detected impacts to soil vapor, particularly by PCE, are not localized and appears to exist across most of the Site. The areas where PCE were detected at levels above CHHSLs are concentrated in three locations that include (1) the eastern portion of the auto repair shop along Consol Avenue at address 11048 Garvey, (2) the drain area of the flooring warehouse at address 2880 Tyler, and (3) the parts washer area of the auto body shop at address 2818 Tyler. To date, Stantec's assessment has detected no discrete source in soil for the elevated contaminant levels in soil vapor.

Because the source cannot be located, Stantec recommends preparing a human health risk assessment (HHRA) for the Site in order to determine whether and where any mitigation measures must be implemented in regard to the detected impacts in soil vapor. The HHRA will determine which buildings will require protection.

In addition, because the actual source of impact to soil has not been identified based on the soil sampling completed, Stantec recommends performing visual inspections during Site grading activities to identified previously-undiscovered impacts to soil, which should be addressed via excavation and off-site disposal.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS

April 15, 2014

6.0 CONCLUSIONS AND RECOMMENDATIONS

The subject property consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California (the "Site"). Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations, including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

Stantec conducted a Phase I environmental site assessment (ESA) and identified the following recognized environmental condition (RECs) associated with Site:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth. Stantec identified these uses and the presence and use of petroleum hydrocarbons and solvents as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including assessment of soil and soil vapor in the vicinity of the former underground lifts, storage shed that contains hazardous materials, and area of the parts washer and paint booth.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building. Stantec identified these hydraulic lifts and the former automobile repair as RECs to the Site.

To address these RECs, Stantec recommended a Phase II ESA including the assessment of soil and soil vapor in the vicinities of the former underground lifts, trench and drain.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS

April 15, 2014

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, a underground storage tank (UST) and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommended soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec has identified these items as RECs to the Site.

Stantec recommended that a Phase II ESA be completed to assess the UST and dispenser areas to determine whether historical use has impacted soil or soil vapor at the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolant were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard. Stantec has identified these items as RECs to the Site.

Stantec recommended conducting a Phase II ESA to assessment the potential impacts to soil and soil vapor in the vicinity of the drain and concrete patch in the car lot and the areas of hazardous material storage, drains, lift and obvious releases in the car repair shop.

Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations was addressed by the assessment of the previous service station in the northwest corner of the Site.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS

April 15, 2014

To address the RECs listed above, Stantec oversaw the advancement of twenty-two (22) borings at the Site. Stantec concludes that the scope of this Phase II subsurface investigation was sufficient to evaluate the RECs listed above.

Soils encountered during the investigation consisted of silt, silty sand, and some clay. No groundwater was encountered in any of the boreholes. No staining or hydrocarbon odors were observed in any of the boreholes.

RESULTS

The results of the completed assessment are presented below:

Soil Samples

No total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were reported above laboratory reporting limits in any of the soil samples collected, with the exception of tetrachloroethene (PCE) at location SB-16-5, which was reported at 0.002 milligrams per kilogram (mg/kg) (see Table 1). This concentration is well below regulatory threshold for cleanup requirements.

Laboratory analysis for metals of sample SB-4-5 (located in the auto repair bays of the property at 11048 Garvey) reported barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc above laboratory reporting limits. None of the results, however, were above residential California Human Health Screening Levels (CHHSLs) for these metals and in each case were comparable to typical naturally-occurring California background levels for each metal. Based on the results of this sampling Stantec concludes that metals do not appear to be an issue at the Site.

Stantec concludes that impacts to soil do not represent a recognized environmental condition and recommends no further action or investigation regarding this issue. However, historical operations involved the storage and use of materials containing the detected compounds, and unreported releases may have occurred. In the event that any previously-undiscovered impacts to soil are discovered during site development activities, Stantec recommends investigating and addressing the newly-discovered areas of impact.

Soil Gas Samples

Of the fourteen (14) soil gas sample locations sampled at the Site, tetrachloroethylene (PCE) was reported in all of the samples collected, with a maximum reported concentration of 2.54 micrograms per liter (ug/L). Toluene was reported in all but three (3) of the samples collected (i.e., non-detect in SV-5, SV-8, and SV-21) at a maximum concentration of 0.429 ug/L. Xylenes were reported in samples SV-11, SV-19, and SV-22 above laboratory reporting limits at a maximum concentration of 0.214 ug/L. Benzene was reported in one sample at a concentration of 0.010 ug/L. With the exception of PCE, VOCs were reported either below CHHSLs or, where no

PHASE II ENVIRONMENTAL SITE ASSESSMENT

CONCLUSIONS AND RECOMMENDATIONS

April 15, 2014

CHHSL is in effect, at exceedingly low concentrations that do not represent an environmental concern to the Site. With respect to PCE, concentrations of PCE above CHHSLs were reported at SV-1, SV-3, SV-11, SV-12, SV-16, and SV-19. Except as listed above, no VOCs were reported above laboratory reporting limits.

The detected impacts to soil vapor, particularly by PCE, are not localized and appears to exist across most of the Site. The areas where PCE were detected at levels above CHHSLs are concentrated in three locations that include (1) the eastern portion of the auto repair shop along Consol Avenue at address 11048 Garvey, (2) the drain area of the flooring warehouse at address 2880 Tyler, and (3) the parts washer area of the auto body shop at address 2818 Tyler. To date, Stantec's assessment has detected no discrete source in soil for the elevated contaminant levels in soil vapor.

Because the source cannot be located, Stantec recommends preparing a human health risk assessment (HHRA) for the Site in order to determine whether and where any mitigation measures must be implemented in regard to the detected impacts in soil vapor. The HHRA will determine which buildings will require protection.

In addition, because the actual source of impact to soil has not been identified based on the soil sampling completed, Stantec recommends performing visual inspections during Site grading activities to identified previously-undiscovered impacts to soil, which should be addressed via excavation and off-site disposal.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

LIMITATIONS
April 15, 2014

7.0 LIMITATIONS

The conclusions presented in this report are professional opinions based on data described in this report. The opinions of this report have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice that is contained within the body of this report.

Inherent in most projects performed in a heterogeneous subsurface environment, continuing excavation and assessments may reveal findings that are different than those presented herein. This facet of the environmental profession should be considered when formulating professional opinions on the limited data collected on these projects.

This report has been issued with the clear understanding that it is the responsibility of the owner, or their representative, to make appropriate notifications to regulatory agencies. It is specifically not the responsibility of Stantec to conduct appropriate notifications as specified by current County and State regulations.

The information presented in this report is valid as of the date our exploration was performed. Site conditions may degrade with time; consequently, the findings presented herein are subject to change.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

REFERENCES

April 15, 2014

8.0 REFERENCES

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOG), 2013, website <http://www.consrv.ca.gov/dog/maps>

California Division of Mines and Geology (CDMG), 1965, Geologic Map of California, Los Angeles Sheet, scale 1:250,000.

California Geological Survey (CGS), 2002, California Geomorphic Provinces, Note 36.

_____, 2010a, Fault Activity Map of California, adjustable scale, <http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html>.

_____, 2010b, Alquist-Priolo Earthquake Fault Zones of California, http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

United States Geological Survey (USGS), 1966, El Monte Quadrangle, 7.5 Minute Topographic Map, Scale 1 inch = 2,000 feet, photo revised 1994.

Stantec Consulting Services Inc., Phase I Environmental Site Assessment Report, 2014

TABLES

Table 1
Summary of Soil Analytical Results - TPH and VOCs
Tyler and Garvey
El Monte, California

Sample ID ⁽¹⁾	Sample Depth	Sampling Date	TPH ⁽²⁾			VOCs ⁽²⁾					
			8015m ⁽³⁾			8260 ⁽³⁾					
			TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl-tert-butyl ether (MtBE)	All Other VOCs
USEPA RSLs (mg/kg)			NE	NE	NE	1.1	5,000	5.4	630	43	varies
LACRWQCB ESLs (mg/kg)			100	100	1,000	0.044	2.3	9	25	NA	varies
<i>Samples</i>											
SB-21-15	15	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND<varies
SB-21-20	20	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-5	5	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-15	15	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND<varies
SB-22-20	20	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

(1) Refer to Figure 2 for sampling locations

(2) Concentrations reported in milligrams per kilogram (mg/kg)

(3) EPA Test Method

< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

NA - Not Analyzed
VOCs - Volatile Organic Compounds
LACRWQCB ESL - LA California Regional Water Quality Control Board Environmental Screening Level, groundwater less than 20 feet below contamination (May 1996).
USEPA RSLs - United States Environmental Protection Agency Regional Screening Levels for Residential Soils- June 2011

Table 2
Summary of Soil Analytical Results - Metals
Tyler and Garvey
El Monte, California

Sample ID	Sampling Depth ⁽¹⁾	Sampling Date	Title 22 Metals ⁽²⁾																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Mercury	Selenium	Silver	Thallium	Vanadium	Zinc
SB-4-5	5	2/21/2014	ND<3.0	ND<5.0	95	ND<1.0	ND<2.0	13	10	21	3.7	ND<5.0	12	ND<0.10	ND<5.0	ND<2.0	ND<2.0	31	43
USEPA RSL for Residential Soils (mg/Kg)			31	0.39	15,000	160	70	120,000 ⁽³⁾	23	3,100	400	390	1,500	10	3900	3900	0.78	390	23,000
Typical background levels in California			0.26-1.95	0.6-11.8	133-1400	0.25-2.7	0.05-1.7	23-1579	2.7-46.9	9.1-96.4	12.4-97.1	0.1-9.6	9-509	0.05-0.90	0.015-0.430	0.10-3.80	0.29-1.10	39-288	88-236

NOTES:

(1) Sample depth is reported as feet below ground surface

(2) Concentrations reported in mg/Kg

(3) As chromium (III), insoluble salts

ND< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

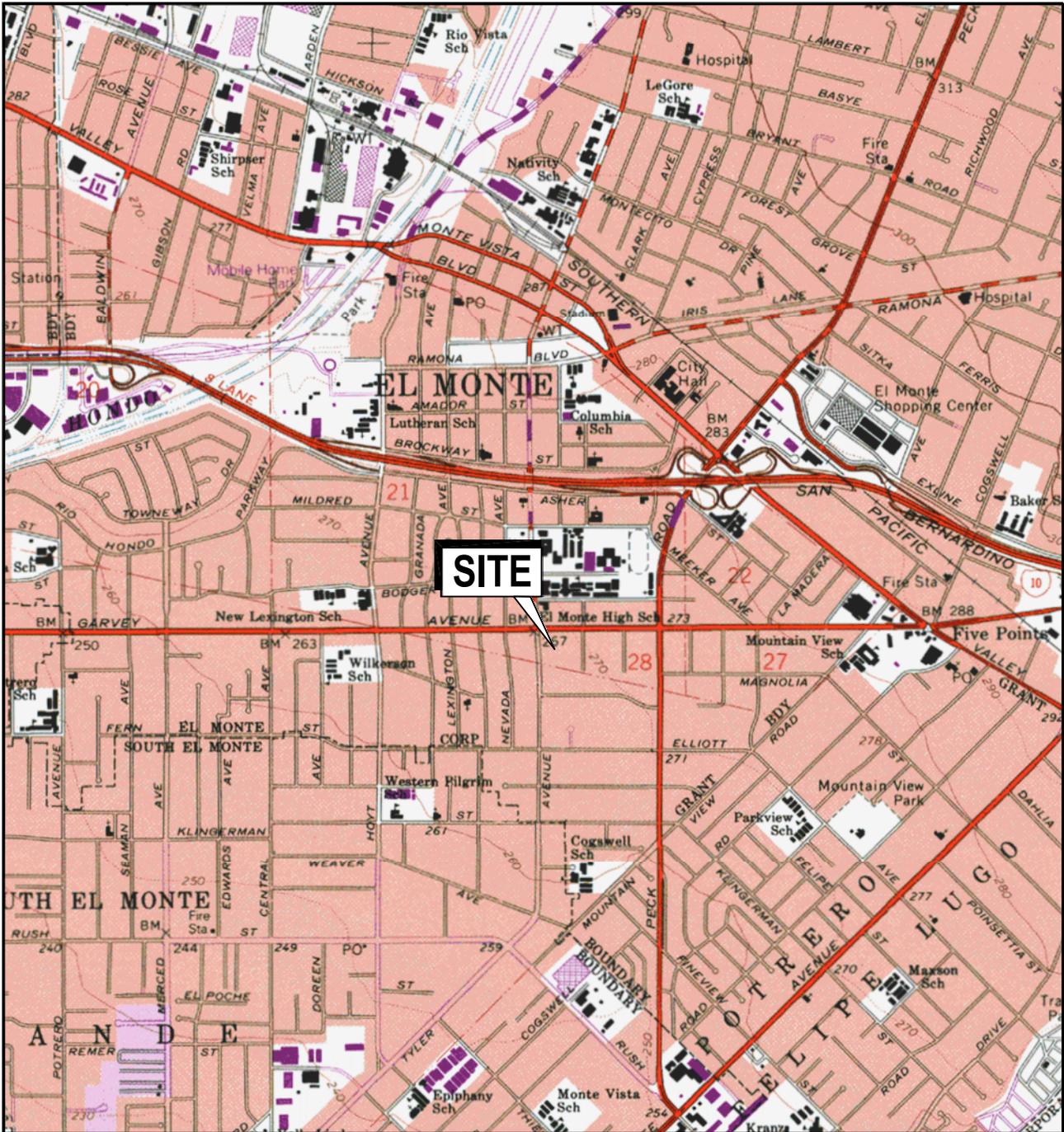
US EPA RSL United States Environmental Protection Agency Regional Screening Levels

Table 3
Soil Vapor Sampling Analytical Data
Tyler and Garvey
El Monte, California

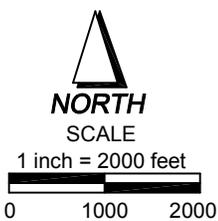
CHHSL -Soil Vapor with Engineered Fill Residential Use (ug/L)			TCE	PCE	Benzene	Toluene	Ethylbenzene	Xylenes	Vinyl chloride	Other VOCs
			1.3	0.470	0.085	320	1.1	1,650	0.028	N/A
<i>Samples</i>										
Sample Name	Depth (ft)	Sample Date	TCE	PCE	Benzene	Toluene	Ethylbenzene	Xylenes	Vinyl chloride	Other VOCs
SV-1	5	2/11/2014	<0.008	0.894	<0.008	0.055	<0.008	<0.008	<0.008	<0.008
SV-3 1P	5	2/11/2014	<0.008	0.839	<0.008	0.144	<0.008	<0.008	<0.008	<0.008
SV-3 3P	5	2/11/2014	<0.008	0.726	<0.008	0.019	<0.008	<0.008	<0.008	<0.008
SV-3 10P	5	2/11/2014	<0.008	0.743	<0.008	0.022	<0.008	<0.008	<0.008	<0.008
SV-4	5	2/11/2014	<0.008	0.693	<0.008	0.021	<0.008	<0.008	<0.008	<0.008
SV-5	5	2/11/2014	<0.008	0.418	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
SV-6	5	2/11/2014	<0.008	0.025	<0.008	0.143	<0.008	<0.008	<0.008	<0.008
SV-7	5	2/11/2014	<0.008	0.354	<0.008	0.052	<0.008	<0.008	<0.008	<0.008
SV-7 REP	5	2/11/2014	<0.008	0.271	<0.008	0.025	<0.008	<0.008	<0.008	<0.008
SV-8	5	2/11/2014	<0.008	0.076	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
SV-11	5	2/11/2014	<0.008	1.24	<0.008	0.023	<0.008	0.045	<0.008	<0.008
SV-12	5	2/11/2014	<0.008	2.54	<0.008	0.235	<0.008	<0.008	<0.008	<0.008
SV-16	5	2/11/2014	<0.008	0.971	<0.008	0.192	<0.008	<0.008	<0.008	<0.008
SV-19	5	2/11/2014	<0.008	0.519	<0.008	0.429	<0.008	0.143	<0.008	<0.008
SV-20	5	2/11/2014	<0.008	0.044	<0.008	0.306	<0.008	<0.008	<0.008	<0.008
SV-21	5	2/11/2014	<0.008	0.220	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
SV-22	5	2/11/2014	<0.008	0.280	<0.008	0.407	<0.008	0.214	<0.008	<0.008

PCE - Tetrachloroethene
TCE - Trichloroethene
VOCs - Volatile organic compounds
Notes: CHHSL - California Human Health Screening Level
CHHSLs for soil vapor updated in 2010

FIGURES



Reference: U.S.G.S., 1966, Baldwin Park Quadrangle California - Los Angeles County, 7.5' Series Topographic. Photorevised 1981.



QUADRANGLE LOCATION



25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA
PH (909) 335-6116 FAX (909) 335-6120

FOR:
CITY VENTURES
TWO PARCELS
SEC CORNER GARVEY AND TYLER AVES.
EL MONTE, CALIFORNIA

JOB NUMBER:
185803086

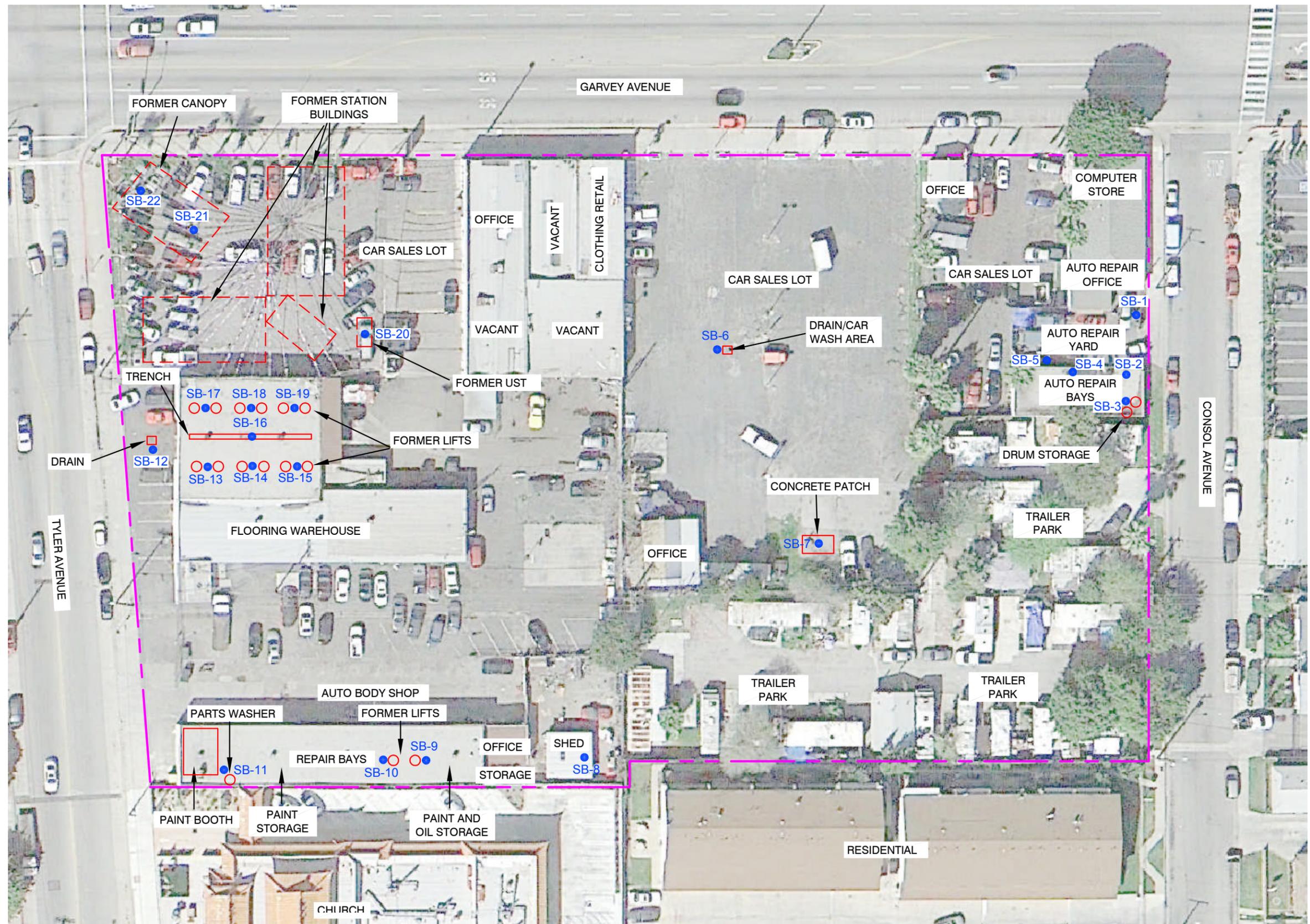
DRAWN BY:
KD

CHECKED BY:
KD

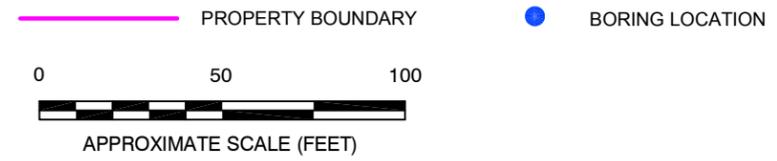
APPROVED BY:
KE

FIGURE:
1
DATE:
10/1/13

SITE LOCATION MAP



LEGEND:



<p>25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA PH (909) 335-6116 FAX (909) 335-6120</p>	FOR: CITY VENTURES MULTIPLE MIXED USE PARCELS SEC CORNER GARVEY AND TYLER AVES. EL MONTE, CALIFORNIA		SITE MAP		FIGURE: 2
	JOB NUMBER: 185803086	DRAWN BY: KD	CHECKED BY: KD	APPROVED BY: KE	DATE: 03/27/2014

APPENDIX A
LABORATORY DATA SHEETS AND QA/QC RESULTS



P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/11/2014
Date Received: 2/11/2014

Project Name: Tyler & Garvey
Project Address: 2818 Tyler Ave.
El Monte, CA

Date Analyzed: 2/11/2014
Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB guidance documents. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval:

Steve Jones, Ph.D.
Laboratory Manager



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-3 1P	SV-3 3P	SV-3 10P	SV-5	SV-4	<u>Practical Quantitation Limit</u>	<u>Units</u>
<u>JEL ID:</u>	C-2172-01	C-2172-02	C-2172-03	C-2172-04	C-2172-05		
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV-3 1P	SV-3 3P	SV-3 10P	SV-5	SV-4		
JEL ID:	C-2172-01	C-2172-02	C-2172-03	C-2172-04	C-2172-05	Practical Quantitation	Units
Analytes:						Limit	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.839	0.726	0.743	0.418	0.693	0.008	µg/L
Toluene	0.144	0.019	0.022	ND	0.021	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	101%	103%	101%	101%	95%	75 - 125	
Toluene-d ₈	100%	100%	100%	102%	100%	75 - 125	
4-Bromofluorobenzene	104%	110%	103%	103%	107%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-1	SV-6	SV-7	SV-7 REP	SV-22		
<u>JEL ID:</u>	C-2172-06	C-2172-07	C-2172-08	C-2172-09	C-2172-10	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-1	SV-6	SV-7	SV-7 REP	SV-22		
<u>JEL ID:</u>	C-2172-06	C-2172-07	C-2172-08	C-2172-09	C-2172-10	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.894	0.025	0.354	0.271	0.280	0.008	µg/L
Toluene	0.055	0.143	0.052	0.025	0.407	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	0.214	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	93%	91%	103%	103%	104%	75 - 125	
Toluene-d ₈	105%	97%	100%	100%	101%	75 - 125	
4-Bromofluorobenzene	109%	104%	109%	101%	109%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-21	SV-12	SV-16	SV-20	SV-19		
<u>JEL ID:</u>	C-2172-11	C-2172-12	C-2172-13	C-2172-14	C-2172-15	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Quantitation</u>	
						<u>Limit</u>	
Benzene	ND	ND	ND	ND	0.010	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV-21	SV-12	SV-16	SV-20	SV-19		
JEL ID:	C-2172-11	C-2172-12	C-2172-13	C-2172-14	C-2172-15	Practical Quantitation	Units
Analytes:						Limit	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.220	2.54	0.971	0.044	0.519	0.008	µg/L
Toluene	ND	0.235	0.192	0.306	0.429	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	0.143	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	103%	105%	100%	97%	100%	75 - 125	
Toluene-d ₈	100%	100%	97%	100%	100%	75 - 125	
4-Bromofluorobenzene	105%	105%	107%	101%	107%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/11/2014

Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-8	SV-11		
<u>JEL ID:</u>	C-2172-16	C-2172-17	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>			<u>Limit</u>	
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-8	SV-11		
<u>JEL ID:</u>	C-2172-16	C-2172-17	<u>Practical Quantitation Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	0.076	1.24	0.008	µg/L
Toluene	ND	0.023	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	0.045	0.008	µg/L
MTBE	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	0.400	µg/L
TIC:				
n-propanol	ND	ND	0.080	µg/L
n-pentane	ND	ND	0.008	µg/L
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	101%	103%	75 - 125	
Toluene-d ₈	99%	97%	75 - 125	
4-Bromofluorobenzene	109%	101%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/11/2014
Date Received: 2/11/2014

Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	<u>SAMPLING METHOD</u>		<u>Practical</u>	<u>Units</u>
	<u>BLANK</u>	<u>BLANK</u>		
<u>JEL ID:</u>	<u>C-2172-18</u>	<u>C-2172-19</u>	<u>Limit</u>	
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SAMPLING BLANK	METHOD BLANK		
<u>JEL ID:</u>	C-2172-18	C-2172-19	<u>Practical Quantitation</u>	<u>Units</u>
Analytes:			<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	0.400	µg/L
<u>TIC:</u>				
n-propanol	ND	ND	0.080	µg/L
n-pentane	ND	ND	0.008	µg/L
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	107%	103%	75 - 125	
Toluene-d ₈	96%	103%	75 - 125	
4-Bromofluorobenzene	105%	103%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/11/2014
Date Received: 2/11/2014

Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample Spiked:</u> JEL ID:	Ambient Air		GC#: C1-021114-C-2172			
	C-2172-21	C-2172-22	C-2172-20			
	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
<u>Parameter</u>						
Vinyl Chloride	87%	88%	1.2%	70-130	101%	70-130
1,1-Dichloroethylene	74%	84%	12%	70-130	74%	70-130
Cis-1,2-Dichloroethene	98%	105%	6.6%	70-130	109%	70-130
1,1,1-Trichloroethane	104%	99%	4.2%	70-130	104%	70-130
Benzene	98%	95%	2.4%	70-130	104%	70-130
Trichloroethylene	99%	100%	0.8%	70-130	106%	70-130
Toluene	95%	97%	1.8%	70-130	105%	70-130
Tetrachloroethene	106%	105%	1.1%	70-130	119%	70-130
Chlorobenzene	107%	104%	3.0%	70-130	118%	70-130
Ethylbenzene	102%	102%	0.0%	70-130	114%	70-130
1,2,4 Trimethylbenzene	94%	92%	2.4%	70-130	107%	70-130
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	102%	101%		75-125	102%	75-125
Toluene-d ₈	101%	97%		75-125	99%	75-125
4-Bromofluorobenzene	107%	107%		75-125	107%	75-125

Method Blank = Not Detected

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

Chain-of-Custody Record

Client

Startec Inc

Date

02.11.14

SOIL GAS

Purge Number: 1P 3P 7P 10P

Purge Rate: 200 cc/min

Shut in Test: Y N

Tracer:

n-propanol

n-pentane

1,1-DFA

Helium

Analysis Requested

Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)

EPA 8260B (VOCs + XyS)

JEL Project #

C-2172

Page 1 of 2

Lab Use Only

Sample Condition as Received:

Chilled yes no

Sealed yes no

Remarks/Special Instructions

gas tight glass syringe

Magnehelic Vacuum (ln/H₂O)

Number of Containers

Sample Matrix:

Laboratory Sample Number

Sample Collection Time

Date

Purge Volume

Purge Number

Sample ID

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Matrix	Analysis Requested	Number of Containers	Remarks/Special Instructions
SN3 1P	1	434	02/11	0818	0821	C-2172-01	SG	X	2	gas tight glass syringe
SN3 3P	3	1301		0834	0838	C-2172-02	SG	X	2	
SN3 10P	10	4338		0850	0857	C-2172-03	SG	X	2	
SN5	1	434		0915	0920	C-2172-04	SG	X	2	
SN4	1	434		0940	0945	C-2172-05	SG	X	2	
SN2	1	434		0950	0958	C-2172-06	SG	X	2	
SN6	1	434		1015	1028	C-2172-07	SG	X	2	
SN7	1	434		1043	1047	C-2172-08	SG	X	2	
SN1 PER	1	434		1043	1102	C-2172-09	SG	X	2	
SN22	1	434		1118	1120	C-2172-10	SG	X	2	

Relinquished by (signature)
Kristen Daly

Date
02/11/14

Received by (signature)
JMD

Date
02/11/14

Total Number of Containers

Relinquished by (signature)
Started

Date

Received by (signature)
Jones Environmental

Date
10/18

Company

Time

Company

Time

The delivery of samples and the signature on this Chain of Custody Form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Chain-of-Custody Record

Client: **Stantec Inc**

Date: **02/11/14**

SOIL GAS

Purge Number: 1P 3P 7P 10P
Purge Rate: **200** cc/min

Analysis Requested

Project Name: **Tyler Brewery**

Client Project #: **185803086**

Shut in Test: Y N

Tracer:

- Turn Around Requested:
- Immediate Attention
 - Rush 24-48 Hours
 - Rush 72-96 Hours
 - Normal

- n-propanol
- n-pentane
- 1,1-DFA
- Helium

Sample Matrix: **EPA 8260B (VOCs+Oxys)**

Magnetic Vacuum (In/H₂O)
Number of Containers

Remarks/Special Instructions

JEL Project # **C-2172**
Page **2** of **2**
Lab Use Only
Sample Condition as Received: Yes No
Chilled Yes No
Sealed Yes No

Project Address: **2818 Tyler Ave**

El Monte, CA

Project Contact: **Kristen Duly**

Mobile Lab

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Analysis Requested	Number of Containers	Remarks/Special Instructions
S121	1	434	02/11	1125	1139	C-2172-11	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	gas tight glass syringe
S112	1	434	02/11	1147	1155	C-2172-12	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	
S116	1	434	02/11	1148	1212	C-2172-13	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	
S120	1	434	02/11	1224	1229	C-2172-14	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	
S119	1	434	02/11	1226	1345	C-2172-15	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	
S118	1	434	02/11	1501	1502	C-2172-16	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	
S111	1	434	02/11	1524	1524	C-2172-17	<input checked="" type="checkbox"/> Soil (S), <input type="checkbox"/> Sludge (SL), <input type="checkbox"/> Aqueous (A), <input type="checkbox"/> Soil Gas (SG)	2	

1 Relinquished by (signature) **Michael Baumbach** Date **02/11/14**

2 Received by (signature) **[Signature]** Date **02/11/14**

3 Relinquished by (signature) **Stantec** Date

4 Received by Laboratory (signature) **Jones Environmental** Date **1548**

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Total Number of Containers



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**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/10-11/2014

Project Name: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
El Monte, CA

Date Received: 2/11/2014

Date Analyzed: 2/11-12/2014

Physical State: Soil

ANALYSES REQUESTED

- 1 EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)
- 2 EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.
Laboratory Manager



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-1-10	SG-2-5	SB-3-5	SB-4-5	SB-5-5		
<u>JEL ID:</u>	ST-7315-02	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	111%	122%	83%	119%	80%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-6-5	SB-7-10	SB-21-15	SB-22-15	SB-12-5		
<u>JEL ID:</u>	ST-7315-11	ST-7315-13	ST-7315-15	ST-7315-19	ST-7315-21	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	117%	81%	79%	120%	79%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_2	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/12/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-16-5	SB-19-10	SB-20-15	SB-13-10	SB-14-10		
<u>JEL ID:</u>	ST-7315-22	ST-7315-24	ST-7315-28	ST-7315-30	ST-7315-33	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	96%	97%	100%	97%	100%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-15-10	SB-17-10	SB-18-10	SB-11-5	SB-8-5		
<u>JEL ID:</u>	ST-7315-36	ST-7315-39	ST-7315-42	ST-7315-44	ST-7315-45	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	101%	96%	92%	89%	88%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_2	ST-021214- CHECKS_1	ST-021214- CHECKS_2		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample ID: SB-9-10 SB-10-10

JEL ID: ST-7315-47 ST-7315-50

Carbon Chain Range

			<u>Practical Quantitation Limit</u>	<u>Units</u>
C6 - C7	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	1.0	mg/kg
C44+	ND	ND	1.0	mg/kg
Total	ND	ND		mg/kg

Dilution Factor 1 1

Surrogate Recovery:

Hexacosane 87% 80%

QC Limits

65 - 125

ST-021214- ST-021214-
 CHECKS_2 CHECKS_2

ND = Not Detected

C6 - C12	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/12/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample Spiked:	CLEAN SOIL		GC#:	ST-021214-CHECKS_1		
JEL ID:	ST-7315-54	ST-7315-55		ST-7315-53		
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Diesel	99%	103%	4.3%	70-130	91%	85-115

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/12/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample Spiked:	CLEAN SOIL		GC#:	ST-021214-CHECKS_2		
JEL ID:	ST-7315-58	ST-7315-59		ST-7315-57		
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Diesel	101%	96%	5.5%	70-130	105%	85-115

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-2-5	SB-3-5	SB-4-5	SB-5-5	SB-6-5		
<u>JEL ID:</u>	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	ST-7315-11	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-2-5	SB-3-5	SB-4-5	SB-5-5	SB-6-5		
<u>JEL ID:</u>	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	ST-7315-11	<u>Practical Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	ND	ND	10.0	mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	114%	109%	114%	113%	115%	60 - 140	
Toluene-d ₈	103%	103%	100%	100%	95%	60 - 140	
4-Bromofluorobenzene	98%	100%	102%	99%	103%	60 - 140	
	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-21-15	SB-22-15	SB-12-5	SB-16-5	SB-19-5		
<u>JEL ID:</u>	ST-7315-15	ST-7315-19	ST-7315-21	ST-7315-22	ST-7315-23	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SB-21-15	SB-22-15	SB-12-5	SB-16-5	SB-19-5		
JEL ID:	ST-7315-15	ST-7315-19	ST-7315-21	ST-7315-22	ST-7315-23	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	2.07	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	ND	ND	10.0	mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	115%	115%	110%	113%	115%	60 - 140	
Toluene-d ₈	101%	99%	103%	106%	97%	60 - 140	
4-Bromofluorobenzene	100%	100%	99%	106%	101%	60 - 140	
D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID: SB-14-15 SB-11-5 SB-8-5

JEL ID: ST-7315-34 ST-7315-44 ST-7315-45

Analytes:				<u>Practical</u>	<u>Units</u>
				<u>Quantitation</u>	
				<u>Limit</u>	
Benzene	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-14-15	SB-11-5	SB-8-5		
<u>JEL ID:</u>	ST-7315-34	ST-7315-44	ST-7315-45		<u>Practical Quantitation Limit</u>
<u>Analytes:</u>					<u>Units</u>
cis-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	10.0	mg/kg
<u>Dilution Factor</u>	1	1	1		
<u>Surrogate Recoveries:</u>					<u>QC Limits</u>
Dibromofluoromethane	111%	115%	113%		60 - 140
Toluene-d ₈	101%	101%	104%		60 - 140
4-Bromofluorobenzene	98%	103%	108%		60 - 140
	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS		

ND= Not Detected



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 (714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Stantec, Inc.	Report date:	2/12/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10 & 2/11
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	METHOD		
	BLANK		
<u>JEL ID:</u>	ST-7315-60	<u>Practical</u>	<u>Units</u>
Analytes:		<u>Quantitation</u>	
		<u>Limit</u>	
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID:

METHOD
BLANK

JEL ID:

ST-7315-60

Analytes:

		<u>Practical</u>	<u>Units</u>
		<u>Quantitation</u>	
		<u>Limit</u>	
cis-1,3-Dichloropropene	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 113	ND	5.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethylene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethylene	ND	1.0	µg/kg
Trichlorofluoromethane	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
Xylenes	ND	1.0	µg/kg
MTBE	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	5.0	µg/kg
Di-isopropylether	ND	5.0	µg/kg
tert-amylmethylether	ND	5.0	µg/kg
tert-Butylalcohol	ND	50.0	µg/kg
Ethanol	ND	50.0	µg/kg
TPH Gasoline Range	ND	10.0	mg/kg

Dilution Factor

1

Surrogate Recoveries:

Dibromofluoromethane	103%
Toluene-d ₈	103%
4-Bromofluorobenzene	98%

QC Limits

60 - 140
60 - 140
60 - 140

D1-021214-
CHECKS

ND= Not Detected



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	_____
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample Spiked:	CLEAN SOIL		GC#: D1-021214-CHECKS			
JEL ID:	ST-7315-62	ST-7315-63	ST-7315-61			
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
Vinyl Chloride	83%	96%	15%	70-130	113%	70-130
1,1-Dichloroethylene	81%	78%	3.4%	70-130	90%	70-130
Cis-1,2-Dichloroethene	142%	133%	6.5%	70-130	155%	70-130
1,1,1-Trichloroethane	146%	128%	13%	70-130	132%	70-130
Benzene	109%	103%	6.3%	70-130	113%	70-130
Trichloroethylene	109%	103%	5.6%	70-130	117%	70-130
Toluene	113%	110%	2.4%	70-130	120%	70-130
Tetrachloroethene	110%	107%	3.2%	70-130	122%	70-130
Chlorobenzene	115%	112%	3.0%	70-130	121%	70-130
Ethylbenzene	112%	108%	3.9%	70-130	120%	70-130
1,2,4 Trimethylbenzene	103%	100%	3.6%	70-130	115%	70-130
TPH Gasoline Range	116%	109%	5.8%	70-130		
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	103%	102%		75-125	101%	75-125
Toluene-d ₈	100%	101%		75-125	100%	75-125
4-Bromofluorobenzene	111%	111%		75-125	109%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



Stantec

CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 9315

Client Name/Address:		Project/PO Number:											
Stantec 25864 Business Center Drive Suite F Redlands, CA 92374		City Ventures - El Monte 1858 03086											
Project Manager: Kristen Daly		Phone Number: (909)335-6116											
Email Address: Kristen.Daly@stantec.com		Fax Number: (909)335-6120											
Sampler: M. Baerstein													
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	VOCs by EPA Method 8260B	TPH (to 1000 mg/L) BTEX & Organates by 8015M PCBs 8081	Title 22 Metals 6010/Mercury 7471	Analysis Required	Special Instructions		
SB-21-10	Soil	acetate liner	1	02/10/14	1455	ICE	X	X	X	X	HOLD		
SB-21-15					1520		X	X	X	X			
SB-21-20					1510		X	X	X	X			
SB-22-5					1355								
SB-22-10					1400								
SB-22-15					1405		X	X	X	X			
SB-22-20					1420		X	X	X	X			
SB-12-5				02/11/14	0805		X	X	X	X			
SB-16-5					0830		X	X	X	X			
SB-19-5					0845		X	X	X	X			
SB-19-10					0850								
SB-19-15					0855								
SB-20-5					0921								
SB-20-10	Soil	acetate liner	1	02/11/14	0930	ICE							
Relinquished By: <i>M. Baerstein</i>		Date/Time: 02/11/14		Received By: <i>SA</i>		Date/Time: 2/11/14		Date/Time: 1600		Turnaround same day		Time: (Check) 5 days	
Relinquished By: <i>M. Baerstein</i>		Date/Time: 02/11/14		Received By: <i>SA</i>		Date/Time: 2/11/14		Date/Time: 1600		Turnaround 24 hours		Time: (Check) normal	
Relinquished By: _____		Date/Time: _____		Received in Lab By: _____		Date/Time: _____		Date/Time: _____		Sample Integrity: (Check) Intact		on ice _____	

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Stantec

CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 7315

Client Name/Address: Stantec 25864 Business Center Drive Suite F Redlands, CA 92374			Project/PO Number: City Ventures - El Monte, CA 185803086			Phone Number: : (909)335-6116			Analysis Required																													
Project Manager: Kristen Daly			Fax Number: (909)335-6120			VOCs by EPA Method 8260B			TPH (carbon content) and oxygenates by 8015M			PCBs 8081			Title 22 Metals 6010/Mercury 7471			HOLD																				
Email Address: Kristen.Daly@stantec.com			Sampler: M. Baernstein			Sample Description			Sample Matrix			Container Type			# of Cont.			Sampling Date			Sampling Time			Preservatives														
SB-20-15			soil			acetate liner			1			02/1/14			0935			ICE																				
SB-13-5															1226																							
SB-13-10																		1230																				
SB-13-15																		1234																				
SB-14-5																		1155																				
SB-14-10																		1200																				
SB-14-15																		1205																				
SB-15-5																		1115																				
SB-15-10																		1120																				
SB-15-15																		1125																				
SB-17-5																		1045																				
SB-17-10																		1050																				
SB-17-15																		1057																				
SB-18-5			soil			acetate liner			1			02/1/14			1015			ICE																				
Relinquished By: <u>M. Baernstein</u>			Date/Time: 02/1/14			Received By: <u>[Signature]</u>			Date/Time: 2/1/14			Received in Lab By: <u>[Signature]</u>			Date/Time: 1/6/00			Turnaround same day			Time: (Check) 5 days			Sample Integrity: (Check) normal			Intact on ice											

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 7375

Client Name/Address: Stantec 25864 Business Center Drive Suite F Redlands, CA 92374			Project/PO Number: City Ventures - El Monte 185803086			Analysis Required			
Project Manager: Kristen Daly			Phone Number: (909)335-6116			VOCs by EPA Method 8260B			
Email Address: Kristen.Daly@stantec.com			Fax Number: (909)335-6120			TPH (carbon chain) + BTEX & oxygenates by 8015M			
Sampler: M. Bernstein						PCBs 8081			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Title 22 Metals 6010/Mercury 7471	HOLD	Special Instructions
SB-18-10	Soil	acetate liner	1	02/11/14	1020	FCE		X	
SB-18-15					1025			X	
SB-11-5					1340			X	
SB-8-5					1400			X	
SB-9-5					1425			X	
SB-9-10					1430			X	
SB-9-15					1433			X	
SB-10-5					1457			X	
SB-10-10					1503			X	
SB-10-15	Soil	acetate liner	1	02/11/14	1507	FCE		X	
Relinquished By: <u>M. Bernstein</u> Date/Time: <u>02/11/14 1600</u> Received By: <u>[Signature]</u> Date/Time: <u>2/11/14 1600</u> Turnaround same day Time: (Check) <u>5 days</u> Relinquished By: _____ Date/Time: _____ Received in Lab By: _____ Date/Time: _____ Sample Integrity: (Check) <u>normal</u> Relinquished By: _____ Date/Time: _____ Received in Lab By: _____ Date/Time: _____ Sample Integrity: (Check) <u>on ice</u>									

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

21 February 2014

Karen Prame
Jones Environmental
320 E Las Palmas Dr. / P.O. Box 5387
Fullerton, CA 92838
RE: City Ventures-El Monte

Enclosed are the results of analyses for samples received by the laboratory on 02/14/14 11:07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Katherine RunningCrane
Project Manager

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-4-5	T140290-01	Soil	02/10/14 10:50	02/14/14 11:07

DETECTIONS SUMMARY

Sample ID: SB-4-5

Laboratory ID: T140290-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	95	1.0		mg/kg	EPA 6010B	
Chromium	13	2.0		mg/kg	EPA 6010B	
Cobalt	10	2.0		mg/kg	EPA 6010B	
Copper	21	1.0		mg/kg	EPA 6010B	
Lead	3.7	3.0		mg/kg	EPA 6010B	
Nickel	12	2.0		mg/kg	EPA 6010B	
Vanadium	31	5.0		mg/kg	EPA 6010B	
Zinc	43	1.0		mg/kg	EPA 6010B	

Katherine RunningCrane



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
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SB-4-5
T140290-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Antimony	ND	3.0	mg/kg	1	4021417	02/14/14	02/17/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	95	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	13	2.0	"	"	"	"	"	"	
Cobalt	10	2.0	"	"	"	"	"	"	
Copper	21	1.0	"	"	"	"	"	"	
Lead	3.7	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	12	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	31	5.0	"	"	"	"	"	"	
Zinc	43	1.0	"	"	"	"	"	"	

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.10	mg/kg	1	4021403	02/14/14	02/17/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental
 320 E Las Palmas Dr. / P.O. Box 5387
 Fullerton CA, 92838

Project: City Ventures-El Monte
 Project Number: ST-7315
 Project Manager: Karen Prame

Reported:
 02/21/14 02:13

Metals by EPA 6010B - Quality Control
SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4021417 - EPA 3051

Blank (4021417-BLK1)

Prepared: 02/14/14 Analyzed: 02/17/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

LCS (4021417-BS1)

Prepared: 02/14/14 Analyzed: 02/17/14

Arsenic	103	5.0	mg/kg	100		103	75-125			
Barium	95.1	1.0	"	100		95.1	75-125			
Cadmium	95.5	2.0	"	100		95.5	75-125			
Chromium	94.8	2.0	"	100		94.8	75-125			
Lead	97.2	3.0	"	100		97.2	75-125			

Matrix Spike (4021417-MS1)

Source: T140281-01

Prepared: 02/14/14 Analyzed: 02/17/14

Arsenic	111	5.0	mg/kg	100	ND	111	75-125			
Barium	216	1.0	"	100	132	83.8	75-125			
Cadmium	109	2.0	"	100	0.156	109	75-125			
Chromium	225	2.0	"	100	89.8	135	75-125			QM-05
Lead	115	3.0	"	100	6.93	108	75-125			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
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Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4021417 - EPA 3051

Matrix Spike Dup (4021417-MSD1)	Source: T140281-01			Prepared: 02/14/14	Analyzed: 02/17/14					
Arsenic	92.1	5.0	mg/kg	100	ND	92.1	75-125	19.0	20	
Barium	233	1.0	"	100	132	100	75-125	7.37	20	
Cadmium	92.3	2.0	"	100	0.156	92.1	75-125	16.6	20	
Chromium	178	2.0	"	100	89.8	88.1	75-125	23.2	20	QM-07
Lead	98.1	3.0	"	100	6.93	91.1	75-125	16.0	20	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
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Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4021403 - EPA 7471A Soil

Blank (4021403-BLK1)		Prepared: 02/14/14 Analyzed: 02/17/14								
Mercury	ND	0.10	mg/kg							
LCS (4021403-BS1)		Prepared: 02/14/14 Analyzed: 02/17/14								
Mercury	0.375	0.10	mg/kg	0.417		90.0	80-120			
Matrix Spike (4021403-MS1)		Source: T140276-01		Prepared: 02/14/14 Analyzed: 02/17/14						
Mercury	0.354	0.10	mg/kg	0.403	ND	87.8	75-125			
Matrix Spike Dup (4021403-MSD1)		Source: T140276-01		Prepared: 02/14/14 Analyzed: 02/17/14						
Mercury	0.363	0.10	mg/kg	0.410	ND	88.5	75-125	2.42	20	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

Jones Environmental

320 E Las Palmas Dr. / P.O. Box 5387

Fullerton CA, 92838

Project: City Ventures-El Monte

Project Number: ST-7315

Project Manager: Karen Prame

Reported:

02/21/14 02:13

Notes and Definitions

- QM-07 The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Katherine RunningCrane



Stantec

CHAIN OF CUSTODY FORM

T140290

ST-7315

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

Page 1 of 4

Client Name/Address:		Project/PO Number:		Analysis Required							
Stantec 25864 Business Center Drive Suite F Redlands, CA 92374		City Ventures- E1 Monte 185803086		Special Instructions							
Project Manager: Kristen Daly		Phone Number: (909)335-6116		VOCs by EPA Method 8260B							
Email Address: Kristen.Daly@stantec.com		Fax Number: (909)335-6120		TPH (carbon chain) & PCBs 8015M PCBs 8081							
Sampler: M. Brauerstein				Title 22 Metals 6010/Mercury 7471 * Sunstar P/u 2/14 Normal TAT							
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required	Turnaround	Time		
SB-1-5	Soil	acetate liner	1	02/10/14	1005	ICE	X	ST-7315-01	no VOCs or TPH		
SB-1-10					1010		X	-02	Run for PCBs		
SB-2-5					1213		X	-03	by 8081B if TPH detected		
SB-2-10					1218		X	-04	in SB-1, SB-13		
SB-3-5					1145		X	-05	SB-14, SB-15,		
SB-3-10					1150		X	-06	SB-17, SB-18		
SB-4-5					1050		X	-07	or SB-19		
SB-4-10					1055		X	-08			
SB-5-5					1117		X	-09			
SB-5-10					1123		X	-10			
SB-6-5					1323		X	-11			
SB-7-5					1625		X	-12			
SB-7-10					1610		X	-13			
SB-7-15	Soil	acetate liner	1	02/10/14	1500	ICE	X				
Relinquished By: <i>M. Brauerstein</i>		Date/Time: 02/10/14 1600		Received By: <i>[Signature]</i>		Date/Time: 2/11/14 1600		Turnaround: same day		Time: 5 days	
Relinquished By: <i>Kristen Daly</i>		Date/Time: 2/14/14		Received In Lab By: <i>[Signature]</i>		Date/Time: 2/14/14 1107		Sample Integrity: (Check) Intact <input checked="" type="checkbox"/>		on ice <input checked="" type="checkbox"/> 5.0	

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

SAMPLE RECEIVING REVIEW SHEET

BATCH # TI40290

Client Name: Jones Environmental

Project: Stantec - City Ventures - El Monte

Received by: Jan M.

Date/Time Received: 2/14/14 1107

Delivered by : Client SunStar Courier GSO FedEx Other _____

Total number of coolers received 1 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.2 °C +/- the CF (- 0.2°C) = 5.0 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling. Yes No* N/A

Custody Seals Intact on Cooler/Sample Yes No* N/A

Sample Containers Intact Yes No*

Sample labels match COC ID's Yes No*

Total number of containers received match COC Yes No*

Proper containers received for analyses requested on COC Yes No*

Proper preservative indicated on COC/containers for analyses requested Yes No* N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. Yes No*

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date DM 2/14/14

Comments:

Human Health Risk Assessment

Multiple Commercial Parcels
SEC Tyler and Garvey Avenues
El Monte, California 91733
Stantec Project No: 185803086



Prepared for:
City Ventures
1900 Quail Street
Newport Beach, California
92660

Prepared by:
Stantec Consulting Services Inc.
25864-F Business Center Drive
Redlands, California

September 17, 2014



**Human Health Risk Assessment
Multiple Commercial Parcels
SEC Tyler and Garvey Avenues
El Monte, California**

Limitations and Certifications
September 17, 2014

Limitations and Certifications

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of City Ventures for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

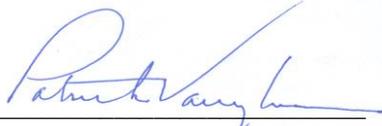
Information, conclusions, and recommendations provided by Stantec in this document have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Prepared by:



Tony Giglini, MESH
Associate Toxicologist, Risk Assessment
& Toxicology

Reviewed by:



Patrick H. Vaughan, MS, CEM
Stantec Vapor Intrusion SME
Principal, Facility Assessment

Executive Summary

Stantec Consulting Services Inc. (Stantec) was retained by City Ventures to conduct a Human Health Risk Assessment (HHRA) for the property located at 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, within the City of El Monte, California (hereafter referred to as the "Site," **Figure 1**). The objective of this HHRA is to estimate potential health risks to future on-site residents resulting from indoor vapor intrusion.

This HHRA was conducted using risk assessment methods accepted by the California Environmental Protection Agency (Cal-EPA), Office of Environmental Health and Hazard Assessment (OEHHA), Department of Toxic Substances and Control (DTSC), and U.S. Environmental Protection Agency (USEPA).

Background

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and automobile repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California. Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations including car sales, auto body repair, flooring and computer sales, automobile repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

A Phase I and II Environmental Site Assessment were completed by Stantec in 2014.

Recognized Environmental Conditions

Based on the Phase I ESA and further investigation, the following areas were identified as recognized environmental conditions (RECs) or compliance points that warranted assessment (refer to **Figure 2**):

- Automobile Repair Yard and Bays-Eastern Property Boundary and Compliance Points (SV/SB-1, SV/SB-4, and SV/SB-5)
- Drum Storage in Auto Repair Bays-Eastern Property Boundary (SV/SB-3)
- Drain and Car Wash Area-Car Sales Lot (SV/SB-6)
- Concrete Patch-South Car Sales Lot (SV/SB-7)
- Shed-Southern Property Boundary Compliance Point (SV/SB-8)

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- Parts Washer-Southwest Compliance Point Near Paint Booth and Paint Storage in Repair Bays (SV/SB-11)
- Drain-Western Property Compliance Point Near Tyler Avenue (SV/SB-12)
- Former Lifts Near Trench in Flooring Warehouse (SV/SB-16 and SV/SB-19)
- Former UST in Northwestern Car Sales Lot (SV/SB-20)
- Former Canopy and Northwestern Corner Compliance Points (SV/SB-21 and SV/SB-22)

Based on the recommendations of the Phase I ESA, each of the identified RECs were assessed by a Phase II ESA. That Phase II ESA included the advancement of soil and soil vapor borings at each REC. The results of that assessment identified the presence of tetrachloroethylene (PCE) at a number of soil vapor points above soil gas screening levels that were derived based on the more conservative of US EPA RSLs for indoor air or a DTSC-modified residential indoor air screening level divided by a default DTSC attenuation factor of 0.001 (Cal-EPA 2011b and Cal-EPA 2012). The assessment did not identify a specific source for the PCE at various locations across the site. Due to the inability to remedy the PCE in soil vapor, Stantec recommended preparing a HHRA to evaluate if the detected levels of PCE were at concentrations that required protection or remedial action in light of the contemplated residential use of the Site. The following report provides the results of the HHRA. Based on the Phase I ESA, the Phase II ESA, and this HHRA, Stantec has determined that the only recognized environmental condition associated with the Site is the PCE impact at the location of SV-12, as discussed in detail below.

Human Health Risk Conclusion

The Johnson and Ettinger (J&E) model (SG-ADV version 3.1) was used to estimate the concentrations of chemicals of potential concern (COPCs) that could potentially migrate from soil gas to the air inside a hypothetical residence constructed over the location of the soil boring and soil gas sample. Each soil gas sample location was evaluated as an exposure point using the detected levels of COPCs as exposure point concentrations (EPCs). Cancer risk and non-cancer hazard were calculated from the indoor air concentrations predicted by the J&E model using the currently accepted methodology (USEPA 2009).

The results of this HHRA are interpreted within the context of the regulatory and public health perspective of acceptable cancer risks and non-cancer hazards from



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controllable sources of exposure; however, recommendations are based on the most conservative risk estimate of 1E-06 using standard model default values. In addition to the use of J&E standard default water-filled soil porosity, Stantec also modeled annual average Site-specific water filled soil porosity using area-specific annual precipitation rates.

The cancer risk expressed as Incremental Lifetime Excess Cancer Risk (ILECR) and non-cancer hazard expressed as Hazard Index (HI) for a resident at each soil vapor sample location are shown on the following table, and the conclusions of the HHRA are summarized as follows.

Soil Gas Sample	Depth (ft.)	Site-Specific θ_w		Default θ_w	
		ILECR	HI	ILECR	HI
SV-1	5	8E-07	9E-03	2E-06	2E-02
SV-3	5	7E-07	8E-03	2E-06	2E-02
SV-4	5	6E-07	7E-03	2E-06	2E-02
SV-5	5	4E-07	4E-03	1E-06	1E-02
SV-6	5	2E-08	4E-04	6E-08	1E-03
SV-7	5	3E-07	3E-03	8E-07	9E-03
SV-8	5	6E-08	7E-04	2E-07	2E-03
SV-11	5	1E-06	1E-02	3E-06	3E-02
SV-12	5	2E-06	2E-02	6E-06	7E-02
SV-16	5	8E-07	1E-02	2E-06	3E-02
SV-19	5	5E-07	6E-03	1E-06	2E-02
SV-20	5	4E-08	8E-04	1E-07	2E-03
SV-21	5	2E-07	2E-03	5E-07	6E-03
SV-22	5	2E-07	4E-03	7E-07	1E-02

θ_w = Water-filled porosity

According to DTSC, if the initial evaluation of vapor intrusion indicates a risk between 1E-06 and 1E-04 or if the HI is greater than 1, risk management decisions typically include the following (Cal-EPA 2011b):

- Additional data collection
- Continued monitoring
- Additional Risk Characterization
- Mitigation, and
- Source Remediation

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- The major contributor to risk and hazard at all locations is PCE.
- Calculated risks were at or well below the $1E-06$ point of departure for 13 of 14 sample locations collected throughout the Site using Site-specific water-filled porosity values for "silt". Additionally, using the most conservative model default water-filled porosity values, the cancer risk only slightly exceeds the point of departure in six sample locations where the calculated risk was estimated between $2E-06$ and $6E-06$, all driven by PCE. The site-specific data is more representative of actual site conditions than the default values, and the site-specific data is the information to be relied on with respect to evaluating potential mitigation measures (e.g., soil vapor barriers).
- The highest risks were identified at sample locations SV-1, SV-3, SV-4, SV-11, SV-12, and SV-16, which all slightly exceeded a target point of departure of $1E-06$ using model default water-filled porosity values. Although the associated risk was just above the $1E-06$ point of departure using the model defaults, only one location, SV-12, closest to Tyler Avenue near a drain, slightly exceeded the point of departure ($2E-06$) when using Site-specific soil volumetric water content.
- The potential human health risks are considered to be acceptable based on:
 - The estimated cancer risks from migration of vapors from the subsurface to indoor air across the site are lower than $1E-06$ in 13 of 14 sample locations using Site-specific water-filled porosity values in the ILECR calculation. In the one location, SV-12, near a drain and Tyler Avenue, the ILECR slightly exceeds $1E-06$ ($2E-06$) but is less than $1E-05$, which is the level where additional actions may be warranted (Cal EPA 2011b).
 - Because the standard of acceptable risk of $1E-06$ was slightly exceeded in the vicinity of SV-12, a conservative approach for future residential development in this particular area would be to install vapor barriers to control potential unacceptable vapor intrusion concerns to approximately 50 feet further inside the property boundary from Tyler Avenue to the area of SV-16 where acceptable risk is presented. Further soil vapor sampling could potentially reduce the proposed extent of vapor barrier locations.
- Potential non-cancer hazards were below the target HI of 1.0 in all samples.

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- Based on the set of data collected by Stantec in February 2014 and using conservative J&E Model default parameters with Site-specific water-filled porosity values, the levels of PCE detected in soil gas do not represent an unacceptable vapor intrusion risk to future residents, with the possible exception of the area of SV-12. In order to define the extent of impact at SV-12 (and the extent to which vapor barriers may potentially be warranted), Stantec recommends performing further soil vapor sampling in the area of SV-12.

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1.0 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) was retained by City Ventures to conduct a Human Health Risk Assessment (HHRA) for the property identified as multiple commercial parcels located at 2818 and 2880 Tyler Avenue, 1102 and 11048-11068 Garvey Avenue within the City of El Monte, County of Los Angeles (hereafter referred to as the Site, Figure 1 and Figure 2). The objective of this HHRA is to estimate potential health risks to future onsite residents resulting from indoor vapor intrusion. Risk was evaluated on a point-by-point basis using fourteen samples collected from 5 feet below ground surface (bgs) in February 2014 (SV/SB-1, SV/SB-3 through SV/SB-8, SV/SB-11, SV/SB-12, SV/SB-16, and SV/SB-19 through SV/SB-22). These locations are presented below and described in Section 1.2 as recognized environmental conditions (RECs):

- SV/SB-1, SV/SB-4, and SV-SB-5: Auto Repair Yard and Bays-Eastern Property Boundary and Compliance Points
- SV/SB-3: Drum Storage in Auto Repair Bays-Eastern Property Boundary
- SV/SB-6: Drain and Car Wash Area-Car Sales Lot
- SV/SB-7: Concrete Patch-South Car Sales Lot
- SV/SB-8: Shed-Southern Property Boundary Compliance Point
- SV/SB-11: Parts Washer-Southwest Compliance Point Near Pain Booth and Pain Storage in Repair Bays
- SV/SB-12: Drain-Western Property Compliance Point Near Tyler Avenue
- SV/SB-16 and SV/SB-19: Former Lifts Near Trench in Flooring Warehouse
- SV/SB-20: Former UST in Northwestern Car Sales Lot
- SV/SB-21 and SV/SB-22: Former Canopy and Northwestern Corner Compliance Points

This HHRA was conducted using risk assessment methods accepted by the Cal-EPA; 1996 and 2011a, Office of Environmental Health and Hazard Assessment (OEHHA), DTSC, and United States Environmental Protection Agency (USEPA; 1989, 2004, and 2009).

1.1 SITE BACKGROUND

The Site consists of 3.5 acres of land occupied by retail shops, a trailer park and auto repair and sales facilities located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California. Site addresses were identified as 2818 and 2880 Tyler Avenue and 11022-11068 Garvey Avenue, El Monte, California. The Site is currently used for several active business operations including car

sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

1.2 BACKGROUND INFORMATION

Stantec identified the following RECs associated with Site:

2818 Tyler Avenue – auto body shop: This address consists of one oblong structure and a shed. The structure has a small office and reception area at the eastern end of the structure and mostly consists of service bays. A paint booth is located at the western end of the structure. Auto body work including structural repair and painting takes place in the service bays, which contain two aboveground lifts. Floor anchors for securing vehicles were scattered throughout the service bays. At least two potential former underground lifts were observed in the service bays.

A shed at the eastern end of the building contained tires, auto parts, and various other materials including small volumes of oil and gasoline. Small quantities of paint, lubricants and oils were stored throughout the work area and in storage rooms near the office and paint booth. A parts washer using solvent was also located near the paint booth. Stantec had previously identified these uses and the presence and use of petroleum hydrocarbons and solvents as RECs to the Site.

2880 Tyler Avenue – flooring warehouse: One warehouse structure is located at this address. It is currently used for storage and as a showroom for flooring materials such as tile and wood. At least twelve former underground lifts were visible in the floor of the northern portion of the warehouse; it is unknown whether any are present in the southern portion as much of that floor surface has been refinished with tile. A trench is located in the center of the two rows of former lifts that leads to a drain in the driveway west of the building. Stantec had identified these hydraulic lifts and the former automobile repair as RECs to the Site.

11022 Garvey Avenue – car sales lot: The lot on the southeast corner of Garvey and Tyler Avenues is used as a car lot with a parking and display area for the vehicles and a small office in a building that fronts Garvey Avenue. No repair activities take place.

According to the EDR Radius Map Report, an underground storage tank (UST) and release of gasoline to soil were reported for the Site at address 11022 Garvey Avenue. The case was closed in 1990. However, due to the limited analytical data and methods available in 1990, Stantec recommended soil and soil vapor sampling in the area of the former UST to determine whether any residual impact is present. Additionally, historical

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aerial photographs of the Site indicate the presence of a gasoline service station at the Site until at least 1968. Stantec had identified these items as RECs to the Site.

11048-11068 Garvey Avenue – car sales lots, computer retail, and car repair: This address range consists of two car sales lots, a computer/electronics store and a car repair shop. The first car lot occupies the northwestern portion of the parcel. A small office is located at the south end of the lot. Some staining was present on the asphalt beneath the vehicles. A drain was located in the center of the lot where car washing takes place. A concrete patch was visible at the south end of the lot near a dirt area. No repair activities are completed on the lot.

A car repair shop occupies the southern portion of the building located at the southwest corner of Garvey and Consol Avenues. Repair bays are located in a small structure south of the building. One aboveground lift was observed in the repair yard. Various vehicles were present in the repair bays and yard. A large volume of parts and materials were scattered throughout the building and repair bays as well as the yard. Drums labeled as containing oil and coolants were located in the southeast corner of the repair bays; additional containers of hazardous materials were scattered across the property. Releases of oil were present on the floor of the repair bays. Staining was present on the asphalt and concrete in the repair area. Two drains were located at the entrance to the service bays. One lift is located in the yard. Stantec had identified these items as RECs to the Site.

Adjacent Properties - A Chevron station is listed in city directories at 10968 Garvey Avenue and a Texaco at 10967 Garvey Avenue in 1966 and 1975. These service stations are visible on the historical aerial photographs as well on the properties adjacent to the west across Tyler Avenue and to the northwest across the intersection of Tyler and Garvey Avenues. The potential for contamination from these historic service stations was addressed by the assessment of the previous service station in the northwest corner of the Site.

Table 1 shows that the soil analytical results are below the current USEPA Regional Screening Levels (RSLs; USEPA, 2014b) and the Los Angeles Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) (RWQCB, 1996) for residential human health direct exposure to soil. Because the concentrations of all constituents in soil were less than both USEPA and RWQCB conservative screening levels, direct contact with constituents in soil does not represent a human health risk and was not considered in this HHRA.

Table 2 shows that the soil analytical metal results are below the current USEPA Regional Screening Levels (RSLs; USEPA 2014b) for residential human health direct exposure to soil and fall within the typical background concentrations of trace and major elements in California soil (Kearny, 1996). Because the concentrations of all metal constituents in soil were less than USEPA conservative screening levels and within typical background concentrations of native California soils, direct contact with metal constituents in soil does not represent a human health risk and was not considered in this HHRA.

1.3 REPORT ORGANIZATION

The remainder of this HHRA report is divided into seven sections organized as follows:

- ❑ Identification of COPCs (Section 2.0) – Includes selection of COPC and uncertainties associated with COPC identification;
- ❑ Exposure Assessment (Section 3.0) – Discusses site physical settings, land use specific exposure scenarios, potential receptors, complete pathways, fate and transport modeling, quantification of exposure, and uncertainties associated with exposure assessment;
- ❑ Toxicity Assessment (Section 4.0) – Presents toxicity values for COPC and relevant information on toxicity, including uncertainties associated with toxicity assessment;
- ❑ Risk Characterization (Section 5.0) – Provides algorithms for calculating carcinogenic risks and non-carcinogenic hazards to human health, using exposure intake and dose-response data, and includes a discussion of the uncertainty associated with the risk estimates;
- ❑ Summary and Conclusions (Section 6.0) – Presents the main points of the HHRA; and,
- ❑ References (Section 7.0).

As recommended by the National Research Council (NRC) and USEPA (NRC, 1993; USEPA, 1992a and 1992b), qualitative information on assessment methodologies, alternative interpretations, and working assumptions are also included in the HHRA, together with numerical health risk results.

2.0 IDENTIFICATION OF CHEMICALS OF POTENTIAL CONCERN

COPCs are defined as chemicals that are potentially Site-related and for which data are of sufficient quality for use in a quantitative risk assessment (USEPA 1989). The identification of COPCs is a process that involves reviewing the procedures used for collecting, organizing, and evaluating environmental data in order to identify the relevant data sets, and to focus the subsequent effort of the risk assessment process on Site-related contaminants that potentially pose significant risks to human health.

2.1 RELEVANT DATASETS

All soil gas data collected from the Stantec February 2014 soil vapor sampling was included in this HHRA (**Table 3**). Locations of these samples are shown in **Figure 2**.

Based on the results of the initial purge volume test conducted at SV-3 concentrations of COPCs in soil gas were highest when one purge volume was used (See the laboratory data reports in **Appendix A**). Accordingly, the soil gas dataset consists of samples collected following removal of one purge volumes of stagnant air.

All quality assurance/quality control (QA/QC) parameters presented in the laboratory reports for the 2014 soil and soil vapor samples are within the acceptable limits (matrix spikes, laboratory control spikes, surrogate spikes, method blanks, hold times, etc) indicating that data are useable for risk assessment purposes with the exception of chromium in the soil matrix spike and soil matrix spike duplicate where the spike recovery was outside of acceptance limits, likely due to matrix interference. The laboratory control spike for chromium was within acceptance criteria indicating the data is valid.

2.2 SELECTION OF CHEMICALS OF POTENTIAL CONCERN

All chemicals detected in one or more of the fourteen to five-foot soil gas samples were evaluated as COPCs. Since soil vapor borings were drilled at different locations across the Site, point-by-point health risks for each soil vapor boring location were modeled. Since total petroleum hydrocarbons (TPH) levels in soil are below RWQCB ESLs and the methods for evaluating risk from TPH have been withdrawn by DTSC, TPH results were excluded from the risk evaluation. However, they are included in **Appendix A** for reference. Results are presented in Section 5.3 below; summary of findings.

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IDENTIFICATION OF CHEMICALS OF POTENTIAL CONCERN
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2.2.1 UNCERTAINTIES ASSOCIATED WITH COPC IDENTIFICATION

The evaluation of COPC was based upon the February 2014 soil vapor analytical results collected by Stantec at the Site. The factors that contribute to the uncertainties associated with the evaluation of COPC are inherent in the data collection and data evaluation processes, including appropriate sample locations, adequate sample quantities, temporal variability of soil vapor concentrations, laboratory analyses, and QA/QC measures.

The potential for uncertainty also exists in current analytical technologies. Although standard analytical methods were used to analyze the samples, quantifying this variation is practically impossible. The QA/QC parameters for these soil vapor samples are within the acceptable limits.

Since all of the VOCs detected in soil gas were considered for quantitative assessment, there is little or no uncertainty associated with selection of COPCs for this site. Furthermore, all of the COPCs found in soil gas are reasonably associated with the current and historical activities on the property.

3.0 EXPOSURE ASSESSMENT

Exposure is defined in the USEPA risk assessment guidelines as the contact of a receptor with a chemical or physical agent (USEPA, 1989). The goal of the exposure assessment is to identify and quantify known and hypothetical exposure pathways relevant to an assessment of public health risk at the Site and to determine the quantities or concentrations of COPCs received by the potentially exposed populations. Exposure assessment at a contaminated site involves estimating human exposures from relevant intake/uptake routes through a combination of direct measurements and mathematical models.

3.1 CHARACTERIZATION OF EXPOSURE SETTING

In this section, information on physical settings, such as geology, hydrogeology, land uses, and potentially-exposed populations is presented.

3.1.1 Site Geology and Hydrogeology

The Site is located in Los Angeles County. The area is located within the Peninsular Ranges Geomorphic Province, which includes northwest-southeast trending mountain ranges and valleys that have been developed by the San Andreas Fault system (California Geological Survey [CGS], 2002). The stratigraphy underlying the Site consists primarily of recent-age alluvium (CDMG, 1965).

The Site is at an elevation of approximately 270 feet above mean sea level. The regional topographic gradient is to the southwest (USGS, 1966).

The closest mapped recently-active fault is a fragment of the Whittier Fault located approximately 2 miles southwest (CGS, 2010). According to official maps of California, the Site is not located within an Alquist-Priolo (AP) Earthquake Fault Zone boundary but is within a liquefaction zone (CDMG, 2000).

The Site is located within the San Gabriel Valley Groundwater Basin. The basin is located within the eastern portion of Los Angeles County and includes most of San Gabriel Valley and part of the Santa Ana Valley. The basin is constrained by bedrock and faults on all sides. Several aquifers are present in the basin and water-bearing units consist of Holocene alluvium up to 4,100 feet in thickness and Pleistocene marine deposits up to 2,000 feet in thickness (Department of Water Resources [DWR], 2004). Groundwater in this area is estimated to be between 55 and 80 feet below ground surface (bgs) with a general flow to the southwest as based on information available on Geotracker for a

facility located approximately 950 feet to the west (State Water Resources Control Board [SWRCB], 2013).

