EXHIBIT B

Environmental Clearance

MND (CD), MMP

CITY OF LOS ANGELES

OFFICE OF THE CITY CLERK ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROPOSED MITIGATED NEGATIVE DECLARATION

LEAD CITY AGENCY	COUNCIL DISTRICT
City of Los Angeles	12
PROJECT TITLE	**CASE NO.**
Lassen and Mason Project	CPC-2016-5001-VZC-HD-CUB-CU-SPR; VTT-74699; ENV-2016-5002-MND

PROJECT LOCATION

20504, 20524 Lassen Avenue and 9805, 9825, 9829, 9833, 9835, 9837, 9839, 9841, 9843, 9845, 9847, 9849, 9851, 9853, 9855, 9857 Mason Avenue, Los Angeles, CA 91311

PROJECT DESCRIPTION

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of retail/restaurant land uses, and 7,544 square feet of restaurant with drive-thru land uses, and surface parking. To allow for implementation of the Project, the Project Applicant requests the following discretionary approvals: **VESTING TENTATIVE TRACT MAP (VTTM 74699)**, pursuant to LAMC Section 17.15, to merge eleven lots and re-subdivide the Subject Property into eight lots for a mixed-use Project including retail commercial/health club/restaurants and a hotel; **VESTING ZONE and HEIGHT DISTRICT CHANGE** pursuant to Los Angeles Municipal Code Section 12.32F, from **C2-1L/P-1L** to **C2-1L**; from **[Q]MR1-1VL** to **CM-1L/M1-1**; and from **MR1-1/P-1/C2-1L** to **CM-1L/M1-1**; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.24(b) for the construction, use and operation of a Hotel in the M1/CM Zone where more than fifty-percent of the lot on which the Hotel is located is in the CM Zone; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.17 for the construction, use and operation of three drive-through fast food establishments in the C2 and CM Zones; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.27 to permit the use and operation of a 24-hour/day food establishment and the installation and use of a Pole Sign on Lot 6 (VTTM 74699), a "Commercial Corner Development" lot; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.19(a) to permit Residential Density Transfer for buildings that comprise a Unified mixed-use Development; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.1 for the sale and dispensing of a full line of alcoholic beverages including beer and wine as an incidental business in or accessory to two operators: 1) the proposed 124-guest room Residence Inn Hotel; and, 2) a 4,000-square-foot 132-seat restaurant; and **SITE PLAN REVIEW and APPROVAL**, pursuant to LAMC Section 16.05, for: a) a124-guest room hotel; b) a change of use with three drive-through fast-food establishments; and, c) the change use for the unified center, excluding the drive-through establishments, with a net increase of more than 1,000 daily trips.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY

Hanover-HRI Development
20 North Raymond Avenue, Suite 300
Pasadena, CA 91103

FINDING:

The City Planning Department of the City of Los Angeles has Proposed that a mitigated negative declaration be adopted for this project because the mitigation measure(s) outlined on the attached page(s) will reduce any potential significant adverse effects to a level of insignificance

(CONTINUED ON PAGE 2)

SEE ATTACHED SHEET(S) FOR ANY MITIGATION MEASURES IMPOSED.

Any written comments received during the public review period are attached together with the response of the Lead City Agency. The project decision-make may adopt the mitigated negative declaration, amend it, or require preparation of an EIR. Any changes made should be supported by substantial evidence in the record and appropriate

THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED.

NAME OF PERSON PREPARING THIS FORM	TITLE	TELEPHONE NUMBER
JOJO PEWSAWANG	CITY PLANNING ASSOCIATE	213 978-1214

ADDRESS	SIGNATURE (Official)	DATE
200 N. SPRING STREET, 6th FLOOR LOS ANGELES, CA. 90012		MAY 17, 2017

AESTHETICS

I-1: Non-Protected Trees

- Prior to issuance of any permit related to development of the Project, a plot plan shall be prepared for the Project, indicating the location, size, type, and general condition of all existing trees on the Project site and within the adjacent public right(s)-of-way.

- All significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the Project site proposed for removal shall be replaced at a 1:1 ratio with a minimum 24-inch box tree. Net new trees located within the parkway of the adjacent public-right(s)-of-way may be counted toward replacement tree requirements.