3.1.2 Climate

As in most of Southern California, the Site has a Mediterranean climate. Most of the precipitation falls during the winter months (December through March; Western Research Climate Center [WRCC], 2014a). At the Pomona Fairplex, California Station (No. 047050), adjacent to Covina NIGG Station (No. 042090) the average yearly minimum and maximum temperatures are 47.6 degrees Fahrenheit (°F) and 77.5°F, respectively (Period from 11/01/1893 to 3/31/2013). The annual average precipitation for the Covina NIGG FC193B Station is 18.08 inches per year (WRCC, 2014b) (**Appendix B**). This annual average precipitation can be used to predict a more Site-specific water filled porosity value that can be used in the risk modeling, which was the case for this HHRA.

3.1.3 Land Uses

The Site, mixed commercial parcel, is 3.5 acres of land, located at the southeast corner of Tyler Avenue and Garvey Avenue, in the City of El Monte, County of Los Angeles, California. The Site is currently used for several active business operations, including car sales, auto body repair, flooring and computer sales, auto repair, and a small portion as a trailer park. Several vacant spaces are also present fronting Garvey Avenue.

3.1.4 Potentially Exposed Populations

For the purpose of this HHRA, the potentially-exposed population of interest is future on-Site residents based on currently contemplated Site re-development.

3.2 IDENTIFICATION OF PONTENTIALLY COMPLETE EXPOSURE PATHWAYS

A complete exposure pathway consists of the following elements (USEPA, 1989):

- A contaminated source of chemical;
- A mechanism by which the chemical is released;
- A retention or transport medium through which a chemical travels from the point of release to the receptor location; and,
- A route of exposure (ingestion, inhalation, or dermal contact) by which the chemical enters the receptors' body and causes potential adverse health effects.

If any of these elements do not exist, the exposure pathway is considered incomplete and further evaluation of the health risks associated with the incomplete pathway is not required. In some instances, a complete or potentially complete exposure pathway may be considered a minor or insignificant pathway (meaning a pathway that is not expected to contribute significantly to the overall exposure and risk; (USEPA, 1992a) and its evaluation is not warranted.

In this HHRA, only potential indoor inhalation of VOCs originating in the subsurface (shallow soil gas less than five feet bgs), was considered. Direct contact with shallow soil, less than five feet bgs, was excluded because all constituents detected in soil samples were below applicable conservative risk-based screening levels shown in **Table 1 and Table 2** (USEPA, 2014b and RWQCB, 1996).

3.3 QUANTIFICATION OF EXPOSURE

In this section, exposure point concentration (EPC) determination, fate and transport modeling, and estimation of exposure intake or uptake doses are described. In this HHRA, only one deterministic (point estimate) exposure case was evaluated: the reasonable maximum exposure (RME), which is the maximum exposure that is reasonably expected at a Site. The central tendency exposure, or average exposure (USEPA, 1989, 1992a, and 1992b), was not evaluated because risk management decisions are based on RME health risks (USEPA, 1989).

3.3.1 Estimation of Exposure Point Concentrations (EPCs)

The USEPA defines EPCs as the average chemical concentrations a receptor may contact at an exposure domain over the exposure period (USEPA, 1989). Given that exact locations of future buildings are unknown at this time; point-by-point health risks for each soil vapor sample point were modeled to evaluate potential health risks for future on-site residents assuming that residences would be constructed over the location of each soil vapor sample.

3.3.1.1 Johnson and Ettinger Indoor Air Modeling

The USEPA (USEPA, 2004) developed the J&E model to provide a set of screening-level, one-dimensional analytical models that incorporate both convective and diffusive mechanisms for estimating the transport of contaminant vapors emanating from either subsurface soils, groundwater, or shallow soil vapor into indoor spaces located directly above the source of contamination. Inputs to the J&E models include chemical properties of the chemicals, saturated, and unsaturated zone soil properties, and structural properties of the building. The J&E models are provided as Microsoft Excel spreadsheets and each model is constructed of five worksheets:

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1. DATAENTER (Data Entry Sheet for single chemical of interest);
2. CHEMPROPS (Chemical Properties Sheet for single chemical of interest);
3. INTERCALCS (Intermediate Calculations Sheet);
4. RESULTS (Results Sheet); and
5. VLOOKUP (Lookup Tables – Physical and chemical data and toxicity values for a list of chemicals).

For this HHRA, the Advanced J&E soil gas model (SG-ADV-, version 2-mod1), modified by the Cal-EPA DTSC (Cal-EPA, 2003), was used to estimate indoor air concentrations using the soil vapor data. As will be described in Section 5.0, cancer risk and non-cancer hazard were then calculated from the predicted indoor air concentrations using the current USEPA guidance (USEPA 2009). It should be noted that the J&E model calculates both predicted indoor air concentrations and corresponding estimates of risk and hazard. Toxicity values in the J&E spreadsheets were updated in accordance with the latest Cal-EPA and USEPA data (Cal-EPA, 2011b, 2014; USEPA, 2013, 2014).

In the original J&E model, only a single chemical can be modeled at a time; modification of the model was done to allow modeling of multiple chemicals at once. Unsaturated soil zone properties and default structural properties of buildings are described in **Table 4**. Soil lithology, in terms of percent sands, silts, and clays, across the site was not well documented; however, based on Stantec-drafted boring logs for each location and best professional judgment, the shallow soil throughout the site was described as "silt" and "sandy silt. The sandy silt soil type is not included in the J&E model and based on the descriptions noted in the boring logs; silt was used as the predominant strata (USEPA, 2004). Boring logs are included in **Appendix C**. The estimated volumetric water content for this soil type was calculated using annual precipitation data for West Covina; the closest NOAA Cooperative Station to El Monte, and is presented in **Table 5**. Use of the van Genuchten model (**Table 5**) is a typical approach to approximate moisture content of soils especially underlying future buildings (USEPA, 1996). The calculated volumetric water content for this soil type (0.275) is within the range of typical moisture contents for agricultural soils (0.66 to 0.3 cm³/cm³). In addition, the J&E model default water-filled soil porosity for silt loam was also used in this HHRA to evaluate the variability of risk estimates resulting from changes in water-filled porosity because it was the closest soil classification available for the hydraulic conductivity parameter K_s (USEPA 1996).

3.3.2 UNCERTAINTIES RELATED TO EXPOSURE ASSESSMENT

Exposure assessment is a single step in the HHRA process that uses a wide array of information sources and techniques. In the absence of reliable sources of data, assumptions and inferences are often made, which lead to varying degrees of uncertainties (USEPA, 1992a), mostly on the conservative side of the HHRA. Sources of uncertainty in exposure assessment include the degrees of completeness and confidence in: 1) modeled indoor air concentrations using the J&E model and soil gas concentrations; 2) time of contact identification (for example, exposure scenario characterization, target population identification, and population stability over time); and, 3) the methodology for chemical exposure calculation. Variability or heterogeneity in exposure routes and exposure dynamics, such as age, gender, behavior, genetic constitution, state of health, and random movement of the potentially exposed populations, also cast large degrees of uncertainty over the exposure estimates.

Assuming that the detected concentrations in the bulk medium (e.g., soil gas) is the same as the EPC is a clear source of potential uncertainty in the exposure analysis. In this HHRA, as well as in other risk assessments for contaminated sites, chemical characterization was accomplished by measuring concentrations in the bulk media (e.g., soil gas concentrations) and/or estimated using fate and transport models (indoor air). This may introduce certain degree of uncertainties related to vapor intrusion due to the modeling effort. The exposure assessment process also assumes constant chemical concentrations, without taking into effect the potential changes in source depletion. Temporal and seasonal variability are not accounted for in a single set of samples which adds some degree of uncertainty.

4.0 TOXICITY ASSESSMENT

Toxicity assessment is the process of using the existing toxicity information from human or animal studies to identify potential health risks at various dose levels in exposed populations (USEPA, 1989). The purpose of toxicity assessment is to collect and weigh the available evidence regarding the potential for contaminants to cause adverse effects in exposed individuals and to provide an estimate of the relationship between the extent of exposure to a contaminant and the increased likelihood and/or severity of adverse effects. There are two major descriptors of adverse health effects used when deriving toxicity factors. Those associated with cancer (Cancer slope factors (SF) and Inhalation Unit Risk (IUR)) and non-cancer (other systemic effects) (Reference Doses (RfD) and Reference Concentrations (RfC)).

4.1 CARCINOGENIC DOSE-RESPONSE ASSESSMENT METHODOLOGY

It has been demonstrated that certain chemicals can cause cancer as a result of occupational or environmental exposure. To be health protective, the USEPA assumes that a relatively small number of molecular events can elicit changes in a cell, ultimately resulting in uncontrolled cell proliferation and cancer. This is referred to as the non-threshold theory of chemical carcinogenesis. On the basis of this theory, the USEPA uses a two part evaluation in evaluating the carcinogenic effects of contaminants: 1) assigning a weight of evidence classification; and 2) calculating a SF or a unit risk factor (URF) per medium, such as IUR in air (USEPA, 1986 and 2005).

The system for assigning a weight of evidence classification is adapted from the approach taken by the International Agency for Research on Cancer (IARC). It describes the likelihood that a chemical is a human carcinogen, based on the supporting evidence of carcinogenicity in human and animal studies (USEPA, 1986 and 2005). The USEPA weight-of evidence classification system for carcinogenicity is as follows (USEPA, 1986):

- A Human carcinogen;
- B1 or B2 Probable human carcinogen;
- C Possible human carcinogen;
- D Not classifiable as to human carcinogenicity; and,
- E Evidence of non-carcinogenicity for humans.

In the 2005 Guidelines for Carcinogen Risk Assessment (USEPA, 2005), the USEPA proposed five recommended standard hazard descriptors:

1. Carcinogenic to Humans
2. Likely to be Carcinogenic to Humans
3. Suggestive Evidence of Carcinogenic Potential
4. Inadequate Information to Assess Carcinogenic Potential
5. Not Likely to Be Carcinogenic to Humans

Because Cal-EPA is still using the USEPA 1986 weight-of-evidence classification system in the Toxicity Criteria Database (Cal-EPA, 2014) and not all carcinogenic chemicals have been converted to the new descriptors (USEPA, 2014a), the 1986 classification system is still used in this HHRA. For air the Cal-EPA estimated chemical-specific IUR, was used.

4.2 NON-CARCINOGENIC DOSE-RESPONSE ASSESSMENT METHODOLOGY

All chemicals can cause toxic effects at high enough levels of exposure. For effects other than cancer, it is generally accepted that there are thresholds below which adverse effects will not occur. A given chemical may produce a spectrum of effects that are specific to species, route and duration of exposure and dose. Toxicity factors characterizing the dose-response relationship for non-cancer effects are based on the most sensitive effect in the most sensitive species for which information is available. The toxicity factor characterizing the dose-response relationship for threshold effects, to be compared with chemical concentrations in air, is the RfC (USEPA, 1988). In general, the RfC is the estimated daily exposure dose or exposure concentration that is considered to pose no appreciable risk of deleterious effects to humans, including sensitive population subgroups.

Usually, exposures that are less than the RfC are not likely to be associated with adverse health effects. As the frequency and level of exposures exceeding the RfC increases, the likelihood for adverse effects also increases. A clear distinction that could categorize all exposures below the RfC as acceptable (risk free) and all exposures in excess of the RfC as unacceptable (causing adverse effects) cannot be made (USEPA, 1988).

The RfC, in unit of mg/m³, is derived by using the following equation (USEPA, 1996):

$$RfD \text{ or } RfC = \frac{NOAEL}{UF \times MF} \quad (\text{Eq. 1})$$

Where:

NOAEL = No observed adverse effect-level;
UF = Uncertainty factor; and,
MF = Modifying factor.

The NOAEL is the key datum in the non-carcinogenic dose response assessment process. It is defined as the highest experimental dose of a chemical at which there is no statistical or biologically significant increase in frequency or severity of adverse effects between the exposed population and its appropriate control. That is, effects may be produced at this level, but they are not considered to be adverse. Adverse effects are defined as functional impairment or pathological lesions which may affect the performance of the whole organism, or which reduce an organism's ability to respond to an additional challenge (USEPA, 1988). The RfC approach, in short, is based on the assumption that if the critical toxic effect is prevented, then all other toxic effects are prevented.

Standard UFs are ten-fold factors that address various types of uncertainty in extrapolation; these typically include the following:

- 10H: A ten-fold factor to account for the variation in sensitivity among members of the human population, especially children, pregnant women, and the elderly;
- 10A: A ten-fold factor to account for the uncertainty involved in extrapolating from animal data to humans, assuming that humans are the most sensitive species;
- 10S: A ten-fold factor to account for the uncertainty involved in extrapolating from less than chronic NOAEL (or sub-chronic NOAEL) to chronic NOAEL; and,
- 10L: A ten-fold factor to account for the uncertainty involved in extrapolating from the lowest-observed-adverse-effect-level (LOAEL) to NOAEL.

4.2.1 TOXICITY VALUES FOR COPCS

In this HHRA, the following hierarchy of available sources was used to select COPC-specific toxicity values: California Cancer Potency Factors Table or Toxicity Criteria Database (Cal-EPA, 2014), USEPA's Integrated Risk Information System (IRIS) database (USEPA, 2014a), USEPA Regional Screening Levels (RSLs) (USEPA, 2014b) which also includes some values from the California Toxicity Criteria Database (Cal-EPA 2014), National Center for Environmental Assessment (NCEA) risk assessment issue papers. This hierarchy is similar to the USEPA's recommendation (USEPA, 2003).

For COPCs at the Site, the weight of evidence cancer classification, toxicity values for carcinogenic and non-carcinogenic effects for the inhalation exposure route are presented in **Table 6**. Chemical-specific toxicity values are continually being revised by the USEPA and Cal-EPA. Typically, updates in the toxicity values are refinements rather than extensive changes.

4.2.2 UNCERTAINTIES RELATED TO TOXICITY ASSESSMENT

Toxicity assessment is a critical step in the development of risk estimates for potentially exposed populations. If no toxicity data are available, there are few options on how to evaluate risks, except using structure activity relationships or awaiting more data. In general, the greatest sources of uncertainty associated with toxicity values used in a HHRA may include some of the following: 1) using dose response information from animal studies to predict effects in humans; 2) using dose response information from effects observed at high tested doses to predict the adverse effects that may occur following human exposure to the low levels more frequently encountered in the ambient environment; 3) using dose response information from short term exposure studies to predict the effects of long term exposures and vice versa; and, 4) using the dose response information from homogeneous animal populations or healthy human populations to predict the effects likely to be observed in the general population consisting of individuals with a wide range of sensitivities.

5.0 RISK CHARACTERIZATION

Risk characterization is the culmination of the risk assessment process (USEPA, 1992a and 1992b); it integrates the results of the identification of COPCs, exposure assessment, and toxicity assessment to describe the risks to individuals and populations in terms of extent and severity of probable adverse health risks under both current and future land use conditions. The overall quality of the assessment, including the confidence on the risk estimates, is discussed in Section 4.5.4 (Uncertainties Associated with Risk Characterization) below.

In the HHRA, the health risk characterization process involves integrating the exposure concentrations and the toxicity values to estimate two types of potential health effects, carcinogenic and non-carcinogenic. Because the development of carcinogenic and non-carcinogenic effects is assumed to be caused by different mechanisms of action, different methods are used to evaluate these effects, as described below.

5.1 CARCINOGENIC RISK CHARACTERIZATION METHODOLOGY

Cancer risk from inhalation of VOCs in residential indoor air was estimated using the following equation (USEPA 2009):

$$\text{ILECR} = (\text{IUR} \times \text{ED} \times \text{EF} \times \text{C}_{\text{building}}) / (\text{ATc} \times 365 \text{ days/year}) \quad (\text{Eq. 2})$$

Where:

- $\text{C}_{\text{building}}$ = Chemical-specific J&E modeled indoor air concentration, $\mu\text{g}/\text{m}^3$;
- ED = Exposure duration (years);
- EF = Exposure frequency (days/year);
- ATc = Averaging time for carcinogenic effects, equals a lifetime 70 years.

It should be noted that use of IUR in a risk equation does not require the age-specific exposure parameters such as intake rate (e.g., inhalation rate) and body weight (USEPA 2009). In the HHRA, ILECRs from all COPCs were combined, regardless of weight-of-evidence. These ILECR values are expressed in terms such as one in one hundred thousand (1×10^{-5} , 10^{-5} , $1 \text{E } 05$, or 0.00001) or one in a million (1×10^{-6} , 10^{-6} , $1 \text{E } 06$, or 0.000001). An ILECR of $1 \text{E}-06$ means that an exposed individual may have an added one in one million chance of developing cancer over a lifetime, or one person among one-million-exposed people might be expected to develop cancer as a result of exposure to Site COPCs.

5.2 NON-CARCINOGENIC RISK CHARACTERIZATION METHODOLOGY

Non-cancer hazard from inhalation of VOCs in residential indoor air was estimated using the following equation (USEPA 2009):

$$HQ = EC/RfC \times 1,000 \mu\text{g}/\text{mg} \quad (\text{Eq. 3})$$

Where:

HQ (unitless) = Hazard Quotient;

EC = Chemical-specific exposure concentration, in $\mu\text{g}/\text{m}^3$ (Equation 1);

RfC = Inhalation reference concentration, in milligrams per cubic meter (mg/m^3)

As with the case of carcinogenic effects, the potential additivity of non-carcinogenic hazard due to exposure to all COPCs via indoor air inhalation is quantified as a HI, which is the sum of all possible chemical specific HQs (USEPA, 1989).

If the HQ or HI is greater than one, meaning the exposure level exceeds the threshold RfD or RfC, a potential for adverse non-carcinogenic health effects may exist. If the HQ or HI is equal to or less than one, exposures to the COPCs are not expected to result in an adverse health effect. As the magnitude of the exposures exceeding the RfC increases, the possibility for adverse effects also increases. However, a clear distinction that could categorize all exposures below the RfC as acceptable (risk free) and all exposures in excess of the RfC as unacceptable (causing adverse effects) cannot be made (USEPA 1988).

It should be noted that HQs and HIs are not statistical probabilities, such as ILECR, and the level of concern does not increase linearly as the RfC is approached or exceeded. For regulatory purposes, an HI of one or less is considered to be an exposure that is unlikely to be of concern for members of the general population (USEPA, 1992). If the pathway specific or cumulative exposure HI is greater than one, it does not necessarily mean that adverse health effects will occur, but does indicate that further evaluation may be appropriate.

5.3 HUMAN HEALTH RISK RESULTS

Chemical-specific and cumulative RME health risks to future onsite residents from vapor intrusion are presented in **Table 7** for all soil vapor boring locations. The results are summarized and discussed below. The following table summarizes the ILECR and HI for each location.

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Soil Gas Sample	Depth (ft.)	Site-Specific ϵ_w		Default ϵ_w	
		ILECR	HI	ILECR	HI
SV-1	5	8E-07	9E-03	2E-06	2E-02
SV-3	5	7E-07	8E-03	2E-06	2E-02
SV-4	5	6E-07	7E-03	2E-06	2E-02
SV-5	5	4E-07	4E-03	1E-06	1E-02
SV-6	5	2E-08	4E-04	6E-08	1E-03
SV-7	5	3E-07	3E-03	8E-07	9E-03
SV-8	5	6E-08	7E-04	2E-07	2E-03
SV-11	5	1E-06	1E-02	3E-06	3E-02
SV-12	5	2E-06	2E-02	6E-06	7E-02
SV-16	5	8E-07	1E-02	2E-06	3E-02
SV-19	5	5E-07	6E-03	1E-06	2E-02
SV-20	5	4E-08	8E-04	1E-07	2E-03
SV-21	5	2E-07	2E-03	5E-07	6E-03
SV-22	5	2E-07	4E-03	7E-07	1E-02

The ILECR and HI estimates designated as "site-specific" are based on indoor air concentrations of COPCs generated by the J&E model using a value for water-filled soil porosity (ϵ_w) for silt (0.275) that was derived using the climate and rainfall data for the El Monte area. The ILECR and HI estimates designated as "default" are based on the indoor air concentrations of COPCs generated by the J&E model using the default value for water-filled porosity of silt (0.167). The default value is more conservative than the "site-specific" value and results in somewhat higher predicted concentrations of COPCs in indoor air and thus higher estimates of cancer risk and non-cancer hazard. Soil type, depth to sample, site-specific water-filled soil porosity and average soil temperature are the only user-defined inputs used in calculations of cancer risk and non-cancer hazard in this HHRA. Relevant J&E Models are presented in **Appendix D**.

The individual COPC that is the major contributor to both the cancer risk and non-cancer hazard is PCE. The contributions of the individual COPCs to the estimates of ILECR and HQ are shown in **Table 7**.

5.4 UNCERTAINTIES RELATED TO RISK CHARACTERIZATION

Uncertainties in the risk characterization step are essentially the accumulated uncertainties associated with the methodologies used in estimating the health risk results. They are the product of many factors affecting each component of the HHRA process, namely data collection/evaluation and selection of COPCs, exposure

assessment, and toxicity assessment. There are a number of generic sources of uncertainties in the characterization of risk and hazard such as measurement errors, conservative exposure and modeling assumptions, and uncertainty and variability of the values used in the assessment. The use of default variable values to estimate exposure, and toxicity factors derived (largely) from laboratory animal studies generally bias the results of the HHRA towards conservatism (over rather than under estimates of risk and hazard).

The uncertainties for this particular HHRA are primarily related to how well the environmental samples represent current and future conditions on the site, and the subsequent quantification of exposure point concentrations. The inclusion of all detected analytes as COPCs and the use of point-by-point detected concentrations as RME EPCs is conservative and reduces uncertainty by quantitatively evaluating all constituents detected in soil gas samples. The sample results represent soil vapor conditions at one point in time and do not necessarily account for temporal variability. Another uncertainty includes the conservative assumption that COPC concentrations do not decrease over time in the environment, but remain at the concentrations measured during the Stantec investigation. For example, concentrations of the primary risk-driving chemical, PCE, are assumed to remain steady although PCE is known to degrade in the subsurface.

In addition, the pathway quantitatively evaluated in the HHRA is considered to be the primary exposure pathway at the Site (e.g., indoor inhalation of VOCs). Minor or secondary pathways that may exist were not considered in the analysis (e.g., outdoor inhalation), nor were sub-surface direct exposure to soil risk greater than 5 feet bgs taken into consideration.

Uncertainties in this HHRA are also related to differences in some Cal-EPA- and USEPA derived toxicity values. DTSC-recommended Cal-EPA toxicity values are more conservative than USEPA toxicity values for certain carcinogenic risk-driving chemicals (e.g., PCE), thus adding to the conservatism of the HHRA.

Finally, it was assumed in the risk characterization step that the health effects from multi-chemical exposures are additive. The net overall uncertainty associated with risk characterization is believed to have a medium-to-high bias toward overestimation of risks.

5.5 SUMMARY AND CONCLUSIONS

The objective of this HHRA was to estimate potential health risks to future on-Site residents from volatile organic compounds detected in soil gas samples migrating to indoor air inside homes that may be built on the Site in the future. Stantec included all



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chemicals detected in soil gas as COPCs and used the concentrations detected in each sample location as exposure point concentrations (EPCs). Indoor air concentrations of COPCs were estimated using the Advanced J&E model using both the model standard default value for the water-filled soil porosity of silt, and a Site-specific value for water filled soil porosity using annual precipitation rates for the El Monte vicinity. Estimates of cancer risk and non-cancer hazard were calculated for future residents consistent with current guidance (USEPA 2009).

According to the USEPA, an ILECR of 1E-06 is considered as the point of departure, while the ILECR range between 1E-04 to 1E-06 is considered to be the target range for acceptable risks at sites where remediation is considered (USEPA, 1990). Estimates of lifetime excess cancer risk associated with exposure to chemicals of less than 1E-06 are considered to be so low as to warrant no further investigation or analysis. Within the state of California, if cumulative excess lifetime cancer risks exceed 1E-06, DTSC generally requires further evaluation or discussion of these risks so that risk management decisions can be made. It should also be noted that cancer risks in the 1E-06 to 1E-04 range or higher do not necessarily mean that adverse health effects will be observed. The current methodology for estimating the carcinogenic potential of chemicals is believed to not underestimate risk, but could overestimate the true risk by a considerable degree. The results of this HHRA are interpreted within the context of the regulatory and public health perspective of acceptable cancer risks and non-cancer hazards from controllable sources of exposure; however, recommendations are based on the most conservative risk estimate of 1E-06.

The findings of the HHRA support the following conclusions:

- The major contributor to risk and hazard at all locations is PCE.
- Calculated risks were at or well below the 1E-06 point of departure for 13 of 14 sample locations collected throughout the Site using Site-specific water-filled porosity values for "silt". Additionally, using the most conservative model default water-filled porosity values, the cancer risk only slightly exceeds the point of departure in six sample locations where the calculated risk was estimated between 2E-06 and 6E-06, all driven by PCE. The site-specific data is more representative of actual site conditions than the default values, and the site-specific data is the information to be relied on with respect to evaluating potential mitigation measures (e.g., soil vapor barriers).
- The highest risks were identified at sample locations SV-1, SV-3, SV-4, SV-11, SV-12, and SV-16, which all slightly exceeded a target point of departure of 1E-06 using model default water-filled porosity values. Although the associated risk was just above the 1E-06 point of departure using the model

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defaults, only one location, SV-12, closest to Tyler Avenue near a drain, slightly exceeded the point of departure ($2E-06$) when using Site-specific soil volumetric water content.

- The potential human health risks are considered to be acceptable based on:
 - The estimated cancer risks from migration of vapors from the subsurface to indoor air across the site are lower than $1E-06$ in 13 of 14 sample locations using Site-specific water-filled porosity values in the ILECR calculation. In the one location, SV-12, near a drain and Tyler Avenue, the ILECR slightly exceeds $1E-06$ ($2E-06$) but is less than $1E-05$, which is the level where additional actions may be warranted (Cal EPA 2011b).
 - Because the standard of acceptable risk of $1E-06$ was slightly exceeded in the vicinity of SV-12, a conservative approach for future residential development in this particular area would be to install vapor barriers to control potential unacceptable vapor intrusion concerns to approximately 50 feet further inside the property boundary from Tyler Avenue to the area of SV-16 where acceptable risk is presented. Further soil vapor sampling could potentially reduce the proposed extent of vapor barrier locations.
- Potential non-cancer hazards were below the target HI of 1.0 in all samples.
- Based on the set of data collected by Stantec in February 2014 and using conservative J&E Model default parameters with Site-specific water-filled porosity values, the levels of PCE detected in soil gas do not represent an unacceptable vapor intrusion risk to future residents, with the possible exception of the area of SV-12. In order to define the extent of impact at SV-12 (and the extent to which vapor barriers may potentially be warranted), Stantec recommends performing further soil vapor sampling in the area of SV-12.

6.0 REFERENCES

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**Human Health Risk Assessment
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SEC Tyler and Garvey Avenues
El Monte, California**

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SEC Tyler and Garvey Avenues
El Monte, California**

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September 17, 2014

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7.0 LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and existing at this time. The use of this report is subject to the following limitations:

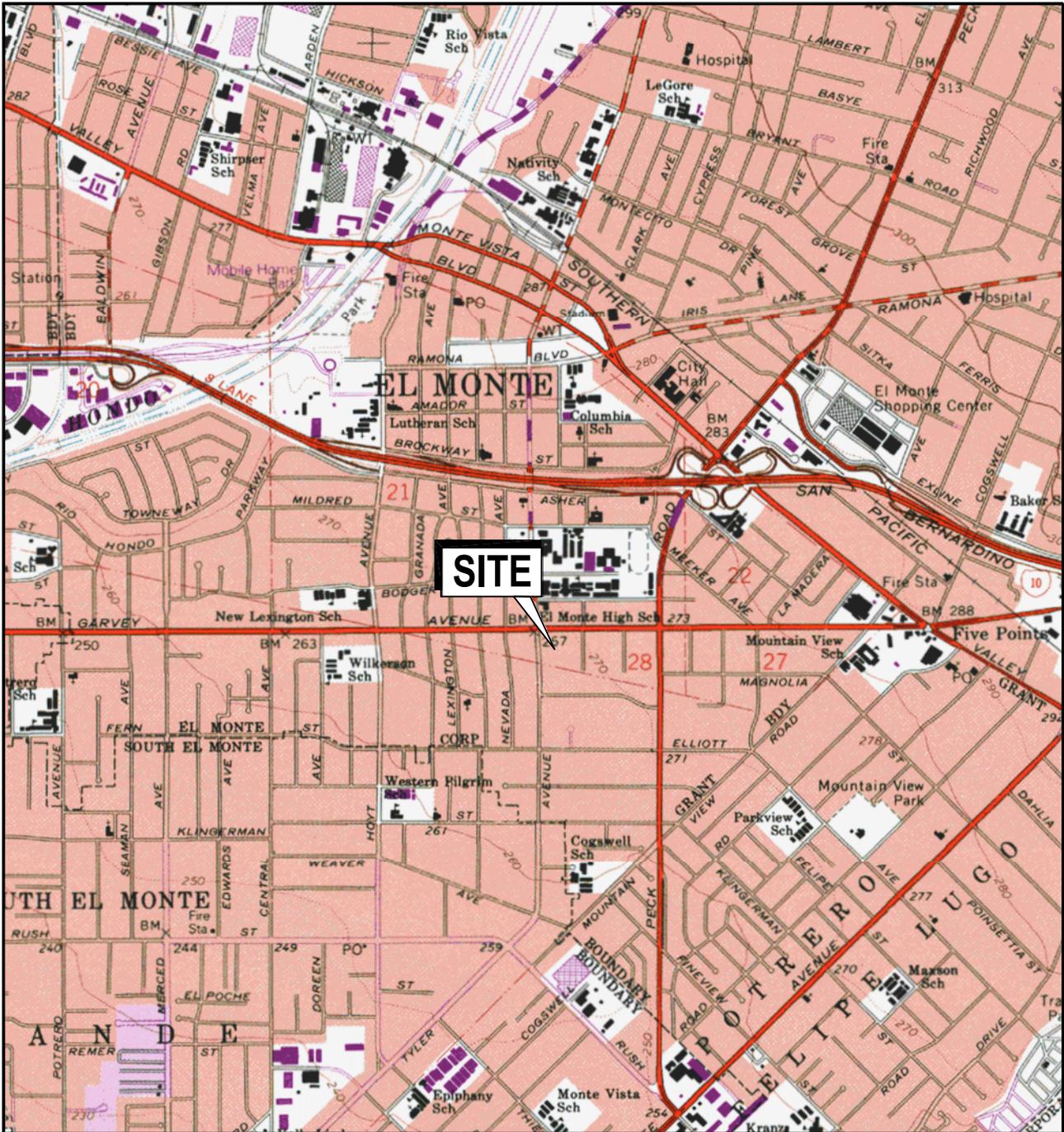
1. The data and findings presented in this report are valid as of the dates when the investigations were performed. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.
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**Human Health Risk Assessment
Multiple Commercial Parcels
SEC Tyler and Garvey Avenues
El Monte, California**
LIMITATIONS
September 17, 2014

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FIGURES



Reference: U.S.G.S., 1966, Baldwin Park Quadrangle California - Los Angeles County, 7.5' Series Topographic. Photorevised 1981.



NORTH
SCALE
1 inch = 2000 feet
0 1000 2000



CALIFORNIA
QUADRANGLE LOCATION



25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA
PH (909) 335-6116 FAX (909) 335-6120

FOR:
CITY VENTURES
TWO PARCELS
SEC CORNER GARVEY AND TYLER AVES.
EL MONTE, CALIFORNIA

JOB NUMBER:
185803086

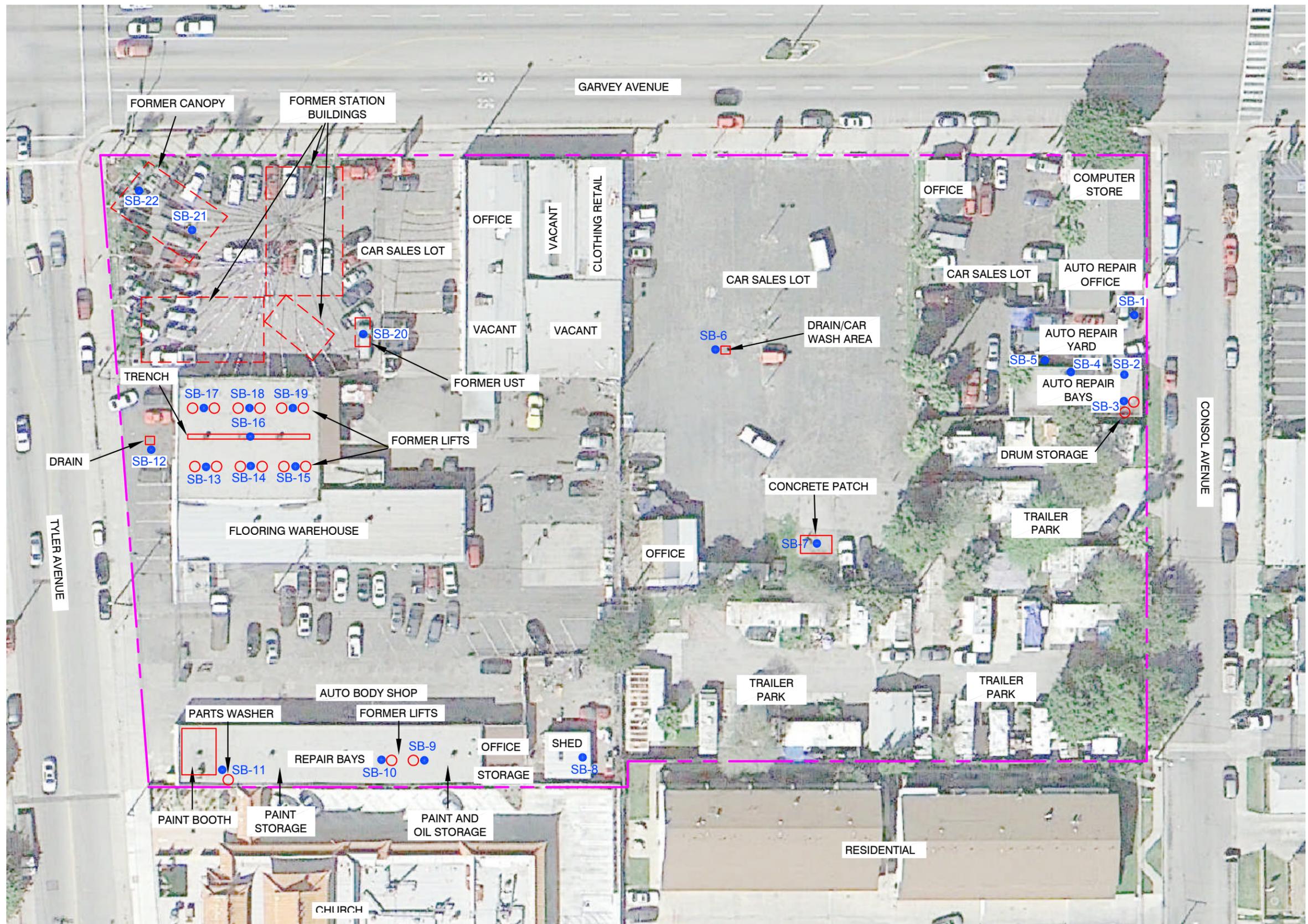
DRAWN BY:
KD

CHECKED BY:
KD

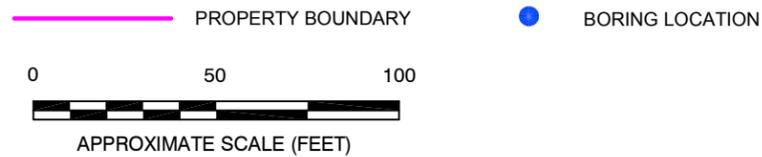
APPROVED BY:
KE

FIGURE:
1
DATE:
10/1/13

SITE LOCATION MAP



LEGEND:



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 REDLANDS, CALIFORNIA
 PH (909) 335-6116 FAX (909) 335-6120

FOR:
 CITY VENTURES
 MULTIPLE MIXED USE PARCELS
 SEC CORNER GARVEY AND TYLER AVES.
 EL MONTE, CALIFORNIA

JOB NUMBER:
 185803086

DRAWN BY:
 KD

CHECKED BY:
 KD

APPROVED BY:
 KE

FIGURE:

2

DATE:
 03/27/2014

TABLES

Table 1
Summary of Soil Analytical Results - TPH and VOCs
Tyler and Garvey
El Monte, California

Sample ID ⁽¹⁾	Sample Depth	Sampling Date	TPH ⁽²⁾			VOCs ⁽²⁾					
			8015m ⁽³⁾			8260 ⁽³⁾					
			TPHg	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl-tert-butyl ether (MTBE)	All Other VOCs
USEPA Residential RSLs (mg/kg)			NE	NE	NE	1.2	4,900	5.8	580	47	varies
LACRWQCB ESLs (mg/kg)			100	100	1,000	0.044	2.3	9	25	NA	varies
Samples											
SB-1-5	5	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-1-10	10	2/10/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-2-5	5	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-2-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-3-5	5	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-3-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-4-5	5	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-4-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-5-5	5	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-5-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-6-5	5	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-7-10	5	2/10/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-7-15	15	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-8-5	5	2/11/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-9-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-9-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-9-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-10-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-10-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-10-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-11-5	5	2/11/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-12-5	5	2/11/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-13-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-13-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-13-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-14-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-14-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-14-15	15	2/11/2014	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-15-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-15-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-15-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-16-5	5	2/11/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	Tetrachloroethylene - 0.00207
SB-17-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-17-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-17-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-18-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-18-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-18-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-19-5	5	2/11/2014	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-19-10	10	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-19-15	15	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-20-5	5	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-20-10	10	2/11/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-20-15	15	2/11/2014	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA
SB-21-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-21-15	15	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-21-20	20	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-5	5	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-10	10	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-22-15	15	2/10/2014	<5.0	<5.0	<5.0	<0.001	<0.001	<0.001	<0.001	<0.005	ND-varies
SB-22-20	20	2/10/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

- (1) Refer to Figure 2 for sampling locations
- (2) Concentrations reported in milligrams per kilogram (mg/kg)
- (3) EPA Test Method
- < - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

NA -	Not Analyzed
VOCs -	Volatile Organic Compounds
LACRWQCB ESL -	LA California Regional Water Quality Control Board Environmental Screening Level, groundwater less than 20 feet below contamination (May 1996).
USEPA RSLs -	United States Environmental Protection Agency Regional Screening Levels for Residential Soils- May 2014

Table 2
Summary of Soil Analytical Results - Metals
Tyler and Garvey
El Monte, California

Sample ID	Sampling Depth ⁽¹⁾	Sampling Date	Title 22 Metals ⁽²⁾																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Mercury	Selenium	Silver	Thallium	Vanadium	Zinc
SB-4-5	5	2/21/2014	ND<3.0	ND<5.0	95	ND<1.0	ND<2.0	13	10	21	3.7	ND<5.0	12	ND<0.10	ND<5.0	ND<2.0	ND<2.0	31	43
USEPA RSL for Residential Soils (mg/Kg)			31	0.67	15,000	160	70	120,000 ⁽³⁾	23	3,100	400	390	1,500	9.4	3900	3900	0.78	390	23,000
Typical background levels in California ⁽⁴⁾			0.26-1.95	0.6-11.8	133-1400	0.25-2.7	0.05-1.7	23-1579	2.7-46.9	9.1-96.4	12.4-97.1	0.1-9.6	9-509	0.05-0.90	0.015-0.430	0.10-3.80	0.29-1.10	39-288	88-236

NOTES:

(1) Sample depth is reported as feet below ground surface

(2) Concentrations reported in mg/Kg

(3) As chromium (III), insoluble salts

(4) Background Concentrations of Trace and Major Elements in California Soils, Bradford et al., Kearney Foundation Special Report, 1996, cited in USEPA Region IX, 2004 PRG Table.