- Removal or planning of any tree in the public right-of-way shall require approval of the Board of Public Works. All trees in the public right-of-way shall be provided in the current standards of the Urban Forestry Division of the Department of Public Works, Bureau of Street Services.

BIOLOGICAL RESOURCES

-1: To avoid potential significant impacts to nesting birds, including migratory birds and raptors, one of the following shall be implemented by the Project Applicant:

- Conduct vegetation removal associated with construction from September 1st through January 31st, when birds are not nesting. Initiate grading activities prior to the breeding season (which is generally February 1st through August 31st) and keep disturbance activities constant throughout the breeding season to prevent birds from establishing nests in surrounding habitat (in order to avoid possible nest abandonment); if there is a lapse in activities of more than five days, pre-construction surveys shall be necessary as described in the bullet below.

OR...

- Conduct pre-construction surveys for nesting birds if vegetation removal or grading is initiated during the nesting season. A qualified wildlife biologist shall conduct weekly pre-construction bird surveys no more than 30 days prior to initiation of grading to provide confirmation on the presence or absence of active nests in the vicinity (at least 300 to 500 feet around the individual construction site, as access allows). The last survey should be conducted no more than three days prior to the initiation of clearance/construction work. If active nests are encountered, clearing and construction in the vicinity of the nests shall be deferred until the young birds have fledged and there is no evidence of a second attempt at nesting. A minimum buffer of 300 feet (500 feet for raptor nests) or as determined by a qualified biologist shall be maintained during construction depending on the species and location. The perimeter of the nest-setback zone shall be fenced or adequately demarcated with staked flagging at 20-foot intervals, and construction personnel and activities restricted from the area. Construction personnel should be instructed on the sensitivity of the area. A survey report by the qualified biologist documenting and verifying compliance with the mitigation and with applicable state and federal regulations protecting birds shall be submitted to the City and County, depending on within which jurisdiction the construction activity is occurring. The qualified biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas to ensure that no inadvertent impacts on these nests would occur.

ULTURAL RESOURCES

·1: Prior to issuance of a Certificate of Occupancy, the Project Applicant shall coordinate with the Department of Building and Safety to ensure that the following features have been incorporated into the Project:

- Low-pitched gable roof: All enclosures for mechanical equipment that must be placed on the roof should avoid visibility from the primary façade or the main view from the northwest corner of the former Safeway building.

- Exposed glulam roof beams, exposed at the gable ends, on the north façade eaves, and at the interior ceiling: Where unpainted, gluelam beams shall remain unpainted in order to show the striations of the layers of wood. This applies chiefly to the interior, as the exterior beam ends have been painted.

  Interior beams should remain exposed. If they are covered, the treatment should be reversible in accordance with Standard #2.

- Unornamented buff-colored brick veneer with raked horizontal joints: The brick of the front façade that has been poorly patched in limited areas on the façade and planters shall be cleaned of excess mortar and the bricks re-set properly to match adjacent unaltered surfaces and mortar joints. Any new brick that is needed for repairs should be salvaged from the smaller buildings on the site that were built concurrently of the same materials but which were determined not to be historic resources.

- Painted concrete wall panels: The essential character of the closed façade marked by concrete structural bays shall remain.

- Floor-to-ceiling window arrangement at the entrance to the primary (east) façade: This area shall maintain the same configuration. The non-original fenestration shall be replaced. No changes to the arrangement of brick features on the primary façade shall occur.

- Pattern of punched rectangular windows with obscure glass in multiple colors at the primary facades: Salvage and reuse the colored glass, which is an original feature. Source similar glass where panes may be broken. Remount original glass in original openings with a new sealant or putty as appropriate to maintain historic appearance of this feature.

AZARDS AND HAZARDOUS MATERIALS

·1: Prior to issuance of a demolition permit for buildings located on OU2 and OU3 of the Project site, the Project Applicant shall submit a No Further Action letter issued by DTSC to the Department of Building and Safety.

OISE

2-1: All powered construction equipment shall be equipped with exhaust mufflers or other suitable noise reduction devices capable of achieving a sound attenuation of at least 3 dBA. On-site power generators shall either be plug-in electric or solar powered.

2-2: Temporary sound barriers capable of achieving a sound attenuation of at least 5 dBA shall be erected along the Project's northern, eastern, and southern boundaries.