ND< - Indicates the concentration was not detected above the laboratory method detection limit.

ABBREVIATIONS:

US EPA RSL - United States Environmental Protection Agency Regional Screening Levels

Table 3
Soil Vapor Sampling Analytical Data
Tyler and Garvey
El Monte, California

Screening Levels (ug/m3)			TCE	PCE	Benzene	Toluene	Ethylbenzene	Xylenes	Vinyl chloride	Other VOCs
Soil Vapor ESL-Resident			300	210	42	160,000	490	52,000	16	NE
Soil Vapor ESL-Commercial			3000	2,100	420	1,300,000	4,900	440,000	160	NE
Existing Resident - DTSC (0.002 Attenuation)			240	205	42	155,000	550	50,000	15.5	NE
Existing Commercial - DTSC (0.001 Attenuation)			3000	2080	420	1,300,000	4,900	4,400,000	160	NE
Future Resident - DTSC (0.001 Attenuation)			480	410	84	310,000	1,100	100,000	31	NE
Future Commercial - DTSC (0.0005 Attenuation)			6,000	4,160	840	2,600,000	9,800	8,800,000	320	NE
<i>Samples</i>										
Sample Name	Depth (ft)	Sample Date	TCE	PCE	Benzene	Toluene	Ethylbenzene	Xylenes	Vinyl chloride	Other VOCs
SV-1	5	2/11/2014	<8	849	<8	55	<8	<8	<8	<8
SV-3 1P	5	2/11/2014	<8	839	<8	144	<8	<8	<8	<8
SV-3 3P	5	2/11/2014	<8	726	<8	19	<8	<8	<8	<8
SV-3 10P	5	2/11/2014	<8	743	<8	22	<8	<8	<8	<8
SV-4	5	2/11/2014	<8	693	<8	21	<8	<8	<8	<8
SV-5	5	2/11/2014	<8	418	<8	<8	<8	<8	<8	<8
SV-6	5	2/11/2014	<8	25	<8	143	<8	<8	<8	<8
SV-7	5	2/11/2014	<8	354	<8	52	<8	<8	<8	<8
SV-7 REP	5	2/11/2014	<8	271	<8	25	<8	<8	<8	<8
SV-8	5	2/11/2014	<8	76	<8	<8	<8	<8	<8	<8
SV-11	5	2/11/2014	<8	1,240	<8	23	<8	45	<8	<8
SV-12	5	2/11/2014	<8	2,540	<8	235	<8	<8	<8	<8
SV-16	5	2/11/2014	<8	971	<8	192	<8	<8	<8	<8
SV-19	5	2/11/2014	<8	519	10	429	<8	143	<8	<8
SV-20	5	2/11/2014	<8	44	<8	306	<8	<8	<8	<8
SV-21	5	2/11/2014	<8	220	<8	<8	<8	<8	<8	<8
SV-22	5	2/11/2014	<8	280	<8	407	<8	214	<8	<8
<p>NE - Not Evaluated</p> <p>PCE - Tetrachloroethene</p> <p>TCE - Trichloroethene</p> <p>VOCs - Volatile organic compounds</p> <p>ESL=SF RWQCB Environmental Screening Level</p> <p>Soil gas screening levels = more conservative of US EPA RSLs for indoor air or DTSC-modified residential indoor air screening level or commercial indoor air screening level ÷ default DTSC attenuation factor (See above)</p>										

TABLE 4
Johnson and Ettinger Soil Gas Modeling Parameters
Tyler and Garvey
EI Monte, California

Modeling Parameters	Symbol	Units	RME	Source
<i>Inhalation of VOCs in Indoor Air</i>				
Chemical concentration in soil gas	C_g	$\mu\text{g}/\text{m}^3$		
Depth below grade to bottom of enclosed space floor	L_f	cm	15.2	Default, J&E Model
Soil gas sampling depth below grade (5-foot soil gas)	L_s	cm	152.4	Site-specific, 5 feet
Average soil temperature	T_s	$^{\circ}\text{C}$	18.3	Site-specific, EI Monte, CA (US EPA 2004b)
Thickness of soil stratum A (5-foot soil gas)	h_A	cm	152.4	Site-specific, 5 feet and 6 Feet
Average soil stratum A SCS soil type (for soil vapor permeability) for 5-foot soil gas			SI	J&E Model VLookUP (Silt or Sandy Silt)
Stratum A soil dry bulk density	ρ_b^A	g/cm^3	1.35	J&E Model Default for SI
Stratum A soil total porosity	n^A	cm^3/cm^3	0.489	J&E Model Default for SI
Stratum A soil water-filled porosity Default	θ_w^A	cm^3/cm^3	0.167	J&E Model Default for SI
Stratum A soil water-filled porosity Site Specific	θ_w^A	cm^3/cm^3	0.275	Site Specific Table 5
Enclosed space floor thickness	L_{crack}	cm	10	Default, J&E Model, USEPA, 2004a
Soil-building pressure differential	ΔP	$\text{g}/\text{cm}\cdot\text{s}^2$	40	Default, J&E Model, USEPA, 2004a
Enclosed space floor length	L_B	cm	1,000	Default, J&E Model, USEPA, 2004a
Enclosed space floor width	W_B	cm	1,000	Default, J&E Model, USEPA, 2004a
Enclosed space height	H_B	cm	243.8	Default, J&E Model, USEPA, 2004a
Floor-wall seam crack width	w	cm	0.1	Default, J&E Model, USEPA, 2004a
Average vapor flow rate into building (or leave blank)	Q_{soil}	L/m	5	Default, J&E Model, USEPA, 2004a
RECEPTOR - Residential				
Indoor air exchange rate - Default Residential	ER	1/h	0.5	Cal-EPA, 2011b
Averaging time (Carcinogenic)	AT_C	yrs	70	Cal-EPA, 2011b
Averaging time (Noncarcinogenic)	AT_{NC}	yrs	30	Cal-EPA, 2011b, USEPA, 1990b
Exposure duration	ED	yrs	30	Cal-EPA, 2011b, USEPA, 1990b
Exposure frequency	EF	days/yr	350	Cal-EPA, 2011b

Notes: RME - Reasonable Maximum Exposure (USEPA, 1989)

TABLE 5
ESTIMATION OF VOLUMETRIC WATER CONTENT USING PRECIPITATION DATA
SILT AND SILTY LOAM SOIL TYPE
Tyler and Garvey
El Monte, California

Site Location: Covina, California, based on Covina NIGG FC193B Climate Summary Data (10/01/1929 to 2/28/2013)
<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2090>

Month	P (in)	P (cm)	Q (cm)	I (cm)	I (m)	q _w
Jan	3.78	9.60	9.01	0.60		
Feb	3.93	9.98	9.39	0.60		
Mar	2.88	7.32	6.73	0.59		
Apr	1.27	3.23	2.68	0.55		
May	0.32	0.81	0.41	0.40		
Jun	0.10	0.25	0.03	0.22		
Jul	0.03	0.08	0.00	0.00		
Aug	0.10	0.25	0.03	0.00		
Sep	0.33	0.84	0.43	0.41		
Oct	0.74	1.88	1.37	0.50		
Nov	1.62	4.11	3.55	0.56		
Dec	2.99	7.59	7.01	0.59		
Total Yearly	18.09	45.95	40.64	5.01	0.050	0.275

Notes:

For simplicity, it was assumed that one primary storm/rain event occurs per month.

- P = Precipitation (rain fall + snow melt) (cm)
- Q = Runoff (cm) = $(P - 0.2S)^2 / (P + 0.8S)$, for $P \geq 0.2S$ 0.2S is the initial precipitation abstraction.
- S = Water retention parameter (cm) = $(2540 / CN) - 25.4$ 0.52
- CN = Curve number, for hard surfaces/right-of-way, rooftop. 98
- I = Infiltration rate (m/y) = P - Q
- q_w = Volumetric water content in vadose zone soil (unitless) =
 $q_w = q_T * (I / K_s)^{1/(2b+3)}$
- q_T = Total soil porosity (unitless) = 0.489 for Silt (USEPA, 2004)
- K_s = Saturated hydraulic conductivity (m/y) = 120 for silt loam (USEPA, 1996)
- b = Soil-specific exponential parameter (unitless)
- 1/(2b+3) For silt loam = 0.074 for silt loam (USEPA, 1996)

TABLE 6
Toxicity Values of Detected Chemicals in Soil Vapor
Tyler and Garvey
EI Monte, California

Chemical Detected in Soil Gas	CAS	Cancer Weight of Evidence USEPA (IARC)	Inhalation Unit Risk ($\mu\text{g}/\text{m}^3$) ⁻¹		Chronic Reference Concentration (mg/m^3)	
VOCs				Ref		Ref
Tetrachloroethene (PCE)	127-18-4	C (2B)	5.9E-06	1	3.5E-02	1
Benzene	71-43-2	A (1)	2.9E-05	1	3.0E-02	3
Toluene	108-88-3	D (3)			3.0E-01	1
Xylenes (m-, p-)	108-38-3; 106-42-3				1.0E-01	3

Notes:

($\mu\text{g}/\text{m}^3$)⁻¹ = Risk per micrograms per cubic meter

-- = Not Available

1 = Carcinogenic to humans; 2A = Probably carcinogenic to humans; 2B = Possibly carcinogenic to humans; 3 = Not classifiable as to its carcinogenicity to humans.

1. California EPA (OEHHA) Toxicity Criteria Database (Cal-EPA, 2014). Available at: <http://www.oehha.ca.gov/risk/ChemicalDB/>

3. USEPA Integrated Risk Information System (USEPA, 2014).

A = Known human carcinogen; B2 = Likely/probable to be carcinogenic to humans; C= Possible Human Carcinogen; D = Not classifiable as to human carcinogenicity

IARC = International Agency for Research on Cancer

mg/m^3 = milligrams per cubic meter

TABLE 7
Chemical-Specific Cumulative Indoor Health Risks to Future On-Site Residents
Based on Five-Foot Soil Gas Data , SV-1, SV-3 through SV-6 through SV-8, SV-11, SV-12, SV-16, and SV-19 through SV-22
Tyler and Garvey
El Monte, California

Location: SV/SB-1-Auto Repair Office and Yard	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	2.1E-06	2.4E-02	100%	99%	7.5E-07	8.5E-03	100%	99%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	1.9E-04		1%	NA	7.2E-05		1%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	2E-06	2E-02	100%	100%	8E-07	9E-03	100%	100%
Location: SV/SB-3(1P), Drum Storage/Auto Repair Bays	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	2.0E-06	2.2E-02	100%	98%	7.1E-07	8.0E-03	100%	98%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	4.9E-04		2%	NA	1.9E-04		2%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	2E-06	2E-02	100%	100%	7E-07	8E-03	100%	100%
Location: SV/SB-4, Auto Repair Yard/Bays	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	1.6E-06	1.8E-02	100%	100%	5.8E-07	6.6E-03	100%	100%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	7.2E-05		0%	NA	2.7E-05		0%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	2E-06	2E-02	100%	100%	6E-07	7E-03	100%	100%
Location: SV/SB-5, Auto Repair Yard/Bays (West)	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	9.7E-07	1.1E-02	100%	100%	3.5E-07	4.0E-03	100%	100%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	0.0E+00		0%	NA	0.0E+00		0%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	1E-06	1E-02	100%	100%	4E-07	4E-03	100%	100%
Location: SV/SB-6, Drain/Car Wash Area	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	5.8E-08	6.6E-04	100%	57%	2.1E-08	2.4E-04	100%	56%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	4.9E-04		43%	NA	1.9E-04		44%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	6E-08	1E-03	100%	100%	2E-08	4E-04	100%	100%
Location: SV/SB-7, Concrete Patch	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	8.3E-07	9.3E-03	100%	98%	3.0E-07	3.4E-03	100%	98%
Benzene	0.0E+00	0.0E+00		0%	0.0E+00	0.0E+00		0%
Toluene	NA	1.8E-04		2%	NA	6.8E-05		2%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	8E-07	9E-03	100%	100%	3E-07	3E-03	100%	100%

TABLE 7
Chemical-Specific Cumulative Indoor Health Risks to Future On-Site Residents
Based on Five-Foot Soil Gas Data , SV-1, SV-3 through SV-6 through SV-8, SV-11, SV-12, SV-16, and SV-19 through SV-22
Tyler and Garvey
EI Monte, California

Location: SV/SB-8, Shed	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	1.8E-07	2.0E-03	100%	100%	6.4E-08	7.2E-04	100%	100%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00		0%
Toluene	NA	0.0E+00		0%	NA	0.0E+00		0%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	2E-07	2E-03	100%	100%	6E-08	7E-04	100%	100%
Location: SV/SB-11, Parts Washer								
	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	2.9E-06	3.3E-02	100%	99%	1.0E-06	1.2E-02	100%	99%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00	0%	0%
Toluene	NA	7.9E-05		0%	NA	3.0E-05		0%
Xylenes (m-, p-)	NA	4.1E-04		1%	NA	1.5E-04		1%
TOTAL	3E-06	3E-02	100%	100%	1E-06	1E-02	100%	100%
Location: SV/SB-12, Drain/Tyler Avenue								
	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	5.9E-06	6.7E-02	100%	99%	2.1E-06	2.4E-02	100%	99%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00	0%	0%
Toluene	NA	8.1E-04		1%	NA	3.1E-04		1%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	6E-06	7E-02	100%	100%	2E-06	2E-02	100%	100%
Location: SV/SB-16, Trench Near Flooring Warehouse								
	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	2.3E-06	2.6E-02	100%	98%	8.2E-07	9.3E-03	100%	97%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00	0%	0%
Toluene	NA	6.6E-04		2%	NA	2.5E-04		3%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	2E-06	3E-02	100%	100%	8E-07	1E-02	100%	100%
Location: SV/SB-19, Former Lifts Near Flooring Warehouse								
	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	1.2E-06	1.4E-02	90%	82%	4.4E-07	4.9E-03	90%	81%
Benzene	1.3E-07	3.5E-04	10%	2%	4.9E-08	1.3E-04	10%	2%
Toluene	NA	1.5E-03		9%	NA	5.6E-04		9%
Xylenes (m-, p-)	NA	1.3E-03		8%	NA	4.7E-04		8%
TOTAL	1E-06	2E-02	100%	100%	5E-07	6E-03	100%	100%
Location: SV/SB-20, Former UST								
	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
Chemical	J&E Default		RME Chemical Contribution		J&E Site-Specific Water-Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	1.0E-07	1.2E-03	100%	52%	3.7E-08	4.2E-04	100%	51%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00	0%	0%
Toluene	NA	1.1E-03		48%	NA	4.0E-04		49%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	1E-07	2E-03	100%	100%	4E-08	8E-04	100%	100%

TABLE 7
Chemical-Specific Cumulative Indoor Health Risks to Future On-Site Residents
Based on Five-Foot Soil Gas Data , SV-1, SV-3 through SV-6 through SV-8, SV-11, SV-12, SV-16, and SV-19 through SV-22
Tyler and Garvey
El Monte, California

Location: SV/SB-21, Former Canopy (East)	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
	J&E Default		RME Chemical Contribution		J&E Site-Specific Water- Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	5.1E-07	5.8E-03	100%	100%	1.9E-07	2.1E-03	100%	100%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00	0%	0%
Toluene	NA	0.0E+00		0%	NA	0.0E+00		0%
Xylenes (m-, p-)	NA	0.0E+00		0%	NA	0.0E+00		0%
TOTAL	5E-07	6E-03	100%	100%	2E-07	2E-03	100%	100%
Location: SV/SB-22, Former Canopy (West)								
Location: SV/SB-22, Former Canopy (West)	Future Land Use With Default Water-Filled Porosity (0.167 cm ³ /cm ³)				Future Land Use With Site-Specific Water-Filled Porosity (0.275 cm ³ /cm ³)			
	J&E Default		RME Chemical Contribution		J&E Site-Specific Water- Filled Porosity		RME Chemical Contribution	
	ILECR	HQ	% ILECR	% HQ	ILECR	HQ	% ILECR	% HQ
Tetrachloroethene (PCE)	6.5E-07	7.4E-03	100%	69%	2.4E-07	2.7E-03	100%	69%
Benzene	0.0E+00	0.0E+00	0%	0%	0.0E+00	0.0E+00		0%
Toluene	NA	1.4E-03		13%	NA	5.3E-04		13%
Xylenes (m-, p-)	NA	1.9E-03		18%	NA	7.0E-04		18%
TOTAL	7E-07	1E-02	100%	100%	2E-07	4E-03	100%	100%

Notes:

Exceeds Target ILCER (1E-06) or HQ of 1

ILECR = Individual lifetime excess cancer risk; HQ = Hazard quotient

**APPENDIX A
CERTIFIED ANALYTICAL REPORTS**



P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client:	Stantec, Inc.	Report date:	2/11/2014
Client Address:	25864-F Business Center Drive Redlands, CA 92374	JEL Ref. No.:	C-2172
		Client Ref. No.:	185803086
Attn:	Kristen Daly	Date Sampled:	2/11/2014
		Date Received:	2/11/2014
Project Name:	Tyler & Garvey	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB guidance documents. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval:

Steve Jones, Ph.D.
Laboratory Manager



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-3 1P	SV-3 3P	SV-3 10P	SV-5	SV-4	<u>Practical Quantitation Limit</u>	<u>Units</u>
<u>JEL ID:</u>	C-2172-01	C-2172-02	C-2172-03	C-2172-04	C-2172-05		
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-3 1P	SV-3 3P	SV-3 10P	SV-5	SV-4		
<u>JEL ID:</u>	C-2172-01	C-2172-02	C-2172-03	C-2172-04	C-2172-05	<u>Practical Quantitation</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.839	0.726	0.743	0.418	0.693	0.008	µg/L
Toluene	0.144	0.019	0.022	ND	0.021	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	101%	103%	101%	101%	95%	75 - 125	
Toluene-d ₈	100%	100%	100%	102%	100%	75 - 125	
4-Bromofluorobenzene	104%	110%	103%	103%	107%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-1	SV-6	SV-7	SV-7 REP	SV-22		
<u>JEL ID:</u>	C-2172-06	C-2172-07	C-2172-08	C-2172-09	C-2172-10	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV-1	SV-6	SV-7	SV-7 REP	SV-22		
JEL ID:	C-2172-06	C-2172-07	C-2172-08	C-2172-09	C-2172-10	Practical Quantitation	Units
Analytes:						Limit	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.894	0.025	0.354	0.271	0.280	0.008	µg/L
Toluene	0.055	0.143	0.052	0.025	0.407	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	0.214	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	93%	91%	103%	103%	104%	75 - 125	
Toluene-d ₈	105%	97%	100%	100%	101%	75 - 125	
4-Bromofluorobenzene	109%	104%	109%	101%	109%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-21	SV-12	SV-16	SV-20	SV-19		
<u>JEL ID:</u>	C-2172-11	C-2172-12	C-2172-13	C-2172-14	C-2172-15	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Limit</u>	
Benzene	ND	ND	ND	ND	0.010	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV-21	SV-12	SV-16	SV-20	SV-19		
JEL ID:	C-2172-11	C-2172-12	C-2172-13	C-2172-14	C-2172-15	Practical Quantitation	Units
Analytes:						Limit	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	0.220	2.54	0.971	0.044	0.519	0.008	µg/L
Toluene	ND	0.235	0.192	0.306	0.429	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	0.143	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.400	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.080	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	103%	105%	100%	97%	100%	75 - 125	
Toluene-d ₈	100%	100%	97%	100%	100%	75 - 125	
4-Bromofluorobenzene	105%	105%	107%	101%	107%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly
Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-8	SV-11		
<u>JEL ID:</u>	C-2172-16	C-2172-17	<u>Practical</u> <u>Quantitation</u>	<u>Units</u>
<u>Analytes:</u>			<u>Limit</u>	
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SV-8	SV-11		
<u>JEL ID:</u>	C-2172-16	C-2172-17	<u>Practical Quantitation Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	0.076	1.24	0.008	µg/L
Toluene	ND	0.023	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	0.045	0.008	µg/L
MTBE	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	0.400	µg/L
TIC:				
n-propanol	ND	ND	0.080	µg/L
n-pentane	ND	ND	0.008	µg/L
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	101%	103%	75 - 125	
Toluene-d ₈	99%	97%	75 - 125	
4-Bromofluorobenzene	109%	101%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
 Redlands, CA 92374

Report date: 2/11/2014
JEL Ref. No.: C-2172
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/11/2014
Date Received: 2/11/2014

Project: Tyler & Garvey
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Analyzed: 2/11/2014
Physical State: Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	<u>SAMPLING METHOD</u>		<u>Practical</u>	<u>Units</u>
	<u>BLANK</u>	<u>BLANK</u>		
<u>JEL ID:</u>	<u>C-2172-18</u>	<u>C-2172-19</u>	<u>Limit</u>	
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SAMPLING BLANK	METHOD BLANK		
<u>JEL ID:</u>	C-2172-18	C-2172-19	<u>Practical Quantitation</u>	<u>Units</u>
Analytes:			<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.040	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.040	µg/L
Ethyl-tert-butylether	ND	ND	0.040	µg/L
Di-isopropylether	ND	ND	0.040	µg/L
tert-amylmethylether	ND	ND	0.040	µg/L
tert-Butylalcohol	ND	ND	0.400	µg/L
<u>TIC:</u>				
n-propanol	ND	ND	0.080	µg/L
n-pentane	ND	ND	0.008	µg/L
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	107%	103%	75 - 125	
Toluene-d ₈	96%	103%	75 - 125	
4-Bromofluorobenzene	105%	103%	75 - 125	
	C1-021114- C-2172	C1-021114- C-2172		

ND= Not Detected



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/11/2014
Client Address:	25864-F Business Center Drive Redlands, CA 92374	JEL Ref. No.:	C-2172
		Client Ref. No.:	185803086
Attn:	Kristen Daly	Date Sampled:	2/11/2014
		Date Received:	2/11/2014
Project:	Tyler & Garvey	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked:	Ambient Air		GC#:	C1-021114-C-2172		
JEL ID:	C-2172-21	C-2172-22		C-2172-20		
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
Vinyl Chloride	87%	88%	1.2%	70-130	101%	70-130
1,1-Dichloroethylene	74%	84%	12%	70-130	74%	70-130
Cis-1,2-Dichloroethene	98%	105%	6.6%	70-130	109%	70-130
1,1,1-Trichloroethane	104%	99%	4.2%	70-130	104%	70-130
Benzene	98%	95%	2.4%	70-130	104%	70-130
Trichloroethylene	99%	100%	0.8%	70-130	106%	70-130
Toluene	95%	97%	1.8%	70-130	105%	70-130
Tetrachloroethene	106%	105%	1.1%	70-130	119%	70-130
Chlorobenzene	107%	104%	3.0%	70-130	118%	70-130
Ethylbenzene	102%	102%	0.0%	70-130	114%	70-130
1,2,4 Trimethylbenzene	94%	92%	2.4%	70-130	107%	70-130
Surrogate Recovery:						
Dibromofluoromethane	102%	101%		75-125	102%	75-125
Toluene-d ₈	101%	97%		75-125	99%	75-125
4-Bromofluorobenzene	107%	107%		75-125	107%	75-125

Method Blank = Not Detected

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

Chain-of-Custody Record

Client

Startec Inc

Date

02.11.14

SOIL GAS

Purge Number: 1P 3P 7P 10P

Purge Rate: 200 cc/min

Shut in Test: Y N

Tracer:

n-propanol

n-pentane

1,1-DFA

Helium

Analysis Requested

Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)

EPA 8260B (VOCs + XyS)

JEL Project #

C-2172

Page 1 of 2

Lab Use Only

Sample Condition as Received:

Chilled yes no

Sealed yes no

Remarks/Special Instructions

gas tight glass syringe

Magnehelic Vacuum (ln/H₂O)

Number of Containers

Sample Matrix:

Laboratory Sample Number

Sample Collection Time

Date

Purge Volume

Purge Number

Sample ID

Project Contact

Kristen Daly

EL Monte, CA

2818 Tyler Ave

Tyler & Grevey

Client Project #

185803086

Turn Around Requested:

Immediate Attention

Rush 24-48 Hours

Rush 72-96 Hours

Normal

Mobile Lab

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix	Analysis Requested	Magnehelic Vacuum (ln/H ₂ O)	Number of Containers	Remarks/Special Instructions	
SN3 1P	1	434	02/11	0818	0821	C-2172-01	Soil (S)	SG	<5	2	gas tight glass syringe	
SN3 3P	3	1301		0834	0838	C-2172-02	Soil (S)	SG	<5	2		
SN3 10P	10	4338		0850	0857	C-2172-03	Soil (S)	SG	<5	2		
SN5	1	434		0915	0920	C-2172-04	Soil (S)	SG	<5	2		
SN4	1	434		0940	0945	C-2172-05	Soil (S)	SG	<5	2		
SN2	1	434		0950	0958	C-2172-06	Soil (S)	SG	<5	2		
SN6	1	434		1015	1028	C-2172-07	Soil (S)	SG	<5	2		
SN7	1	434		1043	1047	C-2172-08	Soil (S)	SG	<5	2		
SN1 PER	1	434		1043	1102	C-2172-09	Soil (S)	SG	<5	2		
SN22	1	434		1118	1120	C-2172-10	Soil (S)	SG	<5	2		
Relinquished by (signature)			Date	Received by (signature)			Date	Total Number of Containers				
Kristen Daly			02/11/14	JMD			02/11/14					
Company			Time	Company			Time					
Startec				Jones Environmental								
Relinquished by (signature)			Date	Received by Laboratory (signature)			Date					
Startec				Jones Environmental								
Company			Time	Company			Time					

The delivery of samples and the signature on this Chain of Custody Form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Chain-of-Custody Record

Client: **Stantec Inc**

Date: **02/11/14**

SOIL GAS

Purge Number: 1P 3P 7P 10P
Purge Rate: **200** cc/min

Analysis Requested

Project Name: **Tyler of Brewery**

Client Project #: **185803086**

Shut in Test: Y N

Tracer:

Turn Around Requested:
 Immediate Attention
 Rush 24-48 Hours
 Rush 72-96 Hours
 Normal

n-propanol
 n-pentane
 1,1-DFA
 Helium

Sample Matrix:
Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)
EPA 8260B (VOCs+Oxyg)

Magnetic Vacuum (In/H₂O)
Number of Containers

Remarks/Special Instructions

JEL Project # **C-2172**
Page **2** of **2**
Lab Use Only
Sample Condition as Received:
Chilled yes no
Sealed yes no

Project Address: **2818 Tyler Ave**

EL Monte, CA

Project Contact: **Kristen Duly**

Mobile Lab

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Analysis Requested	Number of Containers	Remarks/Special Instructions
S121	1	434	02/11	1125	1139	C-2172-11	SG	2	gas tight glass syringe
S112	1	434	02/11	1147	1155	C-2172-12	SG	2	
S116	1	434	02/11	1148	1212	C-2172-13	SG	2	
S120	1	434	02/11	1224	1229	C-2172-14	SG	2	
S119	1	434	02/11	1226	1245	C-2172-15	SG	2	
S118	1	434	02/11	1501	1502	C-2172-16	SG	2	
S111	1	434	02/11	1524	1524	C-2172-17	SG	2	

1 Relinquished by (signature) **Madeline Baumbach** Date **02/11/14**

2 Received by (signature) **[Signature]** Date **02/11/14**

Company: **Stantec** Time: _____

Company: **Jones Environmental** Time: **1548**

3 Relinquished by (signature) _____ Date _____

4 Received by Laboratory (signature) _____ Date _____

Company _____ Time _____

Company _____ Time _____

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Total Number of Containers



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**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864-F Business Center Drive
Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kristen Daly

Date Sampled: 2/10-11/2014

Project Name: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
El Monte, CA

Date Received: 2/11/2014

Date Analyzed: 2/11-12/2014

Physical State: Soil

ANALYSES REQUESTED

- 1 EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)
- 2 EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Approval:

Steve Jones, Ph.D.
Laboratory Manager



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-1-10	SG-2-5	SB-3-5	SB-4-5	SB-5-5		
<u>JEL ID:</u>	ST-7315-02	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	111%	122%	83%	119%	80%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-6-5	SB-7-10	SB-21-15	SB-22-15	SB-12-5		
<u>JEL ID:</u>	ST-7315-11	ST-7315-13	ST-7315-15	ST-7315-19	ST-7315-21	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	117%	81%	79%	120%	79%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_2	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-16-5	SB-19-10	SB-20-15	SB-13-10	SB-14-10		
<u>JEL ID:</u>	ST-7315-22	ST-7315-24	ST-7315-28	ST-7315-30	ST-7315-33	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	96%	97%	100%	97%	100%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_1		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Attn: Kriten Daly

Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

<u>Sample ID:</u>	SB-15-10	SB-17-10	SB-18-10	SB-11-5	SB-8-5		
<u>JEL ID:</u>	ST-7315-36	ST-7315-39	ST-7315-42	ST-7315-44	ST-7315-45	<u>Practical Quantitation Limit</u>	<u>Units</u>
Carbon Chain Range							
C6 - C7	ND	ND	ND	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	ND	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C44+	ND	ND	ND	ND	ND	1.0	mg/kg
Total	ND	ND	ND	ND	ND		mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recovery:</u>						<u>QC Limits</u>	
Hexacosane	101%	96%	92%	89%	88%	65 - 125	
	ST-021214- CHECKS_1	ST-021214- CHECKS_1	ST-021214- CHECKS_2	ST-021214- CHECKS_1	ST-021214- CHECKS_2		

ND = Not Detected

C6 - C12	ND	ND	ND	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	ND	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 LABORATORY RESULTS**

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/12/2014
Physical State: Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample ID: SB-9-10 SB-10-10

JEL ID: ST-7315-47 ST-7315-50

Carbon Chain Range

			<u>Practical Quantitation Limit</u>	<u>Units</u>
C6 - C7	ND	ND	1.0	mg/kg
C8 - C9	ND	ND	1.0	mg/kg
C10 - C11	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	1.0	mg/kg
C44+	ND	ND	1.0	mg/kg
Total	ND	ND		mg/kg

Dilution Factor 1 1

Surrogate Recovery: Hexacosane 87% 80% QC Limits 65 - 125

ST-021214- ST-021214-
 CHECKS_2 CHECKS_2

ND = Not Detected

C6 - C12	ND	ND	5.0	mg/kg
C13 - C22	ND	ND	5.0	mg/kg
C23 - C32	ND	ND	5.0	mg/kg



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/12/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample Spiked:	CLEAN SOIL		GC#:	ST-021214-CHECKS_1		
JEL ID:	ST-7315-54	ST-7315-55		ST-7315-53		
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Diesel	99%	103%	4.3%	70-130	91%	85-115

Method Blank = Not Detected

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/12/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8015 - Extended Range Hydrocarbons (ASTM 2887)

Sample Spiked:	CLEAN SOIL		GC#:	ST-021214-CHECKS_2		
JEL ID:	ST-7315-58	ST-7315-59		ST-7315-57		
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Diesel	101%	96%	5.5%	70-130	105%	85-115

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-2-5	SB-3-5	SB-4-5	SB-5-5	SB-6-5	<u>Practical</u> <u>Quantitation</u> <u>Limit</u>	<u>Units</u>
<u>JEL ID:</u>	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	ST-7315-11		
Analytes:							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-2-5	SB-3-5	SB-4-5	SB-5-5	SB-6-5		
<u>JEL ID:</u>	ST-7315-03	ST-7315-05	ST-7315-07	ST-7315-09	ST-7315-11	<u>Practical</u>	<u>Units</u>
Analytes:						<u>Quantitation</u>	
						<u>Limit</u>	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	ND	ND	10.0	mg/kg
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>							<u>QC Limits</u>
Dibromofluoromethane	114%	109%	114%	113%	115%		60 - 140
Toluene-d ₈	103%	103%	100%	100%	95%		60 - 140
4-Bromofluorobenzene	98%	100%	102%	99%	103%		60 - 140
D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-21-15	SB-22-15	SB-12-5	SB-16-5	SB-19-5		
<u>JEL ID:</u>	ST-7315-15	ST-7315-19	ST-7315-21	ST-7315-22	ST-7315-23	<u>Practical</u>	<u>Units</u>
<u>Analytes:</u>						<u>Quantitation</u>	
						<u>Limit</u>	
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SB-21-15	SB-22-15	SB-12-5	SB-16-5	SB-19-5		
JEL ID:	ST-7315-15	ST-7315-19	ST-7315-21	ST-7315-22	ST-7315-23	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	2.07	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	ND	ND	10.0	mg/kg
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	115%	115%	110%	113%	115%	60 - 140	
Toluene-d ₈	101%	99%	103%	106%	97%	60 - 140	
4-Bromofluorobenzene	100%	100%	99%	106%	101%	60 - 140	
D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS	D1-021214-CHECKS		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Stantec, Inc.
Client Address: 25864 Business Center Drive, Suite F
 Redlands, CA 92374

Report date: 2/14/2014
JEL Ref. No.: ST-7315
Client Ref. No.: 185803086

Attn: Kriten Daly
Project: City Ventures - El Monte
Project Address: 2818 Tyler Ave.
 El Monte, CA

Date Sampled: 2/10-11/2014
Date Received: 2/11/2014
Date Analyzed: 2/11/2014
Physical State: Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID: SB-14-15 SB-11-5 SB-8-5
JEL ID: ST-7315-34 ST-7315-44 ST-7315-45

Analytes:				<u>Practical</u>	<u>Units</u>
				<u>Quantitation</u>	
				<u>Limit</u>	
Benzene	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SB-14-15	SB-11-5	SB-8-5		
<u>JEL ID:</u>	ST-7315-34	ST-7315-44	ST-7315-45		<u>Practical Quantitation Limit</u>
<u>Analytes:</u>					<u>Units</u>
cis-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	1.0	µg/kg
Freon 113	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
Tetrachloroethylene	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	1.0	µg/kg
Trichloroethylene	ND	ND	ND	1.0	µg/kg
Trichlorofluoromethane	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	1.0	µg/kg
Xylenes	ND	ND	ND	1.0	µg/kg
MTBE	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	50.0	µg/kg
Ethanol	ND	ND	ND	50.0	µg/kg
TPH Gasoline Range	ND	ND	ND	10.0	mg/kg
<u>Dilution Factor</u>	1	1	1		
<u>Surrogate Recoveries:</u>					<u>QC Limits</u>
Dibromofluoromethane	111%	115%	113%		60 - 140
Toluene-d ₈	101%	101%	104%		60 - 140
4-Bromofluorobenzene	98%	103%	108%		60 - 140
	D1-021214- CHECKS	D1-021214- CHECKS	D1-021214- CHECKS		

ND= Not Detected



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Stantec, Inc.	Report date:	2/12/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	185803086
Attn:	Kriten Daly	Date Sampled:	2/10 & 2/11
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	METHOD		
	BLANK		
<u>JEL ID:</u>	ST-7315-60	<u>Practical</u>	<u>Units</u>
Analytes:		<u>Quantitation</u>	
		<u>Limit</u>	
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
Dichlorodifluoromethane	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample ID:

METHOD
BLANK

JEL ID:

ST-7315-60

Analytes:

		<u>Practical</u>	<u>Units</u>
		<u>Quantitation</u>	
		<u>Limit</u>	
cis-1,3-Dichloropropene	ND	1.0	µg/kg
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 113	ND	5.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethylene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethylene	ND	1.0	µg/kg
Trichlorofluoromethane	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
Xylenes	ND	1.0	µg/kg
MTBE	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	5.0	µg/kg
Di-isopropylether	ND	5.0	µg/kg
tert-amylmethylether	ND	5.0	µg/kg
tert-Butylalcohol	ND	50.0	µg/kg
Ethanol	ND	50.0	µg/kg
TPH Gasoline Range	ND	10.0	mg/kg

Dilution Factor

1

Surrogate Recoveries:

Dibromofluoromethane	103%
Toluene-d ₈	103%
4-Bromofluorobenzene	98%

QC Limits

60 - 140
60 - 140
60 - 140

D1-021214-
CHECKS

ND= Not Detected



P.O. BOX 5387 | FULLERTON, CA 92838
 (714) 449-9937 | FAX (714) 449-9685

**JONES ENVIRONMENTAL
 QUALITY CONTROL INFORMATION**

Client:	Stantec, Inc.	Report date:	2/14/2014
Client Address:	25864 Business Center Drive, Suite F Redlands, CA 92374	JEL Ref. No.:	ST-7315
		Client Ref. No.:	_____
Attn:	Kriten Daly	Date Sampled:	2/10-11/2014
		Date Received:	2/11/2014
Project:	City Ventures - El Monte	Date Analyzed:	2/11/2014
Project Address:	2818 Tyler Ave. El Monte, CA	Physical State:	Soil

EPA 8260B by 5035-Volatile Organics by GC/MS + Oxygenates

Sample Spiked:	CLEAN SOIL		GC#: D1-021214-CHECKS			
JEL ID:	ST-7315-62	ST-7315-63	ST-7315-61			
<u>Parameter</u>	MS Recovery (%)	MSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>LCS</u>	Acceptability Range (%)
Vinyl Chloride	83%	96%	15%	70-130	113%	70-130
1,1-Dichloroethylene	81%	78%	3.4%	70-130	90%	70-130
Cis-1,2-Dichloroethene	142%	133%	6.5%	70-130	155%	70-130
1,1,1-Trichloroethane	146%	128%	13%	70-130	132%	70-130
Benzene	109%	103%	6.3%	70-130	113%	70-130
Trichloroethylene	109%	103%	5.6%	70-130	117%	70-130
Toluene	113%	110%	2.4%	70-130	120%	70-130
Tetrachloroethene	110%	107%	3.2%	70-130	122%	70-130
Chlorobenzene	115%	112%	3.0%	70-130	121%	70-130
Ethylbenzene	112%	108%	3.9%	70-130	120%	70-130
1,2,4 Trimethylbenzene	103%	100%	3.6%	70-130	115%	70-130
TPH Gasoline Range	116%	109%	5.8%	70-130		
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	103%	102%		75-125	101%	75-125
Toluene-d ₈	100%	101%		75-125	100%	75-125
4-Bromofluorobenzene	111%	111%		75-125	109%	75-125

Method Blank = Not Detected

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



Stantec

CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 9315

Client Name/Address: Stantec 25864 Business Center Drive Suite F Redlands, CA 92374			Project/PO Number: City Ventures - El Monte 1858 03086										
Project Manager: Kristen Daly			Phone Number: (909)335-6116										
Email Address: Kristen.Daly@stantec.com			Fax Number: (909)335-6120										
Sampler: M. Baerstein													
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	VOCs by EPA Method 8260B	TPH (to 1000 mg/L) BTEX & Organates by 8015M PCBs 8081	Title 22 Metals 6010/Mercury 7471	Analysis Required	Special Instructions		
SB-21-10	Soil	acetate liner	1	02/10/14	1455	ICE	X	X	X	X	HOLD		
SB-21-15					1520		X	X	X	X			
SB-21-20					1510		X	X	X	X			
SB-22-5					1355								
SB-22-10					1400								
SB-22-15					1405		X	X	X	X			
SB-22-20					1420		X	X	X	X			
SB-12-5				02/11/14	0805		X	X	X	X			
SB-16-5					0830		X	X	X	X			
SB-19-5					0845		X	X	X	X			
SB-19-10					0850								
SB-19-15					0855								
SB-20-5					0921								
SB-20-10	Soil	acetate liner	1	02/11/14	0930	ICE							
Relinquished By: <u>M. Baerstein</u>		Date/Time: 02/11/14		Received By: <u>SA</u>		Date/Time: 2/11/14		1600		Turnaround same day		Time: (Check) 5 days	
Relinquished By: <u>M. Baerstein</u>		Date/Time: 02/11/14		Received By: <u>SA</u>		Date/Time: 2/11/14		1600		Turnaround 24 hours		Time: (Check) normal	
Relinquished By: _____		Date/Time: _____		Received in Lab By: _____		Date/Time: _____		Sample Integrity: (Check) Intact		on ice _____			

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



Stantec

CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 7315

Client Name/Address: Stantec 25864 Business Center Drive Suite F Redlands, CA 92374			Project/PO Number: City Ventures - El Monte, CA 185803086			Phone Number: : (909)335-6116											
Project Manager: Kristen Daly			Fax Number: (909)335-6120			Email Address: Kristen.Daly@stantec.com											
Sampler: M. Baernstein			VOCs by EPA Method 8260B			TPH (carbon content) and oxygenates by 8015M											
Sample Description			Sample Matrix			Container Type											
# of Cont.			Sampling Date			Sampling Time											
Preservatives			VOCs			TPH											
Title 22 Metals 6010/Mercury 7471			PCBs 8081			Special Instructions											
SB-20-15	soil	acetate liner	1	02/11/14	0935	ICE											
SB-13-5					1226												
SB-13-10					1230												
SB-13-15					1234												
SB-14-5					1155												
SB-14-10					1200												
SB-14-15					1205												
SB-15-5					1115												
SB-15-10					1120												
SB-15-15					1125												
SB-17-5					1045												
SB-17-10					1050												
SB-17-15					1057												
SB-18-5	soil	acetate liner	1	02/11/14	1015	ICE											
Relinquished By: <u>M. Baernstein</u>			Date/Time: 02/11/14 1600			Received By: <u>[Signature]</u>			Date/Time: 2/11/14 1600			Turnaround: same day			Time: (Check) 5 days		
Relinquished By:			Date/Time:			Received By:			Date/Time:			Turnaround: 48 hours			Time: (Check) normal		
Relinquished By:			Date/Time:			Received in Lab By:			Date/Time:			Sample Integrity: (Check) intact			on ice		

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



CHAIN OF CUSTODY FORM

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

ST 7375

Client Name/Address: Stantec 25864 Business Center Drive Suite F Redlands, CA 92374			Project/PO Number: City Ventures - El Monte 185803086			Analysis Required			
Project Manager: Kristen Daly			Phone Number: (909)335-6116			VOCs by EPA Method 8260B			
Email Address: Kristen.Daly@stantec.com			Fax Number: (909)335-6120			TPH (carbon chain) + BTEX & oxygenates by 8015M			
Sampler: M. Bernstein						PCBs 8081			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Title 22 Metals 6010/Mercury 7471	HOLD	Special Instructions
SB-18-10	Soil	acetate liner	1	02/11/14	1020	FCE		X	
SB-18-15					1025			X	
SB-11-5					1340			X	
SB-8-5					1400			X	
SB-9-5					1425			X	
SB-9-10					1430			X	
SB-9-15					1433			X	
SB-10-5					1457			X	
SB-10-10					1503			X	
SB-10-15	Soil	acetate liner	1	02/11/14	1507	FCE		X	
Relinquished By: <u>M. Bernstein</u> Date/Time: <u>02/11/14 1600</u> Received By: <u>[Signature]</u> Date/Time: <u>2/11/14 1600</u> Turnaround same day Time: (Check) <u>5 days</u> Relinquished By: _____ Date/Time: _____ Received in Lab By: _____ Date/Time: _____ Sample Integrity: (Check) <u>normal</u> Relinquished By: _____ Date/Time: _____ Received in Lab By: _____ Date/Time: _____ Sample Integrity: (Check) <u>on ice</u>									

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

21 February 2014

Karen Prame
Jones Environmental
320 E Las Palmas Dr. / P.O. Box 5387
Fullerton, CA 92838
RE: City Ventures-El Monte

Enclosed are the results of analyses for samples received by the laboratory on 02/14/14 11:07. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Katherine RunningCrane
Project Manager

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
--	--	------------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-4-5	T140290-01	Soil	02/10/14 10:50	02/14/14 11:07

DETECTIONS SUMMARY

Sample ID: SB-4-5

Laboratory ID: T140290-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	95	1.0		mg/kg	EPA 6010B	
Chromium	13	2.0		mg/kg	EPA 6010B	
Cobalt	10	2.0		mg/kg	EPA 6010B	
Copper	21	1.0		mg/kg	EPA 6010B	
Lead	3.7	3.0		mg/kg	EPA 6010B	
Nickel	12	2.0		mg/kg	EPA 6010B	
Vanadium	31	5.0		mg/kg	EPA 6010B	
Zinc	43	1.0		mg/kg	EPA 6010B	

Katherine RunningCrane



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
--	--	-----------------------------

SB-4-5
T140290-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 6010B

Antimony	ND	3.0	mg/kg	1	4021417	02/14/14	02/17/14	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	95	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	13	2.0	"	"	"	"	"	"	
Cobalt	10	2.0	"	"	"	"	"	"	
Copper	21	1.0	"	"	"	"	"	"	
Lead	3.7	3.0	"	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	"	
Nickel	12	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	31	5.0	"	"	"	"	"	"	
Zinc	43	1.0	"	"	"	"	"	"	

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.10	mg/kg	1	4021403	02/14/14	02/17/14	EPA 7471A Soil	
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SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental
 320 E Las Palmas Dr. / P.O. Box 5387
 Fullerton CA, 92838

Project: City Ventures-El Monte
 Project Number: ST-7315
 Project Manager: Karen Prame

Reported:
 02/21/14 02:13

Metals by EPA 6010B - Quality Control
SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4021417 - EPA 3051

Blank (4021417-BLK1)

Prepared: 02/14/14 Analyzed: 02/17/14

Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							

LCS (4021417-BS1)

Prepared: 02/14/14 Analyzed: 02/17/14

Arsenic	103	5.0	mg/kg	100		103	75-125			
Barium	95.1	1.0	"	100		95.1	75-125			
Cadmium	95.5	2.0	"	100		95.5	75-125			
Chromium	94.8	2.0	"	100		94.8	75-125			
Lead	97.2	3.0	"	100		97.2	75-125			

Matrix Spike (4021417-MS1)

Source: T140281-01

Prepared: 02/14/14 Analyzed: 02/17/14

Arsenic	111	5.0	mg/kg	100	ND	111	75-125			
Barium	216	1.0	"	100	132	83.8	75-125			
Cadmium	109	2.0	"	100	0.156	109	75-125			
Chromium	225	2.0	"	100	89.8	135	75-125			QM-05
Lead	115	3.0	"	100	6.93	108	75-125			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager



25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
--	--	-----------------------------

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4021417 - EPA 3051

Matrix Spike Dup (4021417-MSD1)	Source: T140281-01			Prepared: 02/14/14		Analyzed: 02/17/14				
Arsenic	92.1	5.0	mg/kg	100	ND	92.1	75-125	19.0	20	
Barium	233	1.0	"	100	132	100	75-125	7.37	20	
Cadmium	92.3	2.0	"	100	0.156	92.1	75-125	16.6	20	
Chromium	178	2.0	"	100	89.8	88.1	75-125	23.2	20	QM-07
Lead	98.1	3.0	"	100	6.93	91.1	75-125	16.0	20	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

Jones Environmental 320 E Las Palmas Dr. / P.O. Box 5387 Fullerton CA, 92838	Project: City Ventures-El Monte Project Number: ST-7315 Project Manager: Karen Prame	Reported: 02/21/14 02:13
--	--	------------------------------------

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 4021403 - EPA 7471A Soil

Blank (4021403-BLK1)		Prepared: 02/14/14 Analyzed: 02/17/14								
Mercury	ND	0.10	mg/kg							
LCS (4021403-BS1)		Prepared: 02/14/14 Analyzed: 02/17/14								
Mercury	0.375	0.10	mg/kg	0.417		90.0	80-120			
Matrix Spike (4021403-MS1)		Source: T140276-01		Prepared: 02/14/14 Analyzed: 02/17/14						
Mercury	0.354	0.10	mg/kg	0.403	ND	87.8	75-125			
Matrix Spike Dup (4021403-MSD1)		Source: T140276-01		Prepared: 02/14/14 Analyzed: 02/17/14						
Mercury	0.363	0.10	mg/kg	0.410	ND	88.5	75-125	2.42	20	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Katherine RunningCrane

Katherine RunningCrane, Project Manager

Jones Environmental

320 E Las Palmas Dr. / P.O. Box 5387

Fullerton CA, 92838

Project: City Ventures-El Monte

Project Number: ST-7315

Project Manager: Karen Prame

Reported:

02/21/14 02:13

Notes and Definitions

- QM-07 The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Katherine RunningCrane



Stantec

CHAIN OF CUSTODY FORM

T140290

ST-7315

25864-F-Business Center Dr., Redlands, CA 92374 (909)335-6116, Fax (909) 335-6120

Page 1 of 4

Client Name/Address:		Project/PO Number:		Analysis Required							
Stantec 25864 Business Center Drive Suite F Redlands, CA 92374		City Ventures- E1 Monte 185803086		Special Instructions							
Project Manager: Kristen Daly		Phone Number: (909)335-6116		VOCs by EPA Method 8260B							
Email Address: Kristen.Daly@stantec.com		Fax Number: (909)335-6120		TPH (carbon chain) & PCBs 8015M PCBs 8081							
Sampler: M. Baerensstein				Title 22 Metals 6010/Mercury 7471 * Sunstar P/u 2/14 Normal TAT							
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required	Turnaround	Time		
SB-1-5	Soil	acetate liner	1	02/19/14	1005	ICE	ST-7315-01	no VOCs or TPH			
SB-1-10					1010						
SB-2-5					1213						
SB-2-10					1218						
SB-3-5					1145						
SB-3-10					1150						
SB-4-5					1050						
SB-4-10					1055						
SB-5-5					1117						
SB-5-10					1123						
SB-6-5					1323						
SB-7-5					1625						
SB-7-10					1610						
SB-7-15	Soil	acetate liner	1	02/19/14	1500	ICE					
Relinquished By: <i>M. Baerensstein</i>		Date/Time: 02/19/14 1600		Received By: <i>[Signature]</i>		Date/Time: 2/19/14 1600		Turnaround: same day		Time: 5 days	
Relinquished By: <i>Kristen Daly</i>		Date/Time: 2/19/14		Received In Lab By: <i>[Signature]</i>		Date/Time: 2/19/14 1107		Sample Integrity: (Check) Intact <input checked="" type="checkbox"/>		on ice <input checked="" type="checkbox"/> 5.0	

Note: By relinquishing samples, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

SAMPLE RECEIVING REVIEW SHEET

BATCH # TI40290

Client Name: Jones Environmental

Project: Stantec - City Ventures - El Monte

Received by: Jan M.

Date/Time Received: 2/14/14 1107

Delivered by : Client SunStar Courier GSO FedEx Other _____

Total number of coolers received 1 Temp criteria = 6°C > 0°C (no frozen containers)

Temperature: cooler #1 5.2 °C +/- the CF (- 0.2°C) = 5.0 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling. Yes No* N/A

Custody Seals Intact on Cooler/Sample Yes No* N/A

Sample Containers Intact Yes No*

Sample labels match COC ID's Yes No*

Total number of containers received match COC Yes No*

Proper containers received for analyses requested on COC Yes No*

Proper preservative indicated on COC/containers for analyses requested Yes No* N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. Yes No*

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date DM 2/14/14

Comments:

**APPENDIX B
CLIMATE DATA**

APPENDIX B

CLIMATE DATA SUMMARY FOR COVINA, CALIFORNIA
AND POMONA FAIRPLEX FOR TEMPERATURE DATA

**COVINA NIGG FC193B, CALIFORNIA
(042090)**

<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2090>

Period of Record Monthly Climate Summary

Period of Record : 10/1/1929 to 2/28/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	Insuff icient Data												
Average Min. Temperature (F)	Insuff icient Data												
Average Total Precipitation (in.)	3.78	3.93	2.88	1.27	0.32	0.10	0.03	0.10	0.33	0.74	1.62	2.99	18.08
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 0% Min. Temp.: 0% Precipitation: 97.7% Snowfall: 98.7% Snow Depth: 98.6%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

POMONA FAIRPLEX, CALIFORNIA (047050)

<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7050>

Period of Record Monthly Climate Summary

Period of Record : 11/1/1893 to 3/31/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	65.5	67.6	70.1	74.2	77.8	84.1	91.0	91.1	88.4	80.6	73.2	66.4	77.5
Average Min. Temperature (F)	38.1	40.3	42.3	45.6	50.0	53.4	57.7	58.1	55.3	49.8	42.6	38.4	47.6
Average Total Precipitation (in.)	3.56	3.49	2.82	1.22	0.35	0.10	0.01	0.07	0.26	0.78	1.56	2.77	16.97
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 99.1% Min. Temp.: 99% Precipitation: 99% Snowfall: 95.5% Snow Depth: 95.3%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

**APPENDIX C
BORING LOGS**



LOG OF BORING

Logged By: MAB	Date Drilled: 02/10/14	Drilling Contractor: Core Probe	Equipment/Method/Sample Type: Mule 4220 DPT	Boring ID: SB-1
Start Time: 0950	Boring Dia: 1 1/2"	Surface Elev: -	GW Depth (ft): N/A	Total Depth: 10'
End Time: 1025				Hammer Drop: N/A 140 Lbs.
Job No. 185803086	Project: CV		Location: EL Monte, CA	

WELL CONSTRUCTION	Depth Sampling Method	Sample Interval	Blow Counts	Graphic Log	Lithology Description Soil Type, USCS, Color (Munsell), Gradation, Consistency, Odors	FID - PID ppm	Comments	
ML		0			3" asphalt candy silt, ML, silty sand (light olive brown 2.5Y 5/4)			
		1			fine grained sand, ^{not plastic} loose , slightly moist, no staining, no odor	0.0		
		2						
		3						
		4						
		5					SB-1-5 1005	
		6	X			SAA... (Dark Brown 10YR 3/3)	0.0	SV-1 02/11/14 0950
		7						
		8						
		9						
SM		10			Silty sand (Olive brown 2.5Y 4/4), fine grained sand, loose, slightly moist, no staining, no odor.	0.0	SB-1-10 1010	
		11	X					
		12			TD=11' no \exists encountered			
		13						
		14						
		15						
		16						
		17						
		18						
		19						
		20						



LOG OF BORING

Logged By: MAB	Date Drilled: 02/10/14	Drilling Contractor: Core Probe	Equipment/Method/Sample Type: Mule 4220	Boring ID: SB-7
Start Time: 1605	Boring Dia: 1 1/2"	Surface Elev: -	GW Depth (ft): N/A	Total Depth: 16'
End Time: 1655				Hammer Drop: 140 Lbs. N/A
Job No. 185803086	Project: CV		Location: El Monte, CA	

WELL CONSTRUCTION	Depth/ Sampling Method	Sample Interval	Blow Counts	Graphic Log	Lithology Description Soil Type, USCS, Color (Munsell), Gradation, Consistency, Odors	FID - PID ppm	Comments
		0			SA SB-2	0.0	
		1					
		2					
		3					
		4					
		5				11.0	
		6	X		No recovery		SV-7 1043 02/11/14
		7					
		8					
		9					
		10					
SP		11	X		Sand, poorly graded, Olive Brown (2.5Y 4/3), fine to medium grained sands, loose, slightly moist, no staining, no odor	9.5	1025
		12					
		13					
		14					
SW		15	X		Sand, well graded, Olive Brown (2.5Y 4/3), fine to coarse grained sands, loose, slightly moist, no staining, no odor	5.1	1040
		16					
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LOG OF BORING

Logged By: NAB	Date Drilled: 02/11/14	Drilling Contractor: Core Probe	Equipment/Method/Sample Type: Mule 4220 DPT	Boring ID: SB-13
Start Time: 1218	Boring Dia: 1 1/2"	Surface Elev: —	GW Depth (ft): N/A	Total Depth: 16'
End Time: 1248				Hammer Drop: 140 Lbs. N/A
Job No. 185803086	Project: CV		Location: El Monte, CA	

WELL CONSTRUCTION	Depth/ Sampling Method	Sample Interval	Blow Counts	Graphic Log	Lithology Description Soil Type, USCS, Color (Munsell), Gradation, Consistency, Odors	FID - PID ppm	Comments
		0			6" concrete	0.0	
		1			SB-18		
		2					
		3					
		4					
		5					SB-13-5
		6	X		Silt, Olive Brown (2.5Y 4/4), soft, slightly moist, no staining, no odor	104	+026 1226
		7					
		8					
		9					
		10					
		11	X		Silt, Silt trace fine sands, Dark Olive Brown (2.5Y 3/3), soft, moist, no staining, no odor	3.4	SB-13-10 1230
		12					
		13					
		14					
		15					
		16	X		Dark Grayish Sand, poorly graded, Olive Brown (2.5Y 4/2), loose, slightly moist, no staining, no odor	47.3	SB-13-15 1234
		17					
		18					
		19					
		20			TD=16' no \bar{z} encountered		



LOG OF BORING

Logged By: MAB	Date Drilled: 02/11/14	Drilling Contractor: Core Probe	Equipment/Method/Sample Type: Mule 4220 DPT	Boring ID: SB-14
Start Time: 1150	Boring Dia: 1 1/2"	Surface Elev: -	GW Depth (ft): N/A	Total Depth: 16'
End Time: 1218				Hammer Drop: 140 Lbs. N/A
Job No. 185803080	Project: CV		Location: El Monte, CA	

WELL CONSTRUCTION	Depth/ Sampling Method	Sample Interval	Blow Counts	Graphic Log	Lithology Description Soil Type, USCS, Color (Munsell), Gradation, Consistency, Odors	FD - PID ppm	Comments	
		0			SA SB-18	0.4		
		1						
		2						
		3						
		4						
		5						
		6	X			SAA...	15.1	SB-14-5 1155
		7						
		8						
		9						
		10						
		11	X			SAA...	42.6	SB-14-10 1200
		12						
		13						
		14						
		15						
	16	X			Sand, poorly graded, Olive Brown (2.5Y 4/4), fine to medium grained sands, loose, slightly moist, no odor, no staining.	800	SB-14-15 1205	
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LOG OF BORING

Logged By: NAB	Date Drilled: 02/10/14	Drilling Contractor: CoreProbe	Equipment/Method/Sample Type: Mule 4220 DPT	Boring ID: SB-20
Start Time: 0920	Boring Dia: 1 1/2"	Surface Elev: -	GW Depth (ft): N/A	Total Depth: 16'
End Time: 0950				Hammer Drop: 140 Lbs. N/A
Job No. 185803086	Project: CV		Location: El Monte, CA	

WELL CONSTRUCTION	Depth/ Sampling Method	Sample Interval	Blow Counts	Graphic Log	Lithology Description Soil Type, USCS, Color (Munsell), Gradation, Consistency, Odors	FID - PID ppm	Comments	
	0				4" asphalt Silt, Dark Olive Brown (2.5Y 3/3) non-plastic, very soft, moist, no odor, no staining, asphalt fragments	10.0		
	1							
	2							
	3							
	4							
	5							
	6	X				SAA... no asphalt	360	SB-20-5 0927
	7							SV-20 1224
	8							
	9							
	10							
	11	X				Silty sand, Olive Brown (2.5Y 4/3) fine to medium grained sand, loose, slightly moist, no staining no odor	22.0	SB-20-10 0930
	12							
	13							
	14							
	15							
16	X				Sand, poorly graded, Olive Brown (2.5Y 4/3), fine to medium grained, loose slightly moist, no staining no odor	50.0	SB-20-15 0935	
17								
18								
19								
20					TD = 16', no ϵ encountered			

**APPENDIX D
RELEVANT JE MODELS**

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	894			Tetrachloroethylene
71432				Benzene
108883	55			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	($1/\text{h}$)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
2.1E-06	2.4E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.9E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.1E-06 2.4E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.94E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	5.50E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
---	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(\text{Pe}^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	8.94E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	8.60E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	5.50E+01	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	5.91E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	894			Tetrachloroethylene
71432				Benzene
108883	55			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	($1/\text{h}$)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
7.5E-07	8.5E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	7.2E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 7.5E-07 8.6E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.94E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	5.50E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
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15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	8.94E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	3.11E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	5.50E+01	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	2.25E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	839			Tetrachloroethylene
71432				Benzene
108883	144			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_a (cm)	Thickness of soil stratum B. (Enter value or 0) h_b (cm)	Thickness of soil stratum C. (Enter value or 0) h_c (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity.	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity.	ENTER Stratum B soil water-filled porosity.	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity.	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential.	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate. ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	ΔP ($\text{g}/\text{cm}^2\text{-s}^2$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	ER (1/h)	Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
2.0E-06	2.2E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	4.9E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.0E-06 2.3E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.39E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.44E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
---	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	8.39E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	8.07E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	1.44E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	1.55E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	839			Tetrachloroethylene
71432				Benzene
108883	144			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height, H_e	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	(cm)	(cm)		
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF (days/yr)
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
7.1E-07	8.0E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.9E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 7.1E-07 8.2E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.39E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.44E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_T^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	8.39E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	2.92E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	1.44E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	5.89E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	693			Tetrachloroethylene
71432				Benzene
108883	21			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil}
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	(1/h)	(L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.6E-06	1.8E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	7.2E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.6E-06 1.8E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	6.93E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.10E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	6.93E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	6.67E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	2.10E+01	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	2.26E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	693			Tetrachloroethylene
71432				Benzene
108883	21			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil}
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	(cm)	(cm)	(cm)	(cm)	(1/h)	(L/m^2)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
5.8E-07	6.6E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	2.7E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 5.8E-07 6.6E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	6.93E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.10E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	6.93E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	2.41E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	2.10E+01	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	8.58E-03	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _a (µg/m ³)	OR	ENTER Soil gas conc., C _a (ppmv)	Chemical
79016				Trichloroethylene
127184	418			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L _f (cm)	L _s (cm)	T _S (°C)	Thickness of soil stratum A. h _A (cm)	Thickness of soil stratum B. (Enter value or 0) h _B (cm)	Thickness of soil stratum C. (Enter value or 0) h _C (cm)		k _v (cm ² /s)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n ^A	ENTER Stratum A soil water-filled porosity, θ _w ^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n ^B	ENTER Stratum B soil water-filled porosity, θ _w ^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n ^C	ENTER Stratum C soil water-filled porosity, θ _w ^C
Lookup Soil Parameters	ρ _b ^A (g/cm ³)	n ^A (unitless)	θ _w ^A (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^B (g/cm ³)	n ^B (unitless)	θ _w ^B (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^C (g/cm ³)	n ^C (unitless)	θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil} (L/m)
L _{crack} (cm)	(g/cm ² -s ²)	L _b (cm)	W _b (cm)	H _b (cm)	w (cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	S

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT _C (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
9.7E-07	1.1E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 9.7E-07 1.1E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	4.18E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, $D_{eff,A}$ (cm^2/s)	Stratum B effective diffusion coefficient, $D_{eff,B}$ (cm^2/s)	Stratum C effective diffusion coefficient, $D_{eff,C}$ (cm^2/s)	Total overall effective diffusion coefficient, $D_{eff,T}$ (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	4.18E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	4.02E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _a (µg/m ³)	OR	ENTER Soil gas conc., C _a (ppmv)	Chemical
79016				Trichloroethylene
127184	418			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor. L _f (cm)	ENTER Soil gas sampling depth below grade. L _s (cm)	ENTER Average soil temperature. T _s (°C)	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability. k _v (cm ²)
Thickness of soil stratum A. h _A (cm)	Thickness of soil stratum B. (Enter value or 0) h _B (cm)	Thickness of soil stratum C. (Enter value or 0) h _C (cm)						
15.2	152.4	18.3	152.4	0		SI		

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ _b ^A (g/cm ³)	ENTER Stratum A soil total porosity, n ^A (unitless)	ENTER Stratum A soil water-filled porosity, θ _w ^A (cm ³ /cm ³)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ _b ^B (g/cm ³)	ENTER Stratum B soil total porosity, n ^B (unitless)	ENTER Stratum B soil water-filled porosity, θ _w ^B (cm ³ /cm ³)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ _b ^C (g/cm ³)	ENTER Stratum C soil total porosity, n ^C (unitless)	ENTER Stratum C soil water-filled porosity, θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness, L _{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s ²)	ENTER Enclosed space floor length, L _b (cm)	ENTER Enclosed space floor width, W _b (cm)	ENTER Enclosed space height, H _b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
3.5E-07	4.0E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 3.5E-07 4.0E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	4.18E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
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15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	4.18E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	1.45E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	25			Tetrachloroethylene
71432				Benzene
108883	143			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor. L_f (cm)	ENTER Soil gas sampling depth below grade. L_s (cm)	ENTER Average soil temperature. T_s ($^{\circ}\text{C}$)	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability. k_v (cm^2)
Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)						
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($\text{g}/\text{cm} \cdot \text{s}^2$)	ENTER Enclosed space floor length, L_b (cm)	ENTER Enclosed space floor width, W_b (cm)	ENTER Enclosed space height, H_b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
5.8E-08	6.6E-04	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	4.9E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 5.8E-08 1.2E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.50E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.43E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	2.50E+01	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	2.40E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	1.43E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	1.54E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	25			Tetrachloroethylene
71432				Benzene
108883	143			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential.	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate.	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	ΔP ($\text{g}/\text{cm}^2\text{-s}^2$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	ER (1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental
risk from
vapor
intrusion to
indoor air,
carcinogen
(unitless)

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

COPC

0.0E+00	0.0E+00	Trichloroethylene
2.1E-08	2.4E-04	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.9E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.1E-08 4.3E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.50E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.43E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	2.50E+01	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	8.70E-03	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	1.43E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	5.84E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _a (µg/m ³)	OR	ENTER Soil gas conc., C _a (ppmv)	Chemical
79016				Trichloroethylene
127184	354			Tetrachloroethylene
71432				Benzene
108883	52			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor. L _f (cm)	ENTER Soil gas sampling depth below grade. L _s (cm)	ENTER Average soil temperature. T _s (°C)	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability. k _v (cm ²)
Thickness of soil stratum A. h _A (cm)	Thickness of soil stratum B. (Enter value or 0) h _B (cm)	Thickness of soil stratum C. (Enter value or 0) h _C (cm)						
15.2	152.4	18.3	152.4	0	SI			
					Error	Error	Error	

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ _b ^A (g/cm ³)	ENTER Stratum A soil total porosity, n ^A (unitless)	ENTER Stratum A soil water-filled porosity, θ _w ^A (cm ³ /cm ³)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ _b ^B (g/cm ³)	ENTER Stratum B soil total porosity, n ^B (unitless)	ENTER Stratum B soil water-filled porosity, θ _w ^B (cm ³ /cm ³)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ _b ^C (g/cm ³)	ENTER Stratum C soil total porosity, n ^C (unitless)	ENTER Stratum C soil water-filled porosity, θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness, L _{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s ²)	ENTER Enclosed space floor length, L _b (cm)	ENTER Enclosed space floor width, W _b (cm)	ENTER Enclosed space height, H _b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	S

END

ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
8.3E-07	9.3E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.8E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 8.3E-07 9.5E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	3.54E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	5.20E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	3.54E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	3.41E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	5.20E+01	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	5.59E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	354			Tetrachloroethylene
71432				Benzene
108883	52			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
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ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
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ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height,	ENTER Floor-wall seam crack width,	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	($1/\text{h}$)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration,	ENTER Exposure frequency,
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
3.0E-07	3.4E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	6.8E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 3.0E-07 3.4E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	3.54E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	5.20E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_T^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	3.54E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	1.23E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	5.20E+01	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	2.13E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	76			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil}
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	(cm)	(cm)	(cm)	(cm)	(1/h)	(L/m^2)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental
risk from
vapor
intrusion to
indoor air,
carcinogen
(unitless)

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.8E-07	2.0E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.8E-07 2.0E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	7.60E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
---	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	7.60E+01	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	7.31E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	76			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil}
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	(cm)	(cm)	(cm)	(cm)	(1/h)	(L/m^2)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental
risk from
vapor
intrusion to
indoor air,
carcinogen
(unitless)

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

COPC

0.0E+00	0.0E+00	Trichloroethylene
6.4E-08	7.2E-04	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 6.4E-08 7.2E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	7.60E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	7.60E+01	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	2.64E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	1240			Tetrachloroethylene
71432				Benzene
108883	23			Toluene
100414				Ethylbenzene
108383	45			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L_f (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s ($^{\circ}\text{C}$)	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)			
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($\text{g}/\text{cm} \cdot \text{s}^2$)	ENTER Enclosed space floor length, L_b (cm)	ENTER Enclosed space floor width, W_b (cm)	ENTER Enclosed space height, H_b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental
risk from
vapor
intrusion to
indoor air,
carcinogen
(unitless)