TRANSPORTATION/TRAFFIC

6-1: **Mason Avenue/Lassen Street** - Prior to issuance of a Certificate of Occupancy, the Project Applicant shall restripe the eastbound Lassen Street approach to the Mason Avenue intersection within the existing roadway width to provide one left-turn lane, two through lanes, and one right-turn lane and shall change the existing traffic signal equipment to

accommodate the changed lane configuration.

5-2: In accordance with LADOT's requirements, the Project Applicant shall implement the following:

- Prior to issuance of any construction-related permit, the Project Applicant shall submit a construction work site traffic control plan to LADOT for review and approval. The plan shall show the location(s) of any roadway or sidewalk closures, traffic detours, haul routes, hours of construction, protective devices, warning signs, and access to abutting properties. All construction-related traffic shall be restricted to off-peak hours.

- Prior to issuance of a building permit, the Project Applicant shall check with the City's Bureau of Engineering Land Development Group to determine the specific highway dedication, street widening, and/or sidewalk requirements for the Project.

- The Project Applicant shall check with the City's Department of Building and Safety to confirm the number of Code-required parking spaces for the Project.

- The southerly one-way ingress driveway on Mason Avenue shall require a covenant and agreement between the Project Applicant and the neighbor property owner.

- Final LADOT approval of driveway dimensions, access, and circulation schemes shall be obtained from prior to issuance of any associated building permits.

- In order to minimize and prevent last minute building design changes, the Project Applicant shall contact LADOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans.

- A minimum 40-foot reservoir space between the new property line and the first parking stall and/or security gate shall be provided or to the satisfaction of LADOT.

- All truck loading and unloading shall take place onsite with no vehicles backing into the street. The loading/unloading areas shall be shown clearly on the Project site plans.

- All proposed two-way driveways shall be 30 feet wide, exclusive of side slope or to the satisfaction of LADOT.

TRIBAL CULTURAL RESOURCES

7-1: During the course of any ground disturbance activities, the applicant, or their agent, shall retain a professional Native American monitor(s). Ground disturbance activities shall include the following: excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, pounding posts, augering, backfilling, blasting, stripping topsoil or a similar activity. Monitoring of the project site during ground disturbance activities shall comply with the following:

a. The Project Applicant, or their agent, shall obtain a professional Native American monitor, or monitors, by contacting the Gabrieleno Band of Mission Indians. Prior to the issuance of a grading permit, evidence shall be provided to the Department of City Planning that monitor(s) have been obtained;
b. A monitor shall be secured for each grading unit. In the event that there are simultaneous grading units operating at the same time, there shall be one monitor per grading unit;
c. In the event that subsurface archaeological resources, human remains, or other tribal cultural resources are encountered during the course of ground disturbance activities, all such activities shall temporarily cease on the project site until the archaeological or other tribal cultural resources are assessed and subsequent recommendations are determined by a qualified archaeologist. In the event that human remains are

discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, including the required notification to the County Coroner and the Native American Heritage Commission;

d. In the event that subsurface resources are encountered during the course of ground disturbance activities, the qualified archaeologist on site shall specify a radius around where resources were encountered to protect such resources until the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 have been fulfilled. Project activities may continue outside of the designated radius area.

e. Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC).

City of Los Angeles

Department of City Planning • Environmental Analysis Section

City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012

MITIGATED NEGATIVE DECLARATION

CHATSWORTH-PORTER RANCH COMMUNITY PLAN AREA

Lassen and Mason Project

Case Number: CPC-2016-5001-VZC-HD-CUB-CU-SPR; VTT-74699; ENV-2016-5002-MND

Project Location: 20504, 20524 Lassen Avenue and 9805, 9825, 9829, 9833, 9835, 9837, 9839, 9841, 9843, 9845, 9847, 9849, 9851, 9853, 9855, 9857 Mason Avenue, Los Angeles, CA 91311