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

COPC

0.0E+00	0.0E+00	Trichloroethylene
2.9E-06	3.3E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	7.9E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	4.1E-04	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.9E-06 3.3E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.24E+03	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.30E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	4.50E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	1.24E+03	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	1.19E+00	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	2.30E+01	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	2.47E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	4.50E+01	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	4.25E-02	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	1240			Tetrachloroethylene
71432				Benzene
108883	23			Toluene
100414				Ethylbenzene
108383	45			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil}
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	(cm)	(cm)	(cm)	(cm)	(1/h)	(L/m^2)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.0E-06	1.2E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	3.0E-05	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	1.5E-04	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.0E-06 1.2E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.24E+03	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.30E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	4.50E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_T^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
---	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	1.24E+03	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	4.32E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	2.30E+01	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	9.40E-03	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	4.50E+01	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	1.53E-02	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016	8			Trichloroethylene
127184	2540			Tetrachloroethylene
71432	8			Benzene
108883	235			Toluene
100414	8			Ethylbenzene
108383	8			m-Xylene
75014	8			Vinyl chloride (chloroethene)

MORE
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ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_a (cm)	Thickness of soil stratum B. (Enter value or 0) h_b (cm)	Thickness of soil stratum C. (Enter value or 0) h_c (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
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ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity.	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity.	ENTER Stratum B soil water-filled porosity.	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity.	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
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ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential.	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate.	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	ΔP ($\text{g}/\text{cm}^2\text{-s}^2$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	ER (1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_c (yrs)	AT_{nc} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

1.4E-08	3.9E-03	Trichloroethylene
5.9E-06	6.7E-02	Tetrachloroethylene
1.0E-07	2.8E-04	Benzene
NA	8.1E-04	Toluene
8.1E-09	7.6E-06	Ethylbenzene
NA	7.3E-05	m-Xylene
3.1E-07	9.2E-05	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 6.4E-06 7.2E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.54E+03	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.35E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, $D_{eff,A}$ (cm^2/s)	Stratum B effective diffusion coefficient, $D_{eff,B}$ (cm^2/s)	Stratum C effective diffusion coefficient, $D_{eff,C}$ (cm^2/s)	Total overall effective diffusion coefficient, $D_{eff,T}$ (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	8.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	8.13E-03	4.1E-06	2.0E-03
15.2	2.54E+03	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	2.44E+00	5.9E-06	3.5E-02
15.2	8.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	8.65E-03	2.9E-05	3.0E-02
15.2	2.35E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	2.53E-01	NA	3.0E-01
15.2	8.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	7.89E-03	2.5E-06	1.0E+00
15.2	8.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	7.56E-03	NA	1.0E-01
15.2	8.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	9.56E-03	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _a (µg/m ³)	OR	ENTER Soil gas conc., C _a (ppmv)	Chemical
79016	8			Trichloroethylene
127184	2540			Tetrachloroethylene
71432	8			Benzene
108883	235			Toluene
100414	8			Ethylbenzene
108383	8			m-Xylene
75014	8			Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L _f (cm)	L _s (cm)	T _S (°C)	Thickness of soil stratum A. h _A (cm)	Thickness of soil stratum B. (Enter value or 0) h _B (cm)	Thickness of soil stratum C. (Enter value or 0) h _C (cm)		k _v (cm ²)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity.	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity.	ENTER Stratum B soil water-filled porosity.	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity.	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ _b ^A (g/cm ³)	n ^A (unitless)	θ _w ^A (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^B (g/cm ³)	n ^B (unitless)	θ _w ^B (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^C (g/cm ³)	n ^C (unitless)	θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential.	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate.	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil}
L _{crack} (cm)	ΔP (g/cm-s ²)	L _b (cm)	W _b (cm)	H _b (cm)	w (cm)	ER (1/h)	Q _{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT _C (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental
risk from
vapor
intrusion to
indoor air,
carcinogen
(unitless)

Hazard
quotient
from vapor
intrusion to
indoor air,
noncarcinogen
(unitless)

COPC

5.1E-09	1.4E-03	Trichloroethylene
2.1E-06	2.4E-02	Tetrachloroethylene
3.9E-08	1.1E-04	Benzene
NA	3.1E-04	Toluene
3.0E-09	2.8E-06	Ethylbenzene
NA	2.6E-05	m-Xylene
1.2E-07	3.7E-05	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.3E-06 2.6E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.54E+03	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.35E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	8.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	8.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	3.01E-03	4.1E-06	2.0E-03
15.2	2.54E+03	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	8.84E-01	5.9E-06	3.5E-02
15.2	8.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	3.30E-03	2.9E-05	3.0E-02
15.2	2.35E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	9.60E-02	NA	3.0E-01
15.2	8.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	2.88E-03	2.5E-06	1.0E+00
15.2	8.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	2.72E-03	NA	1.0E-01
15.2	8.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	3.84E-03	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	971			Tetrachloroethylene
71432				Benzene
108883	192			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_a (cm)	Thickness of soil stratum B. (Enter value or 0) h_b (cm)	Thickness of soil stratum C. (Enter value or 0) h_c (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		
						Error	Error	

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	(cm)	(cm)	(cm)	(cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
2.3E-06	2.6E-02	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	6.6E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total	2.3E-06	2.6E-02
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MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

<p>SCROLL DOWN TO "END"</p>

<p>END</p>

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	9.71E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.92E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, $D_{eff,A}$ (cm ² /s)	Stratum B effective diffusion coefficient, $D_{eff,B}$ (cm ² /s)	Stratum C effective diffusion coefficient, $D_{eff,C}$ (cm ² /s)	Total overall effective diffusion coefficient, $D_{eff,T}$ (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
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15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	9.71E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	9.34E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	1.92E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	2.06E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	971			Tetrachloroethylene
71432				Benzene
108883	192			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential.	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate.	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	ΔP ($\text{g}/\text{cm}^2\text{-s}^2$)	L_b (cm)	W_b (cm)	H_b (cm)	w (cm)	ER (1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration.	ENTER Exposure frequency.
AT_C (yrs)	AT_{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
8.2E-07	9.3E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	2.5E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 8.2E-07 9.5E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	9.71E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.92E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	9.71E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	3.38E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	1.92E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	7.85E-02	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	519			Tetrachloroethylene
71432	10			Benzene
108883	429			Toluene
100414				Ethylbenzene
108383	143			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		
						Error	Error	

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height, H_e	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	L_b (cm)	W_b (cm)	(cm)	(cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.2E-06	1.4E-02	Tetrachloroethylene
1.3E-07	3.5E-04	Benzene
NA	1.5E-03	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	1.3E-03	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.3E-06 1.7E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	5.19E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.00E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	4.29E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	1.43E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	5.19E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	4.99E-01	5.9E-06	3.5E-02
15.2	1.00E+01	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	1.08E-02	2.9E-05	3.0E-02
15.2	4.29E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	4.61E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	1.43E+02	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	1.35E-01	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	519			Tetrachloroethylene
71432	10			Benzene
108883	429			Toluene
100414				Ethylbenzene
108383	143			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_A (cm)	Thickness of soil stratum B. (Enter value or 0) h_B (cm)	Thickness of soil stratum C. (Enter value or 0) h_C (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4		0	SI		
						Error	Error	

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity,	ENTER Stratum A soil water-filled porosity.	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity,	ENTER Stratum B soil water-filled porosity,	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity,	ENTER Stratum C soil water-filled porosity.
Lookup Soil Parameters	ρ_b^A (g/cm^3)	n^A (unitless)	θ_w^A (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	n^B (unitless)	θ_w^B (cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	n^C (unitless)	θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height, H_e	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}^2$)	L_b (cm)	W_b (cm)	(cm)	(cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
4.4E-07	4.9E-03	Tetrachloroethylene
4.9E-08	1.3E-04	Benzene
NA	5.6E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	4.7E-04	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 4.9E-07 6.1E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	5.19E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.00E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	4.29E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	1.43E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_T^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
---	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	5.19E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	1.81E-01	5.9E-06	3.5E-02
15.2	1.00E+01	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	4.13E-03	2.9E-05	3.0E-02
15.2	4.29E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	1.75E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	1.43E+02	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	4.86E-02	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
------	------	------	----------	------	----------	------	------	------	------	------

END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	44			Tetrachloroethylene
71432				Benzene
108883	306			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L_f (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s ($^{\circ}\text{C}$)	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
Thickness of soil stratum A, h_a (cm)	Thickness of soil stratum B, (Enter value or 0) h_b (cm)	Thickness of soil stratum C, (Enter value or 0) h_c (cm)						
15.2	152.4	18.3	152.4	0	SI			
					Error	Error	Error	

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($\text{g}/\text{cm} \cdot \text{s}^2$)	ENTER Enclosed space floor length, L_b (cm)	ENTER Enclosed space floor width, W_b (cm)	ENTER Enclosed space height, H_b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.0E-07	1.2E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.1E-03	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.0E-07 2.2E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	4.40E+01	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	3.06E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	4.40E+01	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	4.23E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	3.06E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	3.29E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _a (µg/m ³)	OR	ENTER Soil gas conc., C _a (ppmv)	Chemical
79016				Trichloroethylene
127184	44			Tetrachloroethylene
71432				Benzene
108883	306			Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L _f (cm)	L _s (cm)	T _S (°C)	Thickness of soil stratum A. h _A (cm)	Thickness of soil stratum B. (Enter value or 0) h _B (cm)	Thickness of soil stratum C. (Enter value or 0) h _C (cm)		k _v (cm ² /s)	
15.2	152.4	18.3	152.4		0	SI		
						Error	Error	

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n ^A	ENTER Stratum A soil water-filled porosity, θ _w ^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n ^B	ENTER Stratum B soil water-filled porosity, θ _w ^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n ^C	ENTER Stratum C soil water-filled porosity, θ _w ^C
Lookup Soil Parameters	ρ _b ^A (g/cm ³)	n ^A (unitless)	θ _w ^A (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^B (g/cm ³)	n ^B (unitless)	θ _w ^B (cm ³ /cm ³)	Lookup Soil Parameters	ρ _b ^C (g/cm ³)	n ^C (unitless)	θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length.	ENTER Enclosed space floor width.	ENTER Enclosed space height.	ENTER Floor-wall seam crack width.	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil} (L/m)
L _{crack} (cm)	(g/cm ² -s ²)	L _b (cm)	W _b (cm)	H _b (cm)	w (cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT _C (yrs)	AT _{NC} (yrs)	ED (yrs)	EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)
 Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)

COPC

0.0E+00	0.0E+00	Trichloroethylene
3.7E-08	4.2E-04	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	4.0E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 3.7E-08 8.2E-04

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

SCROLL
DOWN
TO "END"

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	4.40E+01	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	3.06E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_T^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
--	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	4.40E+01	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	1.53E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	3.06E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	1.25E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	220			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor.	ENTER Soil gas sampling depth below grade.	ENTER Average soil temperature.	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability.
L_f (cm)	L_s (cm)	T_s ($^{\circ}\text{C}$)	Thickness of soil stratum A. h_a (cm)	Thickness of soil stratum B. (Enter value or 0) h_b (cm)	Thickness of soil stratum C. (Enter value or 0) h_c (cm)		k_v (cm^2)	
15.2	152.4	18.3	152.4	0		SI		
						Error	Error	

MORE
↓

ENTER Stratum A SCS soil type	ENTER Stratum A soil dry bulk density.	ENTER Stratum A soil total porosity, n^A	ENTER Stratum A soil water-filled porosity, θ_w^A	ENTER Stratum B SCS soil type	ENTER Stratum B soil dry bulk density.	ENTER Stratum B soil total porosity, n^B	ENTER Stratum B soil water-filled porosity, θ_w^B	ENTER Stratum C SCS soil type	ENTER Stratum C soil dry bulk density.	ENTER Stratum C soil total porosity, n^C	ENTER Stratum C soil water-filled porosity, θ_w^C
Lookup Soil Parameters	ρ_b^A (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^B (g/cm^3)	(unitless)	(cm^3/cm^3)	Lookup Soil Parameters	ρ_b^C (g/cm^3)	(unitless)	(cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness.	ENTER Soil-bldg. pressure differential, ΔP	ENTER Enclosed space floor length, L_b	ENTER Enclosed space floor width, W_b	ENTER Enclosed space height, H_b	ENTER Floor-wall seam crack width, w	ENTER Indoor air exchange rate, ER	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
L_{crack} (cm)	($\text{g}/\text{cm}^2\text{-s}$)	(cm)	(cm)	(cm)	(cm)	(1/h)	
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens.	ENTER Averaging time for noncarcinogens.	ENTER Exposure duration, ED	ENTER Exposure frequency, EF
AT_C (yrs)	AT_{NC} (yrs)	(yrs)	(days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
5.1E-07	5.8E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 5.1E-07 5.8E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{Te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{ra} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.20E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D_{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m ³)
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15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	2.20E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	2.12E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	220			Tetrachloroethylene
71432				Benzene
108883				Toluene
100414				Ethylbenzene
108383				m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L_f (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s ($^{\circ}\text{C}$)	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
Thickness of soil stratum A, h_A (cm)	Thickness of soil stratum B, (Enter value or 0) h_B (cm)	Thickness of soil stratum C, (Enter value or 0) h_C (cm)						
15.2	152.4	18.3	152.4	0	SI			
					Error	Error	Error	

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($\text{g}/\text{cm} \cdot \text{s}^2$)	ENTER Enclosed space floor length, L_b (cm)	ENTER Enclosed space floor width, W_b (cm)	ENTER Enclosed space height, H_b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
--	--

COPC

0.0E+00	0.0E+00	Trichloroethylene
1.9E-07	2.1E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	0.0E+00	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	0.0E+00	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 1.9E-07 2.1E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.20E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
--	--	---	--	---	---	---	---	---	---	---	-----------------------------------

1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	2.20E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	7.66E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	0.00E+00	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	0.00E+00	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	0.00E+00	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	0.00E+00	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1: 02/04

Reset to

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_a ($\mu\text{g}/\text{m}^3$)	OR	ENTER Soil gas conc., C_a (ppmv)	Chemical
79016				Trichloroethylene
127184	280			Tetrachloroethylene
71432				Benzene
108883	407			Toluene
100414				Ethylbenzene
108383	214			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L_f (cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_s ($^{\circ}\text{C}$)	ENTER Totals must add up to value of L_s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k_v (cm^2)
Thickness of soil stratum A, h_a (cm)	Thickness of soil stratum B, (Enter value or 0) h_b (cm)	Thickness of soil stratum C, (Enter value or 0) h_c (cm)						
15.2	152.4	18.3	152.4	0	SI			
					Error	Error	Error	

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil	ENTER Stratum A soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Stratum A soil total porosity, n^A (unitless)	ENTER Stratum A soil water-filled porosity, θ_w^A (cm^3/cm^3)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ_b^B (g/cm^3)	ENTER Stratum B soil total porosity, n^B (unitless)	ENTER Stratum B soil water-filled porosity, θ_w^B (cm^3/cm^3)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ_b^C (g/cm^3)	ENTER Stratum C soil total porosity, n^C (unitless)	ENTER Stratum C soil water-filled porosity, θ_w^C (cm^3/cm^3)
SI	1.35	0.489	0.167								

MORE
↓

ENTER Enclosed space floor thickness, L_{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP ($\text{g}/\text{cm}^2\text{-s}^2$)	ENTER Enclosed space floor length, L_b (cm)	ENTER Enclosed space floor width, W_b (cm)	ENTER Enclosed space height, H_b (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q_{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

END

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
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COPC

0.0E+00	0.0E+00	Trichloroethylene
6.5E-07	7.4E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	1.4E-03	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	1.9E-03	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 6.5E-07 1.1E-02

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm ³ /cm ³)	Stratum B soil air-filled porosity, θ_a^B (cm ³ /cm ³)	Stratum C soil air-filled porosity, θ_a^C (cm ³ /cm ³)	Stratum A effective total fluid saturation, S_{Te} (cm ³ /cm ³)	Stratum A soil intrinsic permeability, k_i (cm ²)	Stratum A soil relative air permeability, k_{ra} (cm ²)	Stratum A soil effective vapor permeability, k_v (cm ²)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. (µg/m ³)	Bldg. ventilation rate, $Q_{building}$ (cm ³ /s)
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.80E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	4.07E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	2.14E+02	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.322	ERROR	ERROR	0.267	6.84E-09	0.830	5.68E-09	4,000	#N/A	3.39E+04

Area of enclosed space below grade, A_B (cm ²)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m ³ /mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_{A}^{eff} (cm ² /s)	Stratum B effective diffusion coefficient, D_{B}^{eff} (cm ² /s)	Stratum C effective diffusion coefficient, D_{C}^{eff} (cm ² /s)	Total overall effective diffusion coefficient, D_{T}^{eff} (cm ² /s)	Diffusion path length, L_d (cm)
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1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	7.59E-03	0.00E+00	0.00E+00	7.59E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	6.92E-03	0.00E+00	0.00E+00	6.92E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	8.45E-03	0.00E+00	0.00E+00	8.45E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	8.36E-03	0.00E+00	0.00E+00	8.36E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	7.20E-03	0.00E+00	0.00E+00	7.20E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	6.72E-03	0.00E+00	0.00E+00	6.72E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	1.02E-02	0.00E+00	0.00E+00	1.02E-02	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} (µg/m ³)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm ³ /s)	Crack effective diffusion coefficient, D_{crack} (cm ² /s)	Area of crack, A_{crack} (cm ²)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ (µg/m ³)	Unit risk factor, URF (µg/m ³) ⁻¹	Reference conc., RfC (mg/m ³)
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15.2	0.00E+00	0.10	8.33E+01	7.59E-03	4.00E+02	1.67E+119	1.02E-03	0.00E+00	4.1E-06	2.0E-03
15.2	2.80E+02	0.10	8.33E+01	6.92E-03	4.00E+02	6.53E+130	9.62E-04	2.69E-01	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	8.45E-03	4.00E+02	1.06E+107	1.08E-03	0.00E+00	2.9E-05	3.0E-02
15.2	4.07E+02	0.10	8.33E+01	8.36E-03	4.00E+02	1.81E+108	1.07E-03	4.37E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	7.20E-03	4.00E+02	3.79E+125	9.86E-04	0.00E+00	2.5E-06	1.0E+00
15.2	2.14E+02	0.10	8.33E+01	6.72E-03	4.00E+02	3.53E+134	9.46E-04	2.02E-01	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.02E-02	4.00E+02	7.18E+88	1.20E-03	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

INTERMEDIATE CALCULATIONS SHEET

15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
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END

SG-ADV
Version 3.1; 02/04

Reset to
Defaults

Soil Gas Concentration Data				
ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C _g (µg/m ³)	OR	ENTER Soil gas conc., C _g (ppmv)	Chemical
79016				Trichloroethylene
127184	280			Tetrachloroethylene
71432				Benzene
108883	407			Toluene
100414				Ethylbenzene
108383	214			m-Xylene
75014				Vinyl chloride (chloroethene)

MORE
↓

ENTER Depth below grade to bottom of enclosed space floor, L _F (cm)	ENTER Soil gas sampling depth below grade, L _S (cm)	ENTER Average soil temperature, T _S (°C)	ENTER Totals must add up to value of L _s (cell F24)			ENTER Soil stratum A SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined stratum A soil vapor permeability, k _v (cm ²)
Thickness of soil stratum A, h _A (cm)	Thickness of soil stratum B, (Enter value or 0) h _B (cm)	Thickness of soil stratum C, (Enter value or 0) h _C (cm)						
15.2	152.4	18.3	152.4		0	SI		
					Error	Error	Error	

MORE
↓

ENTER Stratum A SCS soil type Lookup Soil Parameters	ENTER Stratum A soil dry bulk density, ρ _b ^A (g/cm ³)	ENTER Stratum A soil total porosity, n ^A (unitless)	ENTER Stratum A soil water-filled porosity, θ _w ^A (cm ³ /cm ³)	ENTER Stratum B SCS soil type Lookup Soil Parameters	ENTER Stratum B soil dry bulk density, ρ _b ^B (g/cm ³)	ENTER Stratum B soil total porosity, n ^B (unitless)	ENTER Stratum B soil water-filled porosity, θ _w ^B (cm ³ /cm ³)	ENTER Stratum C SCS soil type Lookup Soil Parameters	ENTER Stratum C soil dry bulk density, ρ _b ^C (g/cm ³)	ENTER Stratum C soil total porosity, n ^C (unitless)	ENTER Stratum C soil water-filled porosity, θ _w ^C (cm ³ /cm ³)
SI	1.35	0.489	0.275								

MORE
↓

ENTER Enclosed space floor thickness, L _{crack} (cm)	ENTER Soil-bldg. pressure differential, ΔP (g/cm-s ²)	ENTER Enclosed space floor length, L _B (cm)	ENTER Enclosed space floor width, W _B (cm)	ENTER Enclosed space height, H _B (cm)	ENTER Floor-wall seam crack width, w (cm)	ENTER Indoor air exchange rate, ER (1/h)	ENTER Average vapor flow rate into bldg. OR Leave blank to calculate Q _{soil} (L/m)
10	40	1000	1000	243.8	0.1	0.5	5

ENTER Averaging time for carcinogens, AT _C (yrs)	ENTER Averaging time for noncarcinogens, AT _{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	COPC
0.0E+00	0.0E+00	Trichloroethylene
2.4E-07	2.7E-03	Tetrachloroethylene
0.0E+00	0.0E+00	Benzene
NA	5.3E-04	Toluene
0.0E+00	0.0E+00	Ethylbenzene
NA	7.0E-04	m-Xylene
0.0E+00	0.0E+00	Vinyl chloride (chloroethene)
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00
ERROR	ERROR	0.00E+00

Total 2.4E-07 3.9E-03

MESSAGE AND ERROR SUMMARY BELOW: (DO NOT USE RESULTS IF ERRORS ARE PRESENT)

**SCROLL
DOWN
TO "END"**

END

INTERMEDIATE CALCULATIONS SHEET

Exposure duration, τ (sec)	Source-building separation, L_T (cm)	Stratum A soil air-filled porosity, θ_a^A (cm^3/cm^3)	Stratum B soil air-filled porosity, θ_a^B (cm^3/cm^3)	Stratum C soil air-filled porosity, θ_a^C (cm^3/cm^3)	Stratum A effective total fluid saturation, S_{te} (cm^3/cm^3)	Stratum A soil intrinsic permeability, k_i (cm^2)	Stratum A soil relative air permeability, k_{rq} (cm^2)	Stratum A soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu\text{g}/\text{m}^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.80E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	4.07E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	2.14E+02	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	0.00E+00	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04
9.46E+08	137.2	0.214	ERROR	ERROR	0.513	6.84E-09	0.588	4.02E-09	4,000	#N/A	3.39E+04

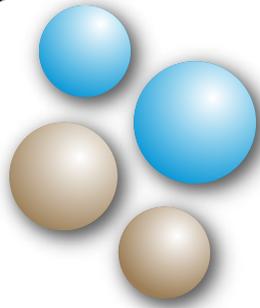
Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} ($\text{atm}\cdot\text{m}^3/\text{mol}$)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Stratum A effective diffusion coefficient, D_A^{eff} (cm^2/s)	Stratum B effective diffusion coefficient, D_B^{eff} (cm^2/s)	Stratum C effective diffusion coefficient, D_C^{eff} (cm^2/s)	Total overall effective diffusion coefficient, D_T^{eff} (cm^2/s)	Diffusion path length, L_d (cm)
1.06E+06	3.77E-04	15.2	8,454	7.40E-03	3.09E-01	1.78E-04	1.95E-03	0.00E+00	0.00E+00	1.95E-03	137.2
1.06E+06	3.77E-04	15.2	9,469	1.27E-02	5.31E-01	1.78E-04	1.78E-03	0.00E+00	0.00E+00	1.78E-03	137.2
1.06E+06	3.77E-04	15.2	8,037	4.05E-03	1.69E-01	1.78E-04	2.17E-03	0.00E+00	0.00E+00	2.17E-03	137.2
1.06E+06	3.77E-04	15.2	9,064	4.66E-03	1.95E-01	1.78E-04	2.15E-03	0.00E+00	0.00E+00	2.15E-03	137.2
1.06E+06	3.77E-04	15.2	10,060	5.32E-03	2.22E-01	1.78E-04	1.85E-03	0.00E+00	0.00E+00	1.85E-03	137.2
1.06E+06	3.77E-04	15.2	10,158	4.94E-03	2.06E-01	1.78E-04	1.73E-03	0.00E+00	0.00E+00	1.73E-03	137.2
1.06E+06	3.77E-04	15.2	4,906	2.23E-02	9.31E-01	1.78E-04	2.61E-03	0.00E+00	0.00E+00	2.61E-03	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2
1.06E+06	3.77E-04	15.2	#N/A	#N/A	#N/A	1.78E-04	#N/A	0.00E+00	0.00E+00	#N/A	137.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu\text{g}/\text{m}^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(\text{Pe}^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu\text{g}/\text{m}^3$)	Unit risk factor, URF ($\mu\text{g}/\text{m}^3$) ⁻¹	Reference conc., RfC (mg/m^3)
15.2	0.00E+00	0.10	8.33E+01	1.95E-03	4.00E+02	#NUM!	3.77E-04	0.00E+00	4.1E-06	2.0E-03
15.2	2.80E+02	0.10	8.33E+01	1.78E-03	4.00E+02	#NUM!	3.48E-04	9.74E-02	5.9E-06	3.5E-02
15.2	0.00E+00	0.10	8.33E+01	2.17E-03	4.00E+02	#NUM!	4.13E-04	0.00E+00	2.9E-05	3.0E-02
15.2	4.07E+02	0.10	8.33E+01	2.15E-03	4.00E+02	#NUM!	4.09E-04	1.66E-01	NA	3.0E-01
15.2	0.00E+00	0.10	8.33E+01	1.85E-03	4.00E+02	#NUM!	3.61E-04	0.00E+00	2.5E-06	1.0E+00
15.2	2.14E+02	0.10	8.33E+01	1.73E-03	4.00E+02	#NUM!	3.40E-04	7.27E-02	NA	1.0E-01
15.2	0.00E+00	0.10	8.33E+01	2.61E-03	4.00E+02	#NUM!	4.80E-04	0.00E+00	7.8E-05	1.0E-01
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A
15.2	#N/A	0.10	8.33E+01	#N/A	4.00E+02	#N/A	#N/A	#N/A	#N/A	#N/A

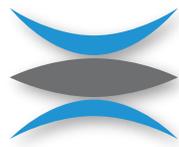
INTERMEDIATE CALCULATIONS SHEET

END

APPENDIX D
SAMPLE VAPOR BARRIER SPECIFICATIONS



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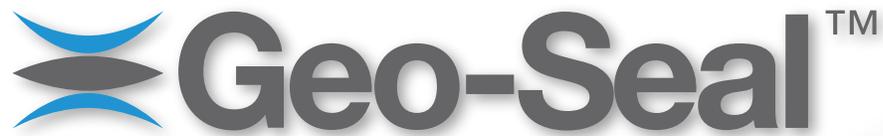
Land Science Technologies (LST)™ is dedicated to providing advanced technologies for sustainable land development. A goal of LST is to provide innovative and technically sound development solutions for underutilized environmentally impaired properties, commonly referred to as Brownfields.

LST's cost-effective, industry leading technologies offer engineering firms and real estate developers solutions to issues facing the development of Brownfields today. LST is a division of *Regenesis, Inc.*, a global leader in groundwater and soil remediation technologies since 1994.



REGENESIS

www.regenesis.com



Geo-Seal™

Geo-Seal™ is an advanced composite gas vapor management technology (patent pending) designed to eliminate potential indoor air quality health risks associated with subsurface contaminant vapor intrusion.

Geo-Seal is an ideal gas vapor management technology designed for use on Brownfields or any type of environmentally impaired site, i.e. manufacturing facilities, dry cleaners, gasoline service stations, landfills, etc. *Geo-Seal* is placed between the foundation of the building and the soil pad to eliminate vapor exposure pathways and stop contaminated vapors from permeating through the slab. Vapor management systems incorporating both *Geo-Seal* vapor barrier and *Vapor-Vent* ventilation provide industry leading sub-foundation vapor mitigation technology. By deploying these systems developers ensure a healthy indoor environment while reducing the cost of site remediation and expediting site construction.

Triple-Layer Protection

The triple-layer system used in *Geo-Seal* provides maximum redundancy and protection against the formation of vapor pathways both during and after installation. Such pathways can result from chemically induced materials breakdown, punctures, and seam weaknesses resulting from poor detail work and/or application installation imperfections around penetrations. *Geo-Seal* also provides unmatched protection from a range of contaminant vapors including those from petroleum-based products and chlorinated hydrocarbons.

Field-Proven Technology

Geo-Seal is manufactured in partnership with E-Pro™ Systems which has over 20 years experience in the building products industry and a leading track record in barrier systems for vapor and waterproofing applications.

FEATURES

Geo-Seal™ Triple-Layer System (2 Chemical Resistant Layers + 1 Spray Applied Core Layer)

Dual Chemical Resistant Layers

The **BASE** layer (bottom) and the **BOND** layer (top) are composed of a high-density polyethylene material bonded to a geo-textile on the out-facing side. High density polyethylene is known for chemical resistance, high tensile strength, excellent stress-crack resistance and for highly reliable subsurface containment. The geo-textile which is physically bonded to the chemical resistant layer accomplishes two goals; it allows the BOND layer to adhere to slab, and provides a friction course between the BASE layer and the soil.

Spray Applied CORE Layer

The CORE layer is composed of a unique, elastic co-polymer modified asphaltic membrane which also provides additional protection against vapor transmission. This layer creates a highly-effective seal around slab penetrations and eliminates the need for mechanical fastening at termination points.

Chemical Resistance

The dual chemical resistant layers combined with the spray CORE form a barrier resistant to the most concentrated chemical pollutant vapors.

Enhanced Curing

Geo-Seal is “construction friendly” as the reduced curing time of the **Geo-Seal** CORE layer and the ability to apply it in cooler temperatures ensures quick installation and minimizes the impact on construction schedules.

Puncture Resistance

Geo-Seal forms a highly puncture resistant barrier that greatly reduces the chance of damage occurring after installation and prior to the placement of concrete.

Removing Contained Vapors

Vapor-Vent can be used in conjunction with **Geo-Seal** to alleviate the buildup of vapors beneath structures as a result of vapor barrier implementation. **Vapor-Vent** can be utilized as an active or passive ventilation system depending on the requirements of the design engineer.

Certified Applicator Network

The application of **Geo-Seal** and **Vapor-Vent** can be performed by any one of many certified applicators throughout the country.

Service and Support

Geo-Seal representatives are available to provide job and site specific assistance. A local representative can ensure **Geo-Seal** and **Vapor-Vent** is installed as per the specification.

Geo-Seal™ Application Diagram

Diagram Labels

1 **Geo-Seal BASE** is the foundational, chemical resistant, bottom layer that is rolled out onto the exposed soil surface. This layer is applied with a geo-textile side facing down to provide greater friction with the soil surface. The Geo-Seal BASE Layer is a high-quality substrate and enables the second, spray-applied **CORE Layer** to be free of shadowing and pinholes.

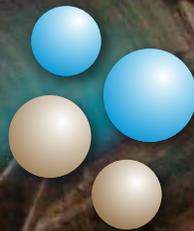
2 **Geo-Seal CORE** is the spray-applied, middle layer of the Geo-Seal barrier that ensures proper sealing of potential vapor pathways. Problematic pipe penetrations and effective seals at termination points are easily detailed and sealed with the utilization of the **CORE Layer**.

3 **Geo-Seal BOND** is the proprietary top layer that completes the triple layered Geo-Seal barrier. The **BOND layer** serves two purposes; it helps protect the system from getting punctured after installation and provides the final layer of chemical resistance.