Council District: 12, Mitchell Englander

Project Description: The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of retail/restaurant land uses, and 7,544 square feet of restaurant with drive-thru land uses, and surface parking. To allow for implementation of the Project, the Project Applicant requests the following discretionary approvals: **VESTING TENTATIVE TRACT MAP (VTTM 74699)**, pursuant to LAMC Section 17.15, to merge eleven lots and re-subdivide the Subject Property into eight lots for a mixed-use Project including retail commercial/health club/restaurants and a hotel; **VESTING ZONE and HEIGHT DISTRICT CHANGE** pursuant to Los Angeles Municipal Code Section 12.32F, from **C2-1L/P-1L** to **C2-1L;** from **[Q]MR1-1VL** to **CM-1L/M1-1;** and from **MR1-1/P-1/C2-1L** to **CM-1L/M1-1; CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.24(b) for the construction, use and operation of a Hotel in the M1/CM Zone where more than fifty-percent of the lot on which the Hotel is located is in the CM Zone; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.17 for the construction, use and operation of three drive-through fast food establishments in the C2 and CM Zones; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.27 to permit the use and operation of a 24-hour/day food establishment and the installation and use of a Pole Sign on Lot 6 (VTTM 74699), a "Commercial Corner Development" lot; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.19(a) to permit Residential Density Transfer for buildings that comprise a Unified mixed-use Development; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.1 for the sale and dispensing of a full line of alcoholic beverages including beer and wine as an incidental business in or accessory to two operators: 1) the proposed 124-guest room Residence Inn Hotel; and, 2) a 4,000-square-foot 132-seat restaurant; and **SITE PLAN REVIEW and APPROVAL**, pursuant to LAMC Section 16.05, for: a) a124-guest room hotel; b) a change of use with three drive-through fast-food establishments; and, c) the change use for the unified center, excluding the drive-through establishments, with a net increase of more than 1,000 daily trips.

APPLICANT:	PREPARED BY:	ON BEHALF OF:
Hanover-HRI Development 20 North Raymond Avenue, Suite 300 Pasadena, CA 91103	CAJA Environmental Services 11990 San Vicente Boulevard Los Angeles, CA 90049	The City of Los Angeles Department of City Planning Expedited Processing Section

April 2017

I. INTRODUCTION

Introduction

The subject of this Initial Study is the demolition and removal of some of the existing structures and parking areas at the Project site in the Chatsworth-Porter Ranch Community Plan area of the City of Los Angeles (the "City"), including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas, and adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of restaurant/retail land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking. The Project Applicant is HRI Development. A more detailed description of the Project is contained in Section II (Project Description). The City's Department of City Planning is the Lead Agency under the California Environmental Quality Act (CEQA).

Project Information

Project Title:	Lassen and Mason Project
Project Location:	20504, 20524 Lassen Avenue and 9805, 9825, 9829, 9833, 9835, 9837, 9839, 9841, 9843, 9845, 9847, 9849, 9851, 9853, 9855, 9857 Mason Avenue, Los Angeles, CA 91311
Lead Agency:	City of Los Angeles Department of City Planning
City Contact Person:	JoJo Pewsawang, City Planning Associate

Organization of Initial Study

This Draft Initial Study is organized into six sections as follows:

Introduction: This section provides introductory information such as the Project title, the Project Applicant, and the Lead Agency for the Project.

Project Description: This section provides a detailed description of the environmental setting and the Project, including Project characteristics and environmental setting.

Initial Study Checklist and Impact Analysis: This section contains the completed Initial Study Checklist and an assessment and discussion of each environmental issue identified in the Checklist. When the evaluation identifies potentially significant effects, as identified in the Checklist, mitigation measures are provided to reduce such impacts to less-than-significant levels.

Preparers of Initial Study and Persons Consulted: This section provides a list of City personnel, other governmental agencies, and consultant team members that participated in the preparation of the Initial Study.