4 Vapor-Vent:

- When used with Geo-Seal provides maximum protection against contaminated vapor
- Eliminates the need for trenching
- Cost-effective compared to pipe and gravel systems
- Eliminates long-term costs when configured as a passive system
- Allows for rapid installation





Land Science[™]
Technologies

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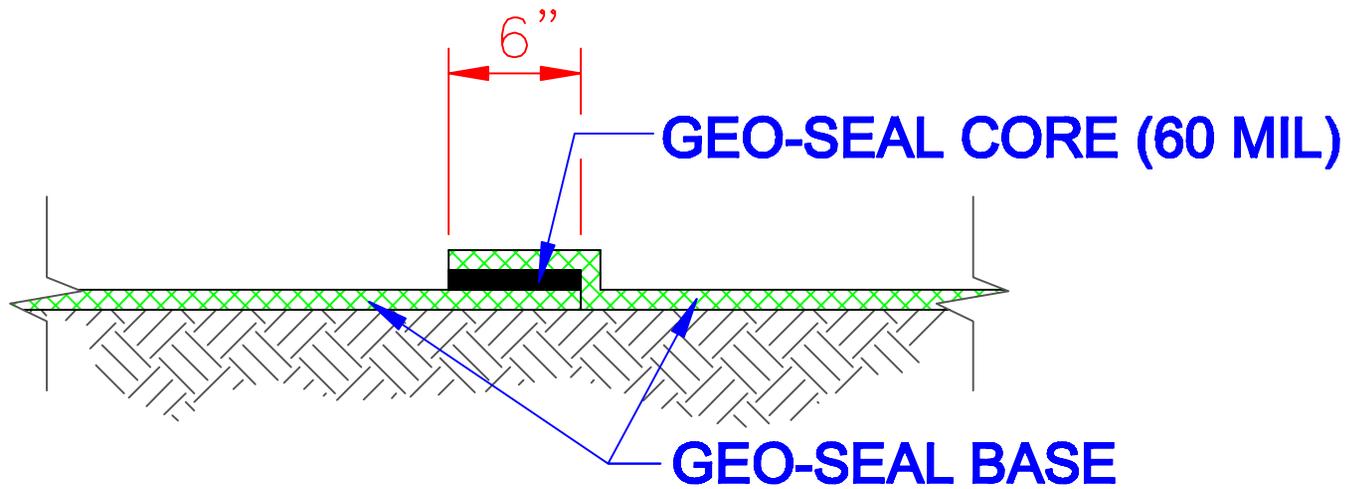
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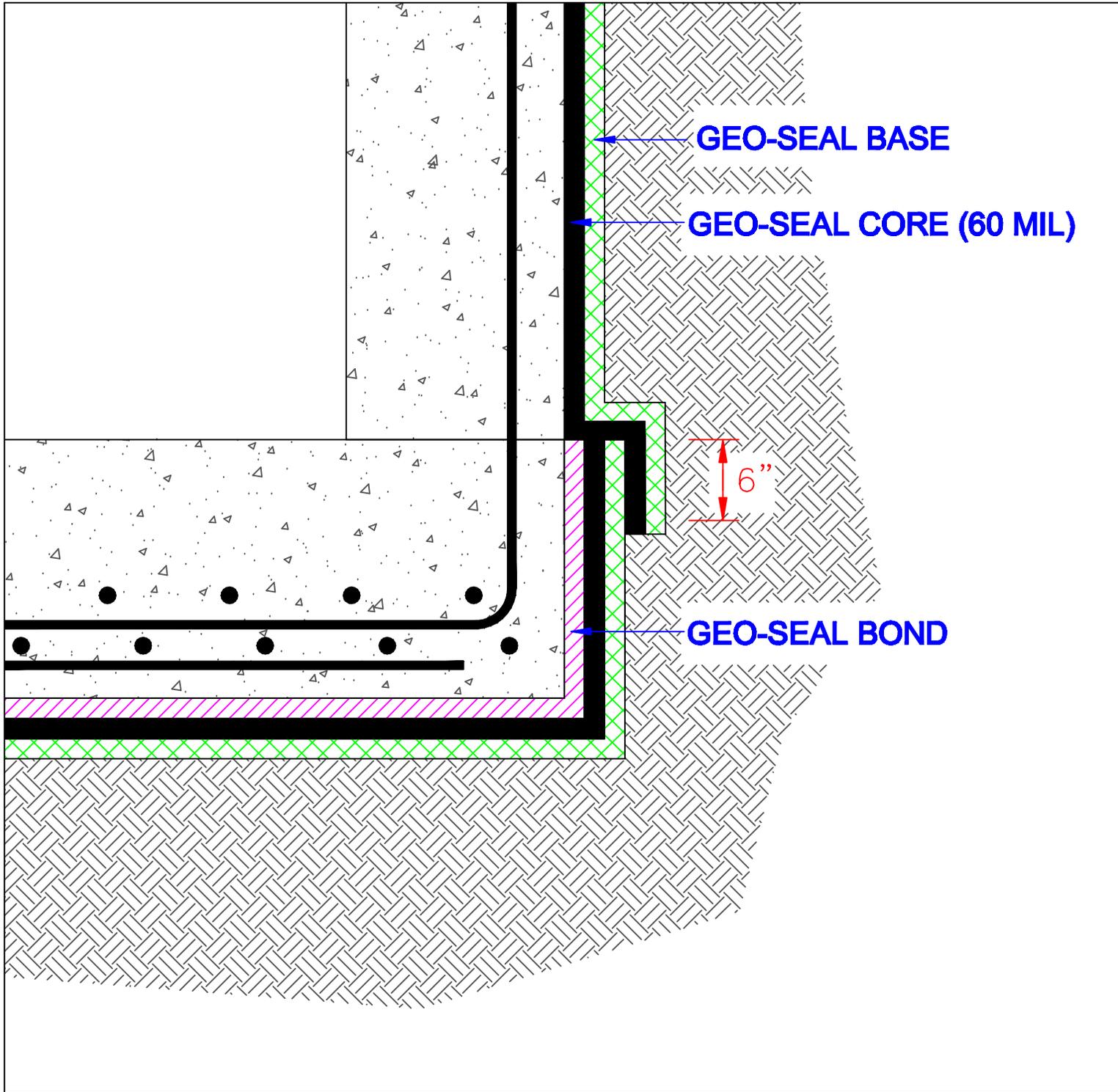


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**BASE OVERLAP
DETAIL**





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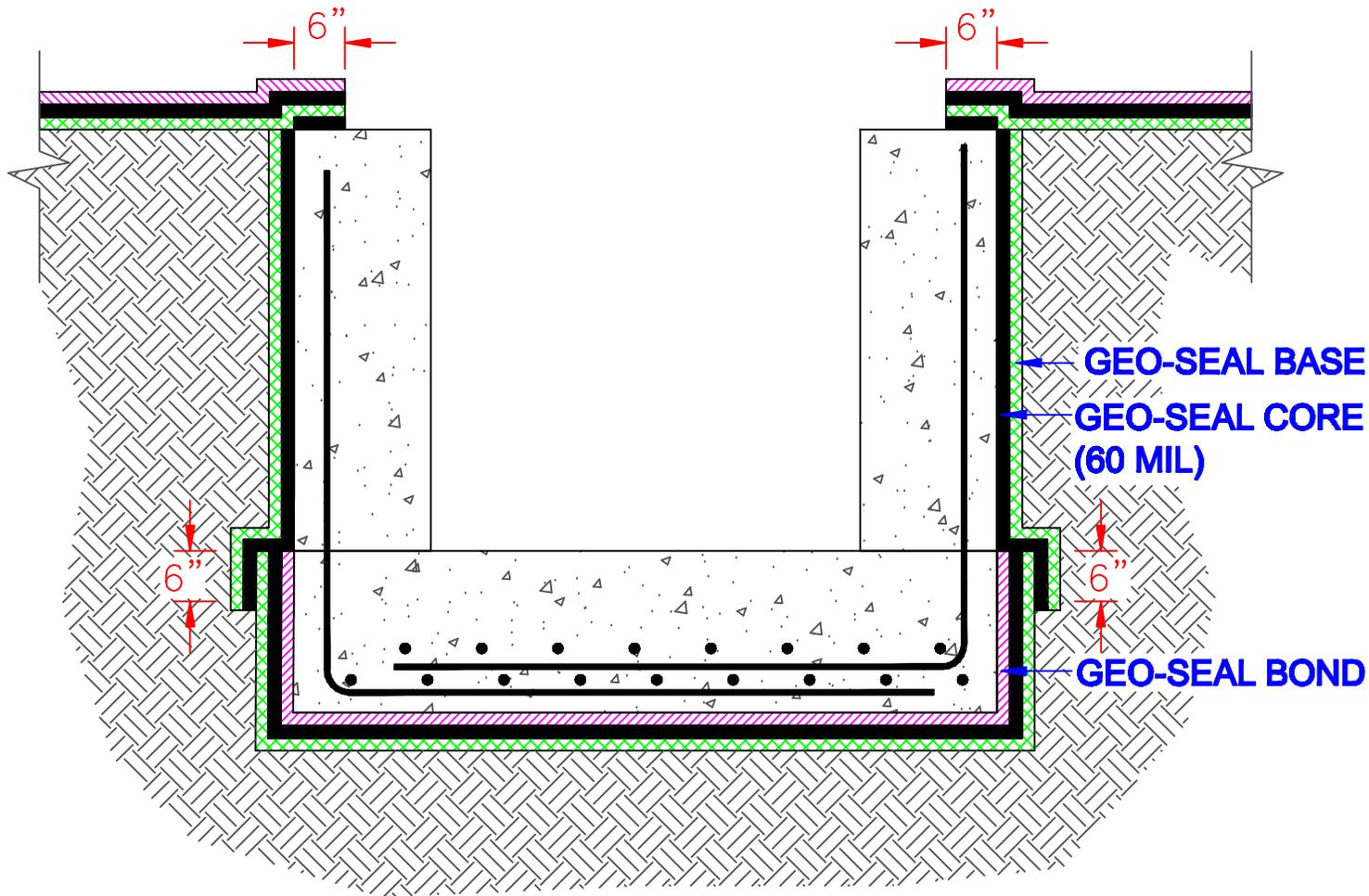
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**BELOW GRADE
OVERLAP DETAIL**



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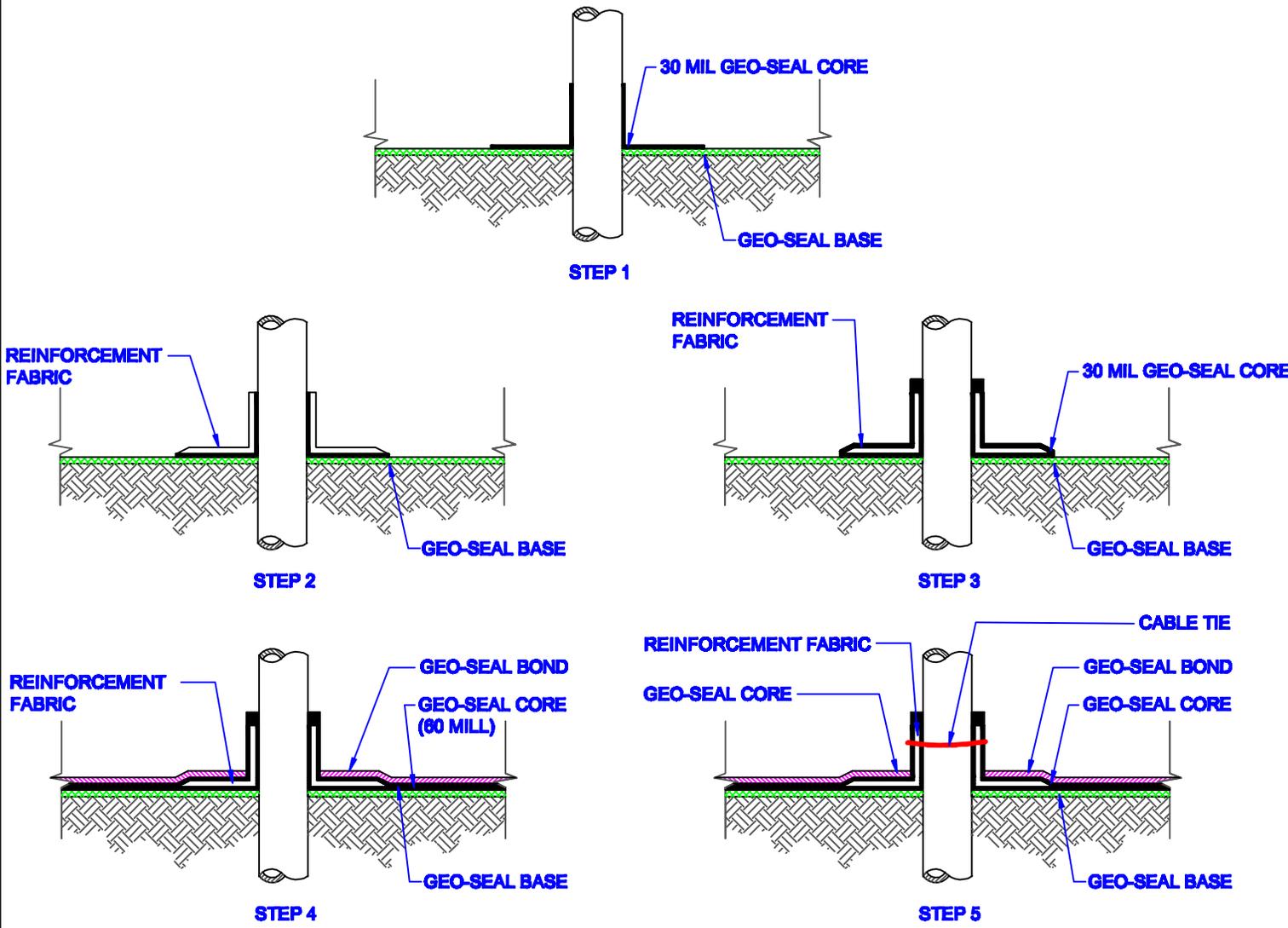
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**ELEVATOR PIT
DETAIL**



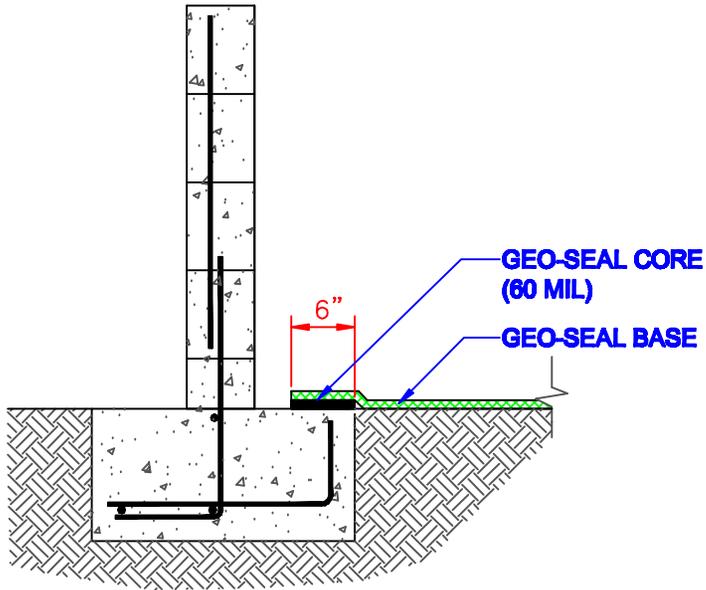
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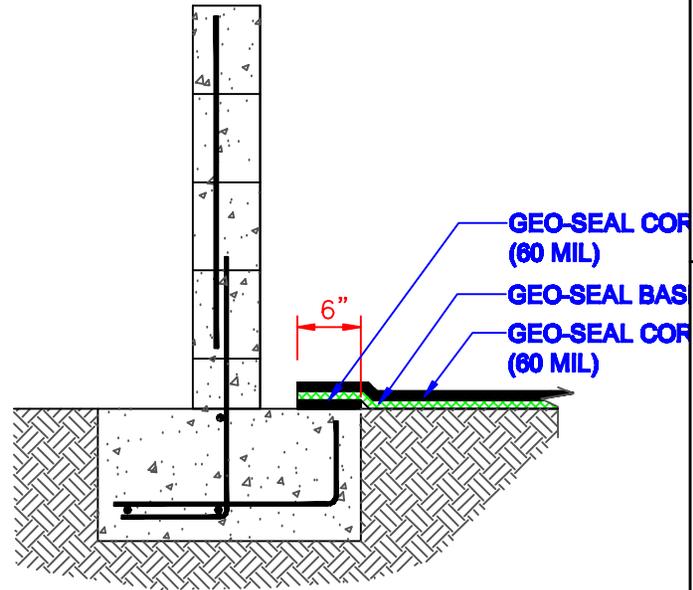
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**PENETRATION
SEQUENCE**

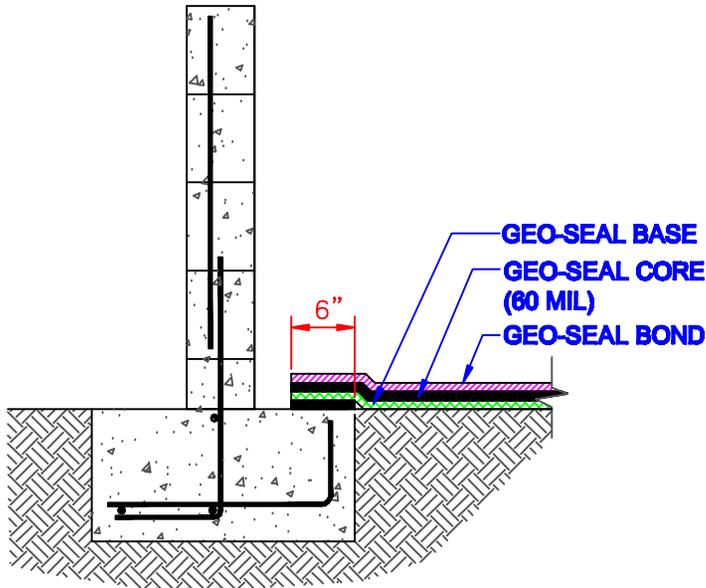
STEP 1



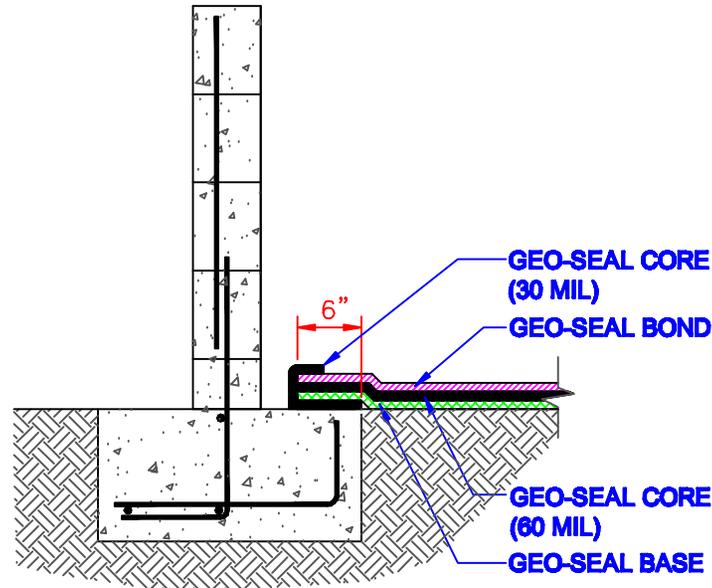
STEP 2



STEP 3



STEP 4



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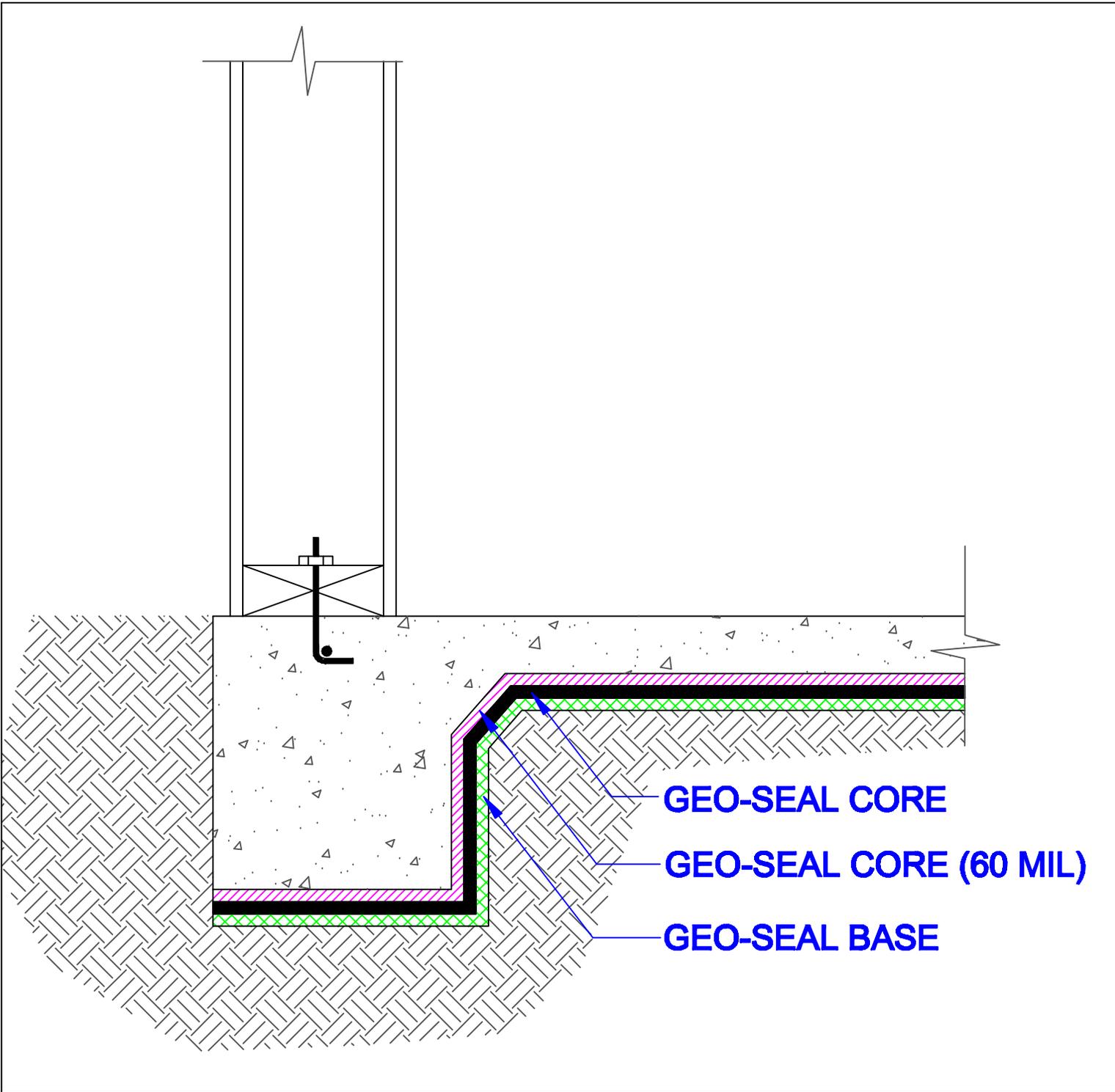
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**TERMINATION
SEQUENCE**



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**UNDER FOOTING
DETAIL**



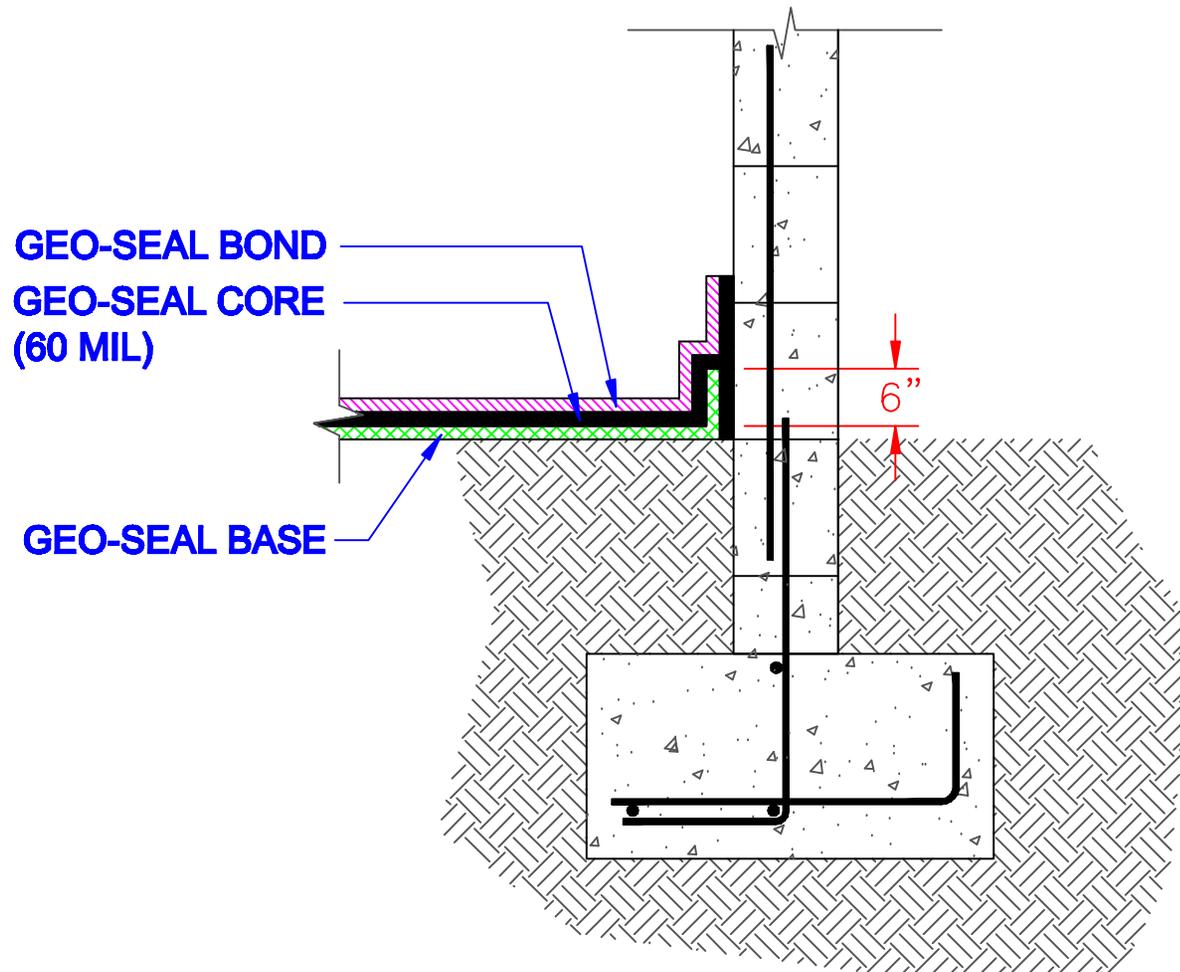
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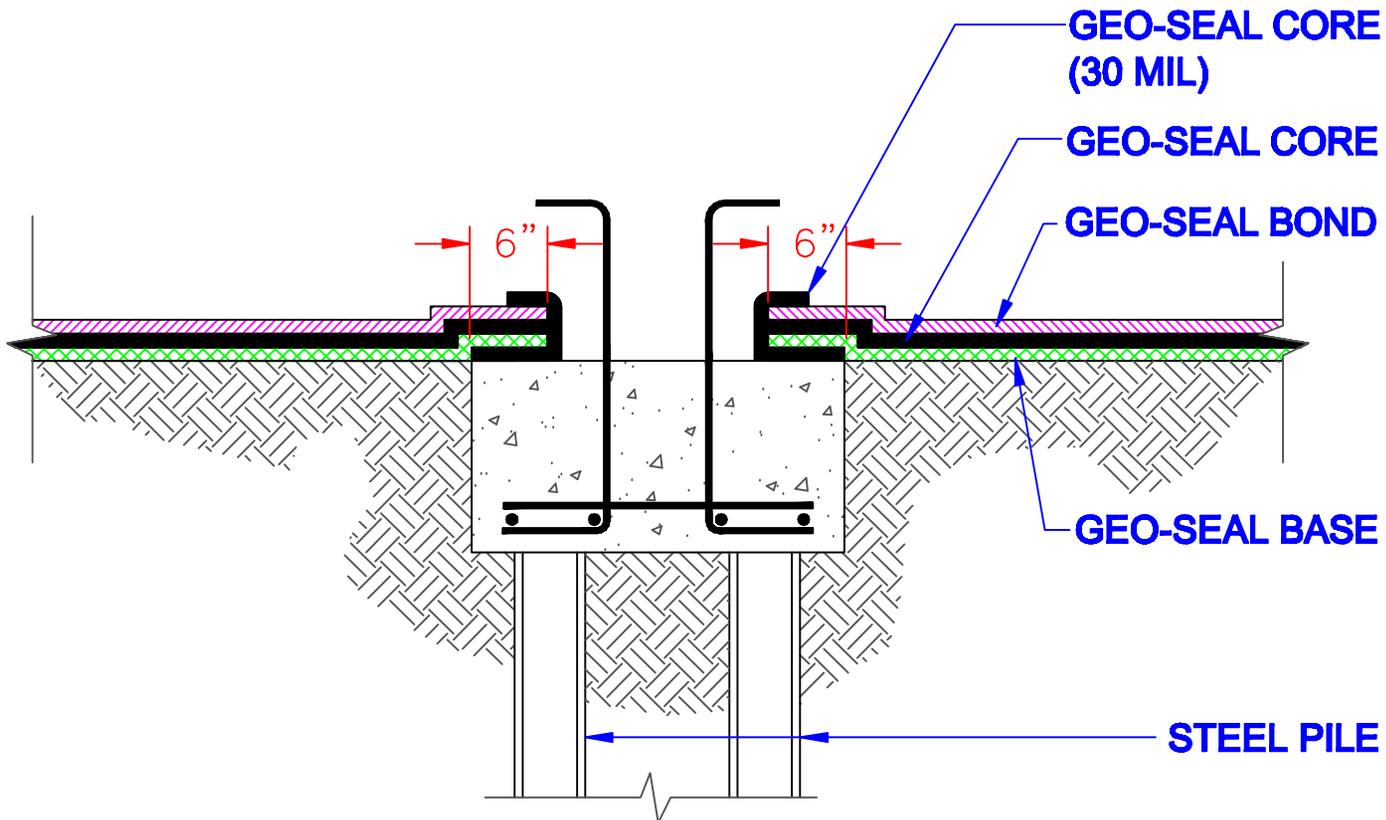
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**VERTICAL
TERMINATION DETAIL**





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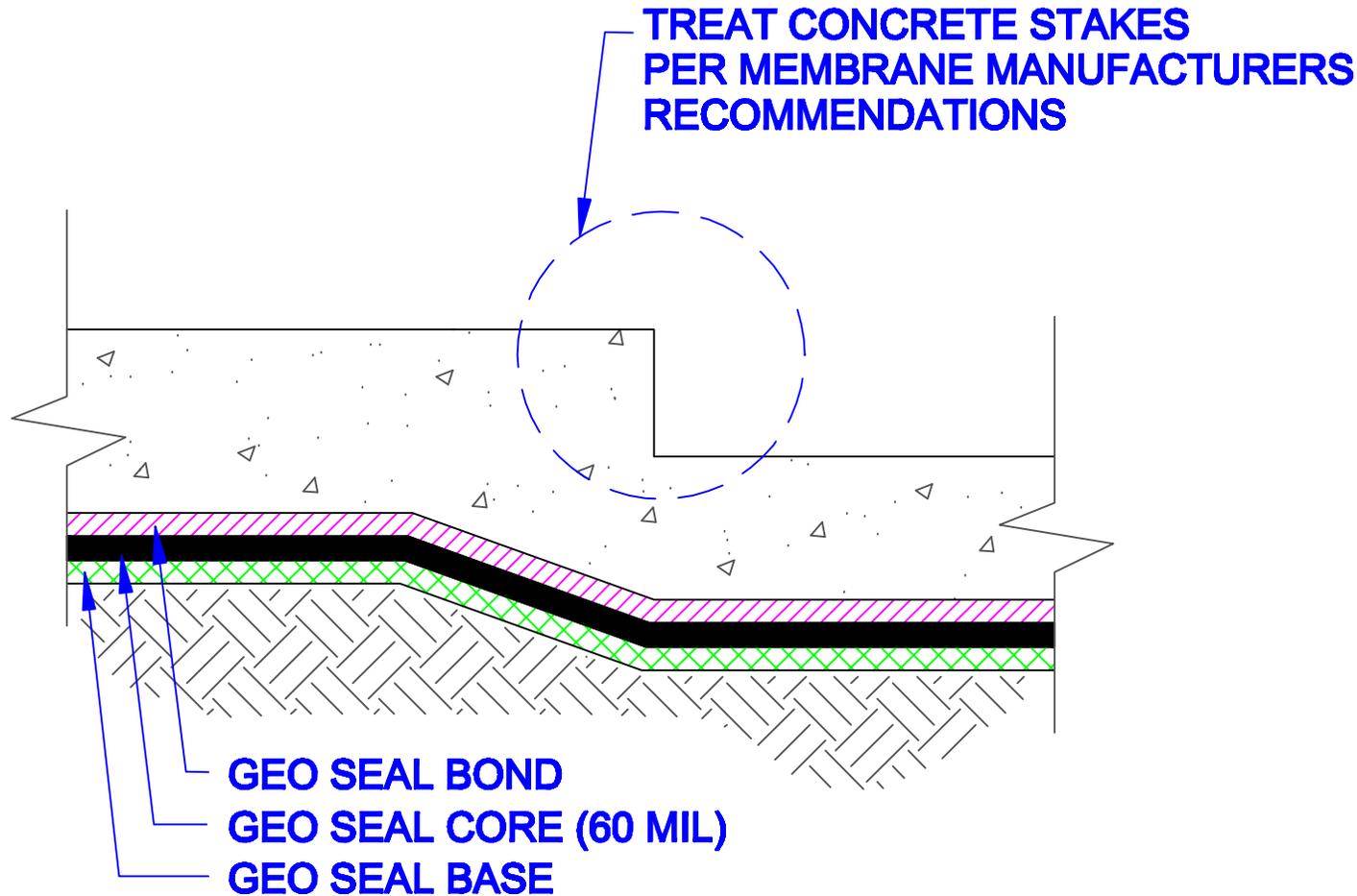
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PILE CAP DETAIL



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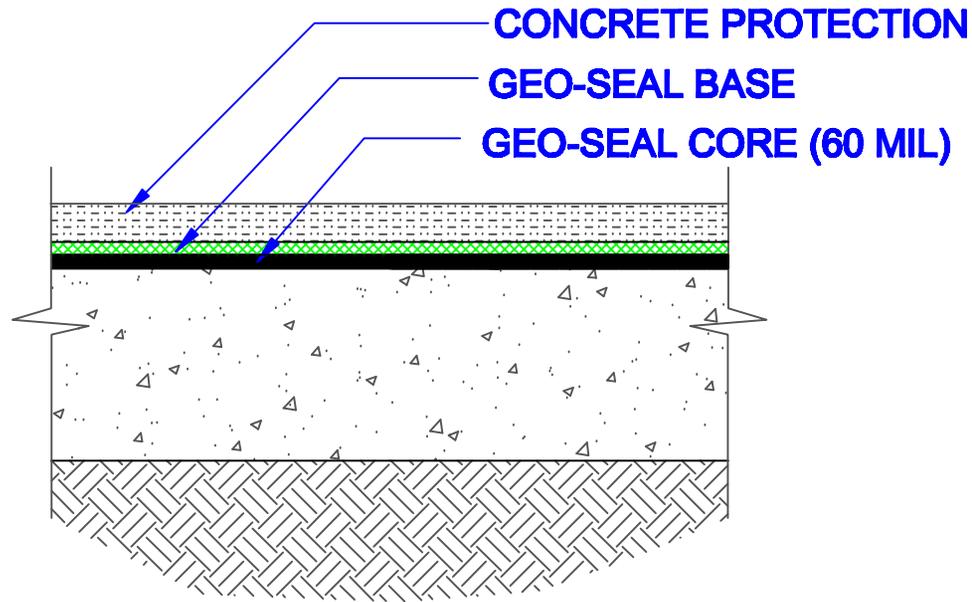
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**STEP SLAB
DETAIL**



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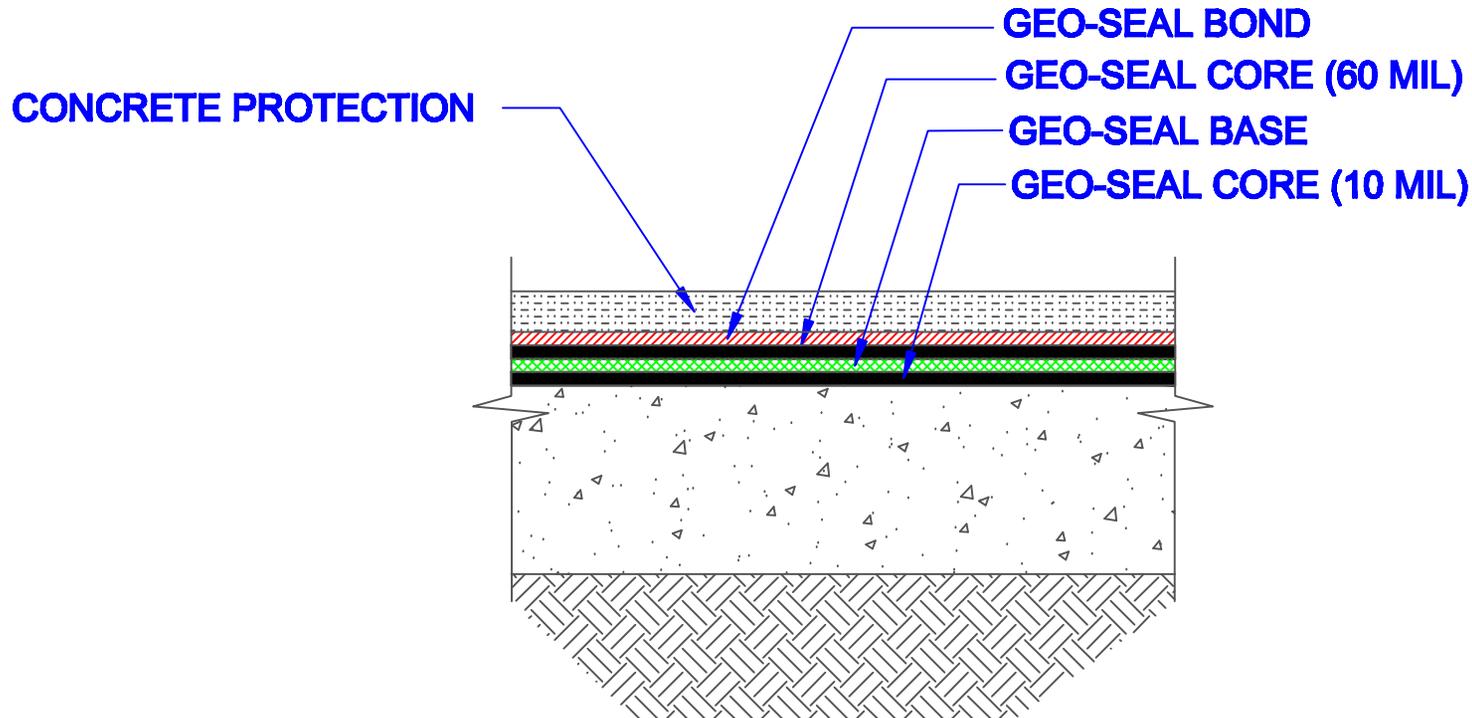
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**RETROFIT OVER
EXISTING SLAB
(OPTION 1)**



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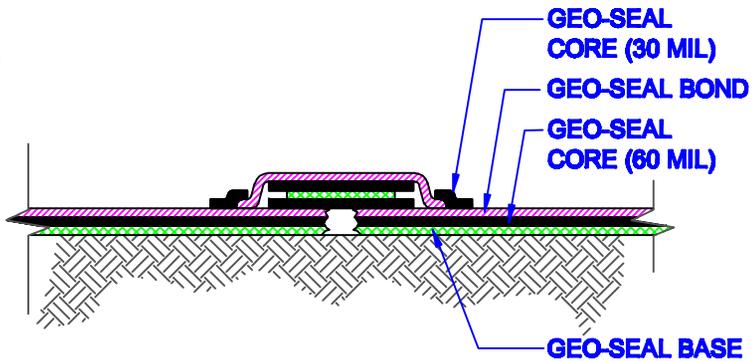
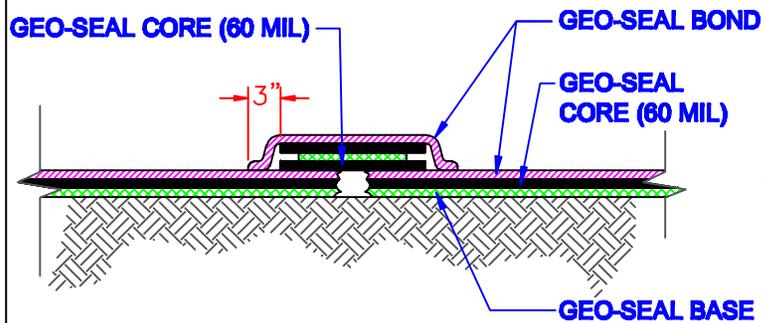
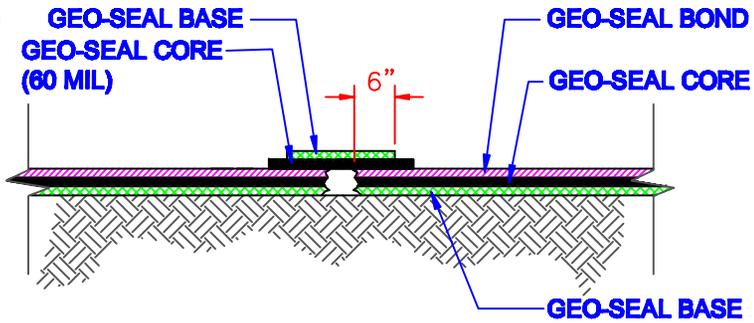
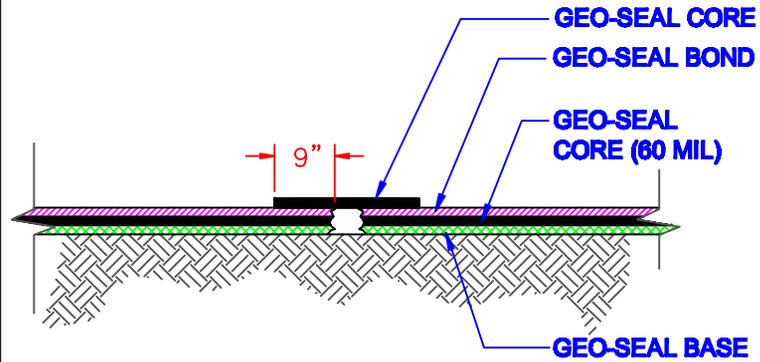
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**RETROFIT OVER
EXISTING SLAB
(OPTION 2)**



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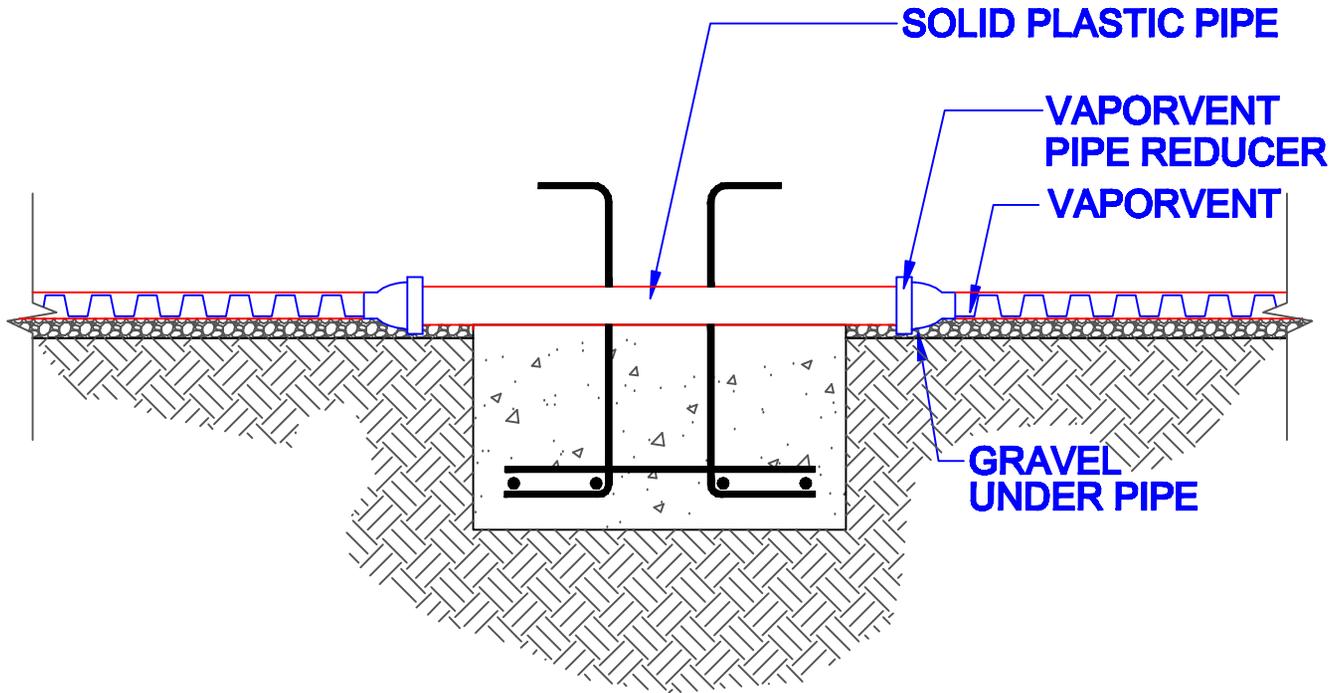
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**REPAIR
SEQUENCE**



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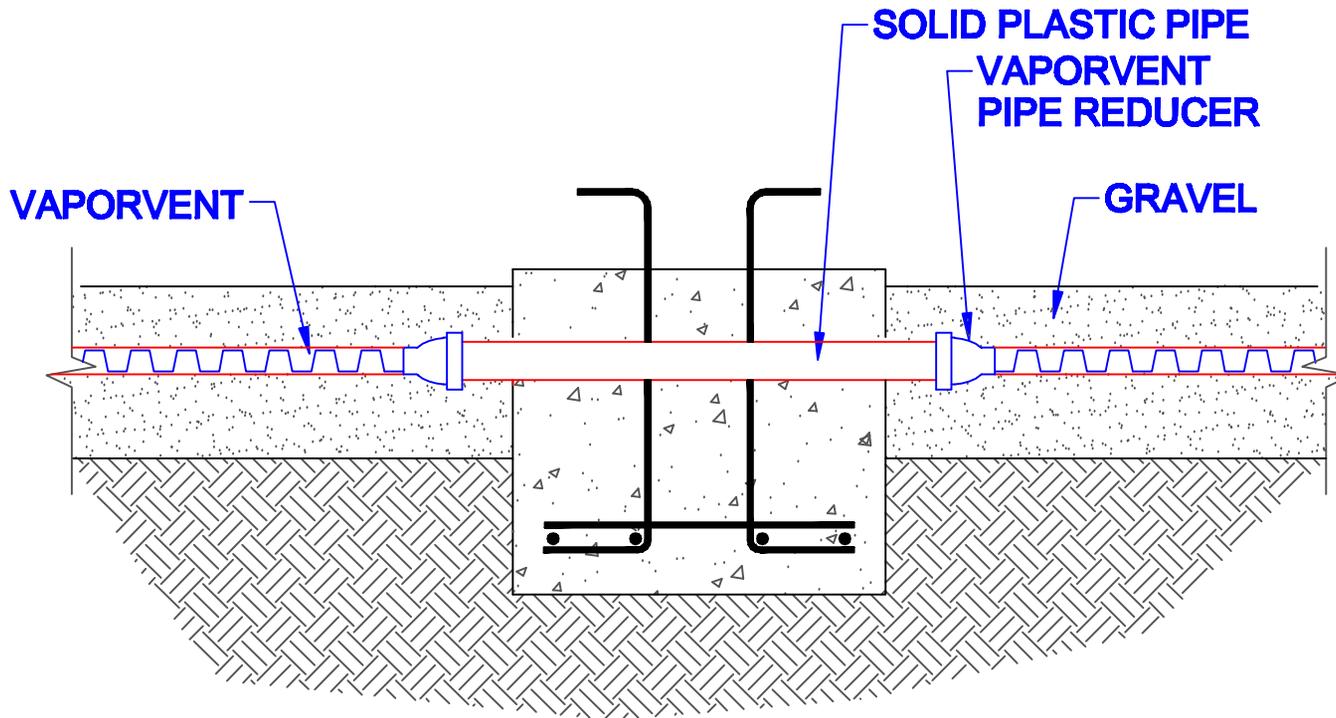
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**VAPORVENT
OVER FOOTING**



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**VAPOR VENT
OVER FOOTING**

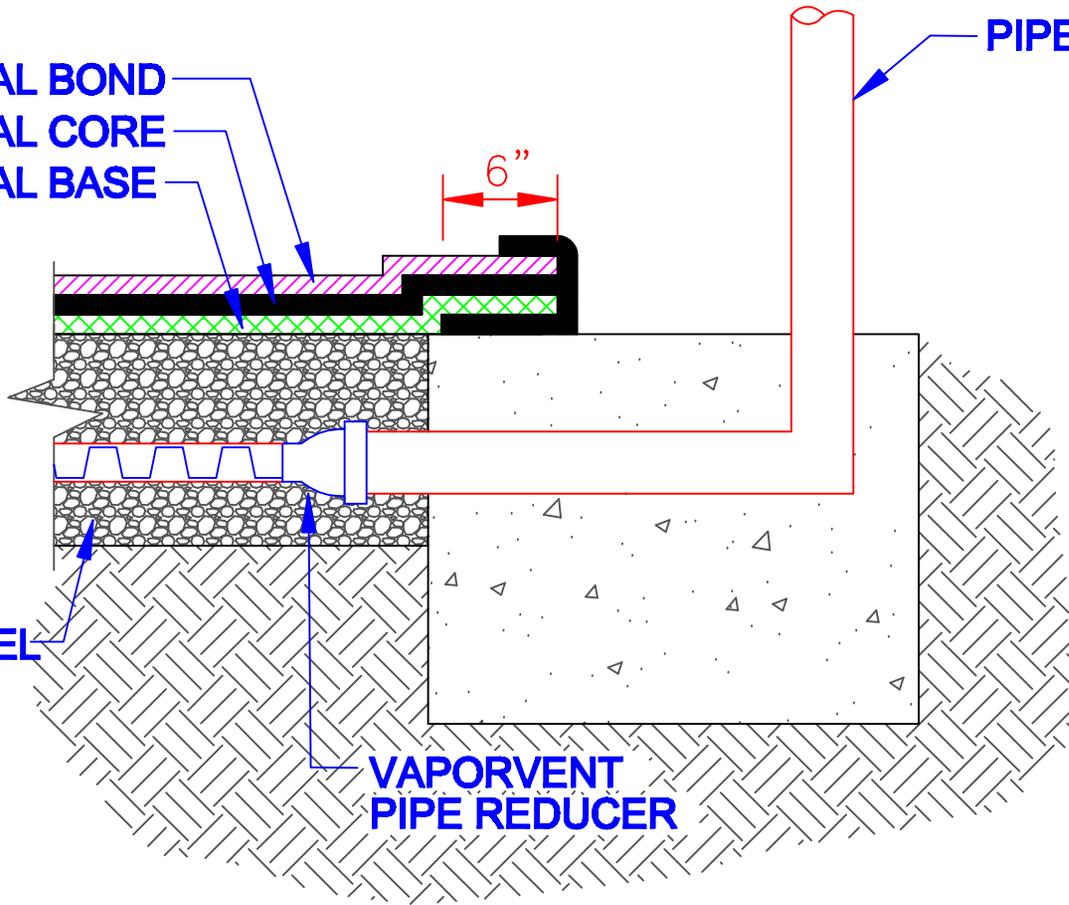
GEO SEAL BOND
GEO SEAL CORE
GEO SEAL BASE

GRAVEL

VAPORVENT
PIPE REDUCER

PIPE

6"



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**VAPORVENT
VENT RISER**

Geo-Seal® Vapor Intrusion Barrier
02 56 19.13
Fluid-Applied Gas Barrier
Version 1.4

Note: If membrane will be subjected to hydrostatic pressure, please contact Land Science Technologies™ for proper recommendations.

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including general and supplementary conditions and Division 1 specification sections, apply to this section.

1.2 SUMMARY

- A. This section includes the following:
 - 1. Substrate preparation:
 - 2. Vapor intrusion barrier components:
 - 3. Seam sealer and accessories.
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Division 2 Section "Earthwork", "Pipe Materials", "Sub-drainage Systems", "Gas Collection Systems":
 - 2. Division 3 Section "Cast-in-Place Concrete" for concrete placement, curing, and finishing:
 - 3. Division 5 Section "Expansion Joint Cover Assemblies", for expansion-joint covers assemblies and installation.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide a vapor intrusion barrier system that prevents the passage of methane gas and/or volatile organic compound vapors and complies with physical requirements as demonstrated by testing performed by an independent testing agency of manufacturer's current vapor intrusion barrier formulations and system design.

1.4 SUBMITTALS

- A. Submit product data for each type of vapor intrusion barrier, including manufacturer's printed instructions for evaluating and preparing the substrate, technical data, and tested physical and performance properties.
- B. Project Data - Submit shop drawings showing extent of vapor intrusion barrier, including details for overlaps, flashing, penetrations, and other termination conditions.
- C. Samples – Submit representative samples of the following for approval:
 - 1. Vapor intrusion barrier components.
- D. Certified Installer Certificates – Submit certificates signed by manufacturer certifying that installers comply with requirements under the "Quality Assurance" article.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who has been trained and certified in writing by the membrane manufacturer, Land Science Technologies™ for the installation of the Geo-Seal® System.
- B. Manufacturer Qualification: Obtain vapor intrusion barrier materials and system components from a single manufacturer source Land Science Technologies.
- C. Field Sample: Apply vapor intrusion barrier system field sample to 100 ft² (9.3 m²) of field area demonstrate application, detailing, thickness, texture, and standard of workmanship.
 - 1. Notify engineer or special inspector one week in advance of the dates and times when field sample will be prepared.
 - 2. If engineer or special inspector determines that field sample, does not meet requirements, reapply field sample until field sample is approved.
 - 3. Retain and maintain approved field sample during construction in an undisturbed condition as a standard for judging the completed methane and vapor intrusion barrier. An undamaged field sample may become part of the completed work.
- D. Pre-installation Conference: A pre-installation conference shall be held prior to application of the vapor intrusion barrier system to assure proper site and installation conditions, to include contractor, applicator, architect/engineer, other trades influenced by vapor intrusion barrier installation and special inspector (if any).

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site as specified by manufacturer labeled with manufacturer's name, product brand name and type, date of manufacture, shelf life, and directions for storing and mixing with other components.
- B. Store materials as specified by the manufacturer in a clean, dry, protected location and within the temperature range required by manufacturer. Protect stored materials from direct sunlight. If freezing temperatures are expected, necessary steps should be taken to prevent the freezing of the Geo-Seal CORE and Geo-Seal CORE Detail components.
- C. Remove and replace material that cannot be applied within its stated shelf life.

1.7 PROJECT CONDITIONS

- A. Protect all adjacent areas not to be installed on. Where necessary, apply masking to prevent staining of surfaces to remain exposed wherever membrane abuts to other finish surfaces.
- B. Perform work only when existing and forecasted weather conditions are within manufacturer's recommendations for the material and application method used.
- C. Minimum clearance of 24 inches is required for application of product. For areas with less than 24-inch clearance, the membrane may be applied by hand using Geo-Seal CORE Detail.
- D. Ambient temperature shall be within manufacturer's specifications. (Greater than +45°F/+7°C.) Consult manufacturer for the proper requirements when desiring to apply Geo-Seal CORE below 45°F/7°C.
- E. All plumbing, electrical, mechanical and structural items to be under or passing through the vapor intrusion barrier system shall be positively secured in their proper positions and appropriately protected prior to membrane application.
- F. Vapor intrusion barrier shall be installed before placement of fill material and reinforcing steel. When not possible, all exposed reinforcing steel shall be masked by general contractor prior to membrane application.
- G. Stakes used to secure the concrete forms **shall not penetrate** the vapor intrusion barrier system after it has been installed. If stakes need to puncture the vapor intrusion barrier system after it has been installed, the necessary repairs need to be made by a certified Geo-Seal applicator. To confirm the staking procedure is in agreement with the manufacturer's recommendation, contact Land Science Technologies.

1.8 WARRANTY

- A. General Warranty: The special warranty specified in this article shall not deprive the owner of other rights the owner may have under other provisions of the contract documents, and shall be in addition to, and run concurrent with, other warranties made by the contractor under requirements of the contract documents.
- B. Special Warranty: Submit a written warranty signed by vapor intrusion barrier manufacturer agreeing to repair or replace vapor intrusion barrier that does not meet requirements or that does not remain methane gas and/or volatile organic compound vapor tight within the specified warranty period. Warranty does not include failure of vapor intrusion barrier due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in the attached to structures that exceed 1/16 inch (1.58 mm) in width.
 - 1. Warranty Period: 1 year after date of substantial completion.
- C. Additional warranties are available upon request to the manufacturer.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Geo-Seal; Land Science Technologies™, San Clemente, CA. (949) 481-8118
 - 1. Geo-Seal BASE sheet layer
 - 2. Geo-Seal CORE spray layer and Geo-Seal CORE Detail
 - 3. Geo-Seal BOND protection layer

2.2 VAPOR INTRUSION BARRIER SPRAY MATERIALS

- A. Fluid applied vapor intrusion barrier system – Geo-Seal CORE; a single course, high build, polymer modified, asphalt emulsion. Waterborne and spray applied at ambient temperatures. A nominal thickness of 60 dry mils, unless specified otherwise. Non-toxic and odorless. Geo-Seal CORE Detail has similar properties with greater viscosity and is roller or brush applied. Manufactured by Land Science Technologies.

- B. Fluid applied vapor intrusion barrier physical properties.

Geo-Seal CORE – TYPICAL CURED PROPERTIES

Properties	Test Method	Results
Tensile Strength - CORE only	ASTM 412	32 psi
Tensile Strength - Geo-Seal System	ASTM 412	662 psi
Elongation	ASTM 412	4140%
Resistance to Decay	ASTM E 154 Section 13	4% Perm Loss
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	.026 g/ft ² /hr
Hydrostatic Water Pressure	ASTM D 751	26 psi
Perm rating	ASTM E 96 (US Perms)	0.21
Methane transmission rate	ASTM D 1434	Passed
Adhesion to Concrete & Masonry	ASTM C 836 & ASTM C 704	11 lbf./inch
Hardness	ASTM C 836	80
Crack Bridging	ASTM C 836	No Cracking
Heat Aging	ASTM D 4068	Passed
Environmental Stress Cracking	ASTM D 1693	Passed
Oil Resistance	ASTM D543	Passed
Soil Burial	ASTM D 4068	Passed
Low Temp. Flexibility	ASTM C 836-00	No Cracking at -20°C
Resistance to Acids:		
Acetic		30%
Sulfuric and Hydrochloric		13%
Temperature Effect:		
Stable		248°F
Flexible		13°F

Geo-Seal CORE Detail – TYPICAL CURED PROPERTIES

Properties	Test Method	Results
Tensile Strength	ASTM 412	32 psi
Elongation	ASTM 412	3860%
Resistance to Decay	ASTM E 154 Section 13	9% Perm Loss
Accelerated Aging	ASTM G 23	No Effect
Moisture Vapor Transmission	ASTM E 96	.026 g/ft ² /hr
Hydrostatic Water Pressure	ASTM D 751	28 psi
Perm rating (US Perms)	ASTM E 96	0.17
Methane transmission rate	ASTM D 1434	Passed
Adhesion to Concrete & Masonry	ASTM C 836	7 lbf./inch
Hardness	ASTM C 836	85
Crack Bridging	ASTM C 836	No Cracking
Low Temp. Flexibility	ASTM C 836-00	No Cracking at -20°C
Resistance to Acids:		
Acetic		30%
Sulfuric and Hydrochloric		13%
Temperature Effect:		
Stable		248°F
Flexible		13°F

2.3 VAPOR INTRUSION BARRIER SHEET MATERIALS

- A. The Geo-Seal BASE layer and Geo-Seal BOND layer are chemically resistant sheets comprised of a 5 mil high density polyethylene sheet thermally bonded to a 3 ounce non woven geotextile.
- B. Sheet Course Usage
1. As foundation base layer, use Geo-Seal BASE course and/or other base sheet as required or approved by the manufacturer.
 2. As top protective layer, use Geo-Seal BOND layer and/or other protection as required or approved by the manufacturer.
- C. Geo-Seal BOND and Geo-Seal BASE physical properties.

Properties	Test Method	Results
Film Thickness		5 mil
Composite Thickness		18 mil
Water Vapor Permeability	ASTM E 96	0.214
Adhesion to Concrete	ASTM D 1970	9.2 lbs/inch ²
Dart Impact	ASTM D 1790	>1070 gms, method A
		594 gms, method B
Puncture Properties Tear	ASTM B 2582 MD	11,290 gms
	ASTM B 2582 TD	13,150 gms

2.4 AXILLARY MATERIALS

- A. Geo-Seal FILM-11 may be used in lieu of, or in addition to, the standard Geo-Seal BASE and Geo-Seal BOND material when project conditions require a higher level of chemical resistance or greater durability is required. Contact Land Science Technologies for the proper recommendation and approval.

Properties	Test Method	Results
Film Thickness		11 mil
Classification	ASTM E 1745-09	Exceed Class A,B and C
Tensile	ASTM E 154-93	45 lbs / in
Puncture Resistance	ASTM D 1709	2400 grams
Water Vapor Permeance	ASTM E 96	0.020 Perms
Life Expectancy	ASTM E 154-93	Indefinite
Chemical Resistance	ASTM E 154-93	Excellent

- B. Sheet Flashing: 60-mil reinforced modified asphalt sheet good with double-sided adhesive.
- C. Reinforcing Strip: Manufacturer's recommended polypropylene and polyester fabric.
- D. Gas Venting Materials: Geo-Seal Vapor-Vent or Geo-Seal Vapor-Vent Poly, and associated fittings.
- E. Seam Detailing Sealant Mastic: Geo-Seal CORE Detail, a high or medium viscosity polymer modified water based asphalt material.
1. Back Rod: Closed-cell polyethylene foam.

PART 3 – EXECUTION

3.1 AUXILIARY MATERIALS

- A. Examine substrates, areas, and conditions under which vapor intrusion barrier will be applied, with installer present, for compliance with requirements. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 SUBGRADE SURFACE PREPARATION

- A. Verify substrate is prepared according to manufacturer's recommendations. On a horizontal surface, the substrate should be free from material that can potentially puncture the vapor intrusion barrier. Additional protection or cushion layers might be required if the earth or gravel substrate contains too many jagged points and edges that could puncture one or more of the system components. Contact manufacturer to confirm substrate is within manufactures recommendations.
- B. Geo-Seal can accommodate a wide range of substrates, including but not limited to compacted earth, sand, aggregate, and mudslabs.
1. Compacted Earth: Remove pieces of debris, gravel and/or any other material that can potentially puncture the Geo-Seal BASE. Remove any debris from substrate that can potentially puncture the Geo-Seal system prior to application.
 2. Sand: A sand subgrade requires no additional preparation, provided any material that can potentially puncture the Geo-Seal BASE layer is not present.
 3. Aggregate: Contact the manufacturer to ensure the aggregate layer will not be detrimental to the membrane. **The gravel layer must be compacted and rolled flat.** Ideally a ¾" minus gravel layer with rounded edges should be specified; however the Geo-Seal system can accommodate a wide variety of different substrates. Contact Land Science Technologies if there are questions regarding the compatibility of Geo-Seal and the utilized substrate. Exercise caution when specifying pea gravel under the membrane, if not compacted properly, pea gravel can become an unstable substrate.
 4. Mudslabs: The use of a mubslab under the Geo-Seal system is acceptable, contact Land Science Technologies for job specific requirements.
- C. Mask off adjoining surface not receiving the vapor intrusion barrier system to prevent the spillage or over spray affecting other construction.

- D. Earth, sand or gravel subgrades should be prepared and compacted to local building code requirements.

3.3 CONCRETE SURFACE PREPARATION

- A. Clean and prepare concrete surface to manufacturer's recommendations. In general, only apply the Geo-Seal CORE material to dry, clean and uniform substrates. Concrete surfaces must be a light trowel, light broom or equivalent finish. Remove fins, ridges and other projections and fill honeycomb, aggregate pockets, grout joints and tie holes, and other voids with hydraulic cement or rapid-set grout. It is the applicator's responsibility to point out unacceptable substrate conditions to the general contractor and ensure the proper repairs are made.
- B. When applying the Geo-Seal CORE or Geo-Seal CORE Detail material to concrete it is important to not apply the product over standing water. Applying over standing water will result in the membrane not setting up properly on the substrate
- C. Surfaces may need to be wiped down or cleaned prior to application. This includes, but is not limited to, the removal of forming oils, concrete curing agents, dirt accumulation, and other debris. Contact form release agent manufacturer or concrete curing agent manufacturer for VOC content and proper methods for removing the respective agent.
- D. Applying the Geo-Seal CORE to "green" concrete is acceptable and can be advantageous in creating a superior bond to the concrete surface. To help reduce blistering, apply a primer coat of only the asphalt component of the Geo-Seal CORE system. Some blistering of the membrane will occur and may be more severe on walls exposed to direct sunlight. Blistering is normal and will subside over time. Using a needle nose depth gauge confirm that the specified mil thickness has been applied.

3.4 PREPARATIONS AND TREATMENT OF TERMINATIONS

- A. Prepare the substrate surface in accordance with Section 3.3 of this document. Concrete surfaces that are not a light trowel, light broom or equivalent finish, will need to be repaired.
- B. Terminations on horizontal and vertical surfaces should extend 6" onto the termination surface. Job specific conditions may prevent a 6" termination. In these conditions, contact manufacturer for recommendations.
- C. Apply 30 mils of Geo-Seal CORE to the terminating surface and then embed the Geo-Seal BASE layer by pressing it firmly into the Geo-Seal CORE layer. Next, apply 60 mils of Geo-Seal CORE to the BASE layer. When complete, apply the Geo-Seal BOND layer. After the placement of the Geo-Seal BOND layer is complete, apply a final 30 mil seal of the Geo-Seal CORE layer over the edge of the termination. For further clarification, refer to the termination detail provided by manufacturer.
- D. The stated termination process is appropriate for terminating the membrane onto exterior footings, pile caps, interior footings and grade beams. When terminating the membrane to stem walls or vertical surfaces the same process should be used.

3.5 PREPARATIONS AND TREATMENT OF PENETRATIONS

- A. All pipe penetrations should be securely in place prior to the installation of the Geo-Seal system. Any loose penetrations should be secured prior to Geo-Seal application, as loose penetrations could potentially exert pressure on the membrane and damage the membrane after installation.
- B. To properly seal around penetrations, cut a piece of the Geo-Seal BASE layer that will extend 6" beyond the outside perimeter of the penetration. Cut a hole in the Geo-Seal BASE layer just big enough to slide over the penetration, ensuring the Geo-Seal BASE layer fits snug against the penetration, this can be done by cutting an "X" no larger than the inside diameter of the penetration. There should not be a gap larger than a 1/8" between the Geo-Seal BASE layer and the penetration. Other methods can also be utilized, provided, there is not a gap larger than 1/8" between the Geo-Seal BASE layer and the penetration.
- C. Seal the Geo-Seal BASE layer using Geo-Seal CORE or Geo-Seal CORE Detail to the underlying Geo-Seal BASE layer.
- D. Apply one coat of Geo-Seal CORE Detail or Geo-Seal CORE spray to the Geo-Seal BASE layer and around the penetration at a thickness of 30 mils. Penetrations should be treated in a 6-inch radius around penetration and 3 inches onto penetrating object.
- E. Embed a fabric reinforcing strip after the first application of the Geo-Seal CORE spray or Geo-Seal CORE Detail material and then apply a second 30 mil coat over the embedded joint reinforcing strip ensuring its complete saturation of the embedded strip and tight seal around the penetration.
- F. After the placement of the Geo-Seal BOND layer, a cable tie should then be placed around the finished penetration. The cable tie should be snug, but not overly tight so as to slice into the finished seal.

OPTION: A final application of Geo-Seal CORE may be used to provide a finishing seal after the Geo-Seal BOND layer has been installed.

NOTE: Metal or other slick penetration surfaces may require treatment in order to achieve proper adhesion. For plastic pipes, sand paper may be used to achieve a profile, an emery cloth is more appropriate for metal surfaces. An emery cloth should also be used to remove any rust on metal surfaces.

3.6 GEO-SEAL BASE LAYER INSTALLATION

- A. Install the Geo-Seal BASE layer over substrate material in one direction with six-inch overlaps and the geotextile (fabric side) facing down.
- B. Secure the Geo-Seal BASE seams by applying 60 mils of Geo-Seal CORE between the 6" overlapped sheets with the geotextile side down.
- C. Visually verify there are no gaps/fish-mouths in seams.
- D. For best results, install an equal amount of Geo-Seal BASE and Geo-Seal CORE in one day. Leaving unsprayed Geo-Seal BASE overnight might allow excess moisture to collect on the Geo-Seal BASE. If excess moisture collects, it needs to be removed.

NOTE: In windy conditions it might be necessary to encapsulate the seam by spraying the Geo-Seal CORE layer over the completed Geo-Seal BASE seam.

3.7 GEO-SEAL CORE APPLICATION

- A. Set up spray equipment according to manufacturer's instructions.
- B. Mix and prepare materials according to manufacturer's instructions.
- C. The two catalyst nozzles (8001) should be adjusted to cross at about 18" from the end of the wand. This apex of catalyst and emulsion spray should then be less than 24" but greater than 12" from the desired surface when spraying. When properly sprayed the fan pattern of the catalyst should range between 65° and 80°.
- D. Adjust the amount of catalyst used based on the ambient air temperature and surface temperature of the substrate receiving the membrane. In hot weather use less catalyst as hot conditions will quickly "break" the emulsion and facilitate the curing of the membrane. In cold conditions and on vertical surfaces use more catalyst to "break" the emulsion quicker to expedite curing and set up time in cold conditions.
- E. To spray the Geo-Seal CORE layer, pull the trigger on the gun. A 42° fan pattern should form when properly sprayed. Apply one spray coat of Geo-Seal CORE to obtain a seamless membrane free from pinholes or shadows, with an average dry film thickness of 60 mils (1.52 mm).
- F. Apply the Geo-Seal CORE layer in a spray pattern that is perpendicular to the application surface. The concern when spraying at an angle is that an area might be missed. Using a perpendicular spray pattern will limit voids and thin spots, and will also create a uniform and consistent membrane.
- G. Verify film thickness of vapor intrusion barrier every 500 ft². (46.45 m²), for information regarding Geo-Seal quality control measures, refer to the quality control procedures in Section 3.9 of this specification.
- H. The membrane will generally cure in 24 to 48 hours. As a rule, when temperature decreases or humidity increases, the curing of the membrane will be prolonged. The membrane does not need to be fully cured prior the placement of the Geo-Seal BOND layer, provided mil thickness has been verified and a smoke test will be conducted.
- I. **Do not penetrate** membrane after it has been installed. If membrane is penetrated after the membrane is installed, it is the responsibility of the general contractor to notify the certified installer to make repairs.
- J. If applying to a vertical concrete wall, apply Geo-Seal CORE directly to concrete surface and use manufacturer's recommended protection material based on site specific conditions. If applying Geo-Seal against shoring, contact manufacturer for site specific installation instructions.

NOTE: Care should be taken to not trap moisture between the layers of the membrane. Trapping moisture may occur from applying a second coat prior to the membrane curing. Repairs and detailing may be done over the Geo-Seal CORE layer when not fully cured.

3.8 GEO-SEAL BOND PROTECTION COURSE INSTALLATION

- A. Install Geo-Seal BOND protection course perpendicular to the direction of the Geo-Seal BASE course with overlapped seams over nominally cured membrane no later than recommended by manufacturer and before starting subsequent construction operations.
- B. Sweep off any water that has collected on the surface of the Geo-Seal CORE layer, prior to the placement of the Geo-Seal BOND layer.
- C. Overlap and seam the Geo-Seal BOND layer in the same manner as the Geo-Seal BASE layer.
- D. To expedite the construction process, the Geo-Seal BOND layer can be placed over the Geo-Seal CORE immediately after the spray application is complete, provided the Geo-Seal CORE mil thickness has been verified.

3.9 QUALITY ASSURANCE

- A. The Geo-Seal system must be installed by a trained and certified installer approved by Land Science Technologies.

- B. For projects that will require a material or labor material warranty, Land Science Technologies will require a manufacturer's representative or certified 3rd party inspector to inspect and verify that the membrane has been installed per the manufacturer's recommendations.

The certified installer is responsible for contacting the inspector for inspection. Prior to application of the membrane, a notice period for inspection should be agreed upon between the applicator and inspector.

- C. The measurement tools listed below will help verify the thickness of the Geo-Seal CORE layer. As measurement verification experience is gained, these tools will help confirm thickness measurements that can be obtained by pressing one's fingers into the Geo-Seal CORE membrane.

To verify the mil thickness of the Geo-Seal CORE, the following measurement devices are required.

1. Mil reading caliper: Calipers are used to measure the thickness of coupon samples. To measure coupon samples correctly, the thickness of the Geo-Seal sheet layers (18 mils each) must be taken into account. Mark sample area for repair.
2. Wet mil thickness gauge: A wet mil thickness gauge may be used to quickly measure the mil thickness of the Geo-Seal CORE layer. The thickness of the Geo-Seal sheet layers do not factor into the mil thickness reading.

NOTE: When first using a wet mil thickness gauge on a project, collect coupon samples to verify the wet mil gauge thickness readings.
3. Needle nose digital depth gauge: A needle nose depth gauge should be used when measuring the Geo-Seal CORE thickness on vertical walls or in field measurements. Mark measurement area for repair.

To obtain a proper wet mil thickness reading, take into account the 5 to 10 percent shrinkage that will occur as the membrane fully cures. Not taking into account the thickness of the sheet layers, a freshly sprayed membrane should have a minimum wet thickness of 63 (5%) to 66 (10%) mils.

Methods on how to properly conduct Geo-Seal CORE thickness sampling can be obtained by reviewing literature prepared by Land Science Technologies.

- D. It should be noted that taking too many destructive samples can be detrimental to the membrane. Areas where coupon samples have been removed need to be marked for repair.
- E. Smoke Testing is highly recommended and is the ideal way to test the seal created around penetrations and terminations. Smoke Testing is conducted by pumping non-toxic smoke underneath the Geo-Seal vapor intrusion barrier and then repairing the areas where smoke appears. Refer to smoke testing protocol provided by Land Science Technologies. For projects that will require a material or labor material warranty, Land Science Technologies will require a smoke test.
- F. Visual inspections prior to placement of concrete, but after the installation of concrete reinforcing, is recommended to identify any punctures that may have occurred during the installation of rebar, post tension cables, etc. Punctures in the Geo-Seal system should be easy to identify due to the color contrasting layers of the system.