II. PROJECT DESCRIPTION

ENVIRONMENTAL SETTING

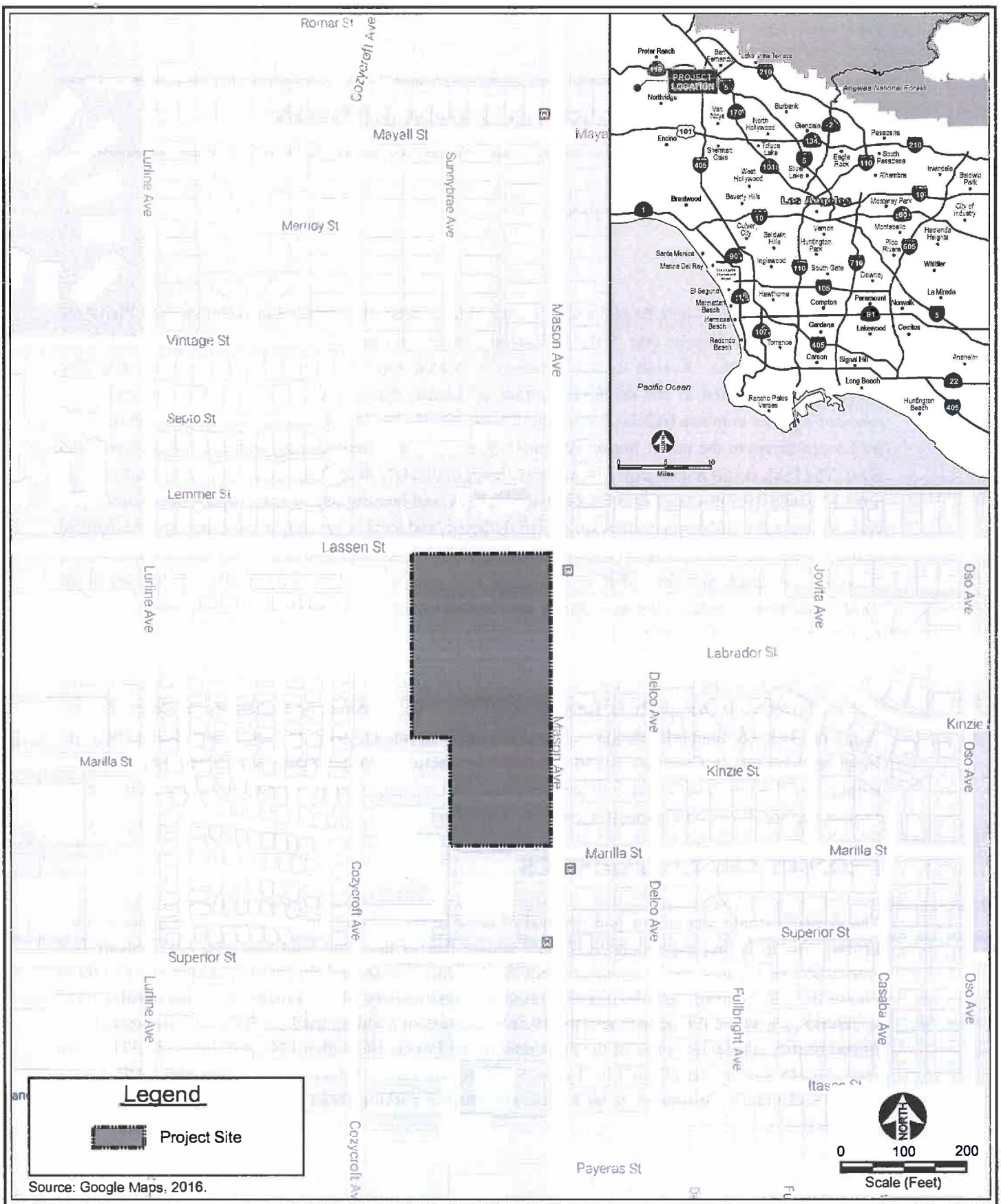
Project Site

The approximately 8.23-acre Project site is located in the Chatsworth-Porter Ranch Community Plan Area of the City of Los Angeles (the "City"). Regional access to the Project site is provided via California State Route 118 (the "Ronald Reagan Freeway") located approximately 1.6 miles to the north. The Project site is located at the southwest corner of Lassen Street and Mason Avenue and comprises assessor's parcel numbers (APNs) 2748-0050-20, 21, 22, 27, 28, 29, 44, and 48. The Project site is bound by Lassen Street to the north; Mason Avenue to the east; and manufacturing land uses to the south and west. The Project site is currently developed with approximately 40,820 square feet of retail land uses, an approximately 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. The Project site location is shown on Figures II-1 and II-2.

The Project site is zoned [Q]MR1-1VL (Qualified Condition, Restricted Industrial Zone, Height District 1VL), C2-1VL (Commercial Zone, Height District 1L), P-1L (Automobile Parking Zone, Height District 1L), and P-1 (Automobile Parking Zone, Height District 1), with the land use designations of Neighborhood Office Commercial and Limited Manufacturing. Additionally, the Project site is located within ZI-2374 Los Angeles State Enterprise Zone. The existing zoning and land use designation for the Project site are shown on Figures II-3 and II-4, respectively.

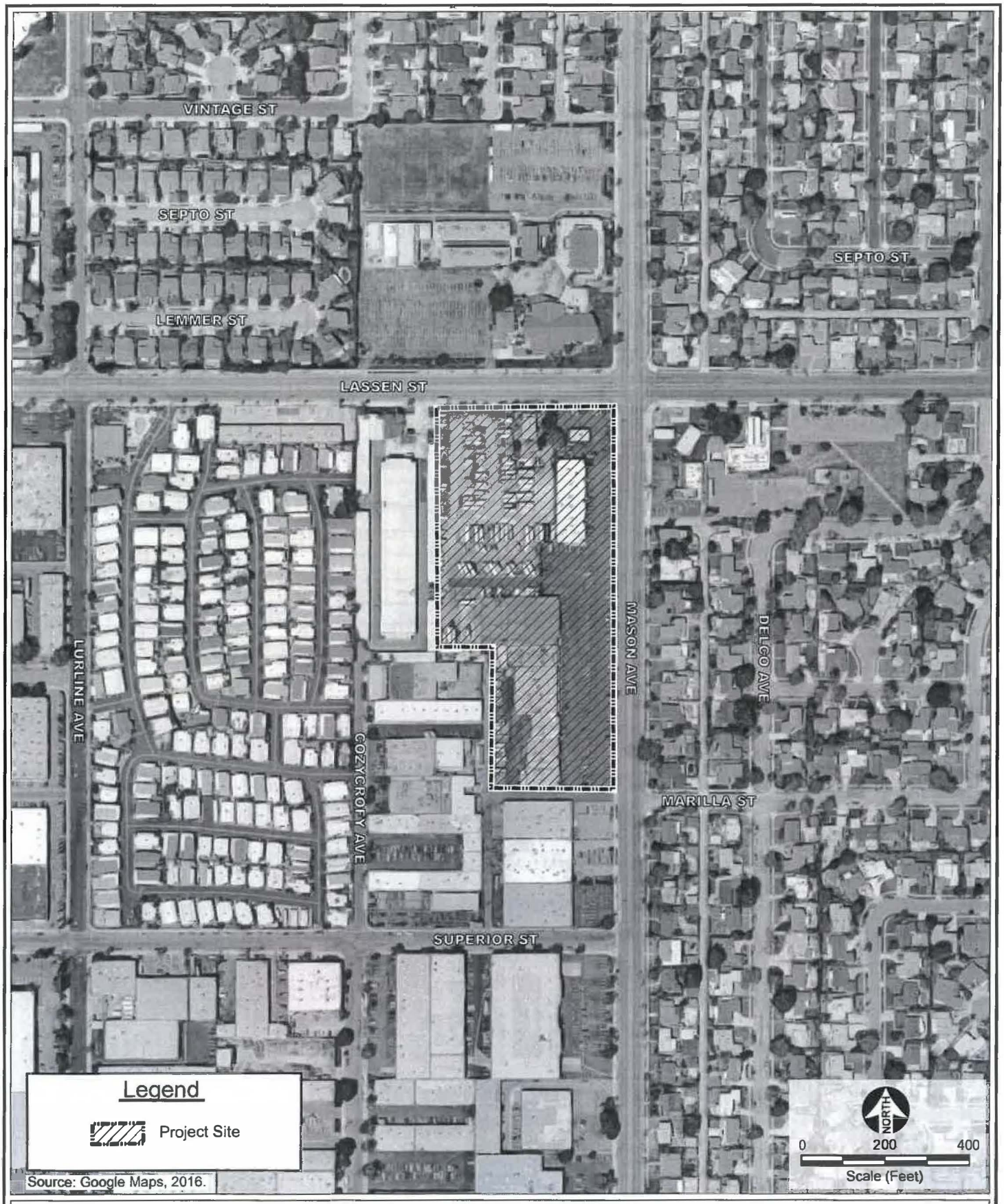
PROJECT CHARACTERISTICS

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas (refer to Figure II-5). The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 16,845 square feet of retail land uses, 9,774 square feet of restaurant land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking (refer to Table II-1 and Figures II-6 through II-35).



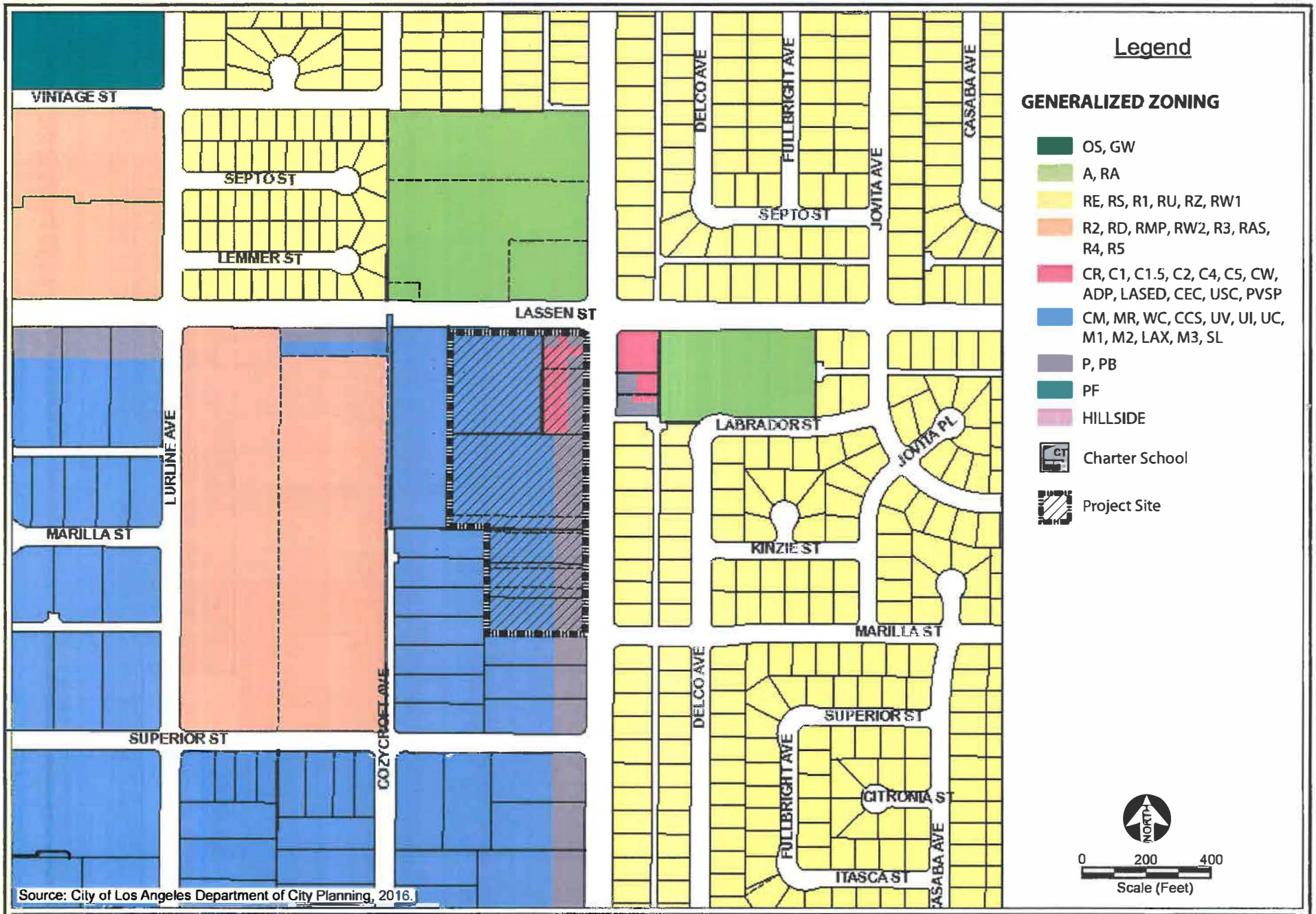
CAJA Environmental Services, LLC

Figure II-1
Ragional Location Map



CAJA Environmental Services, LLC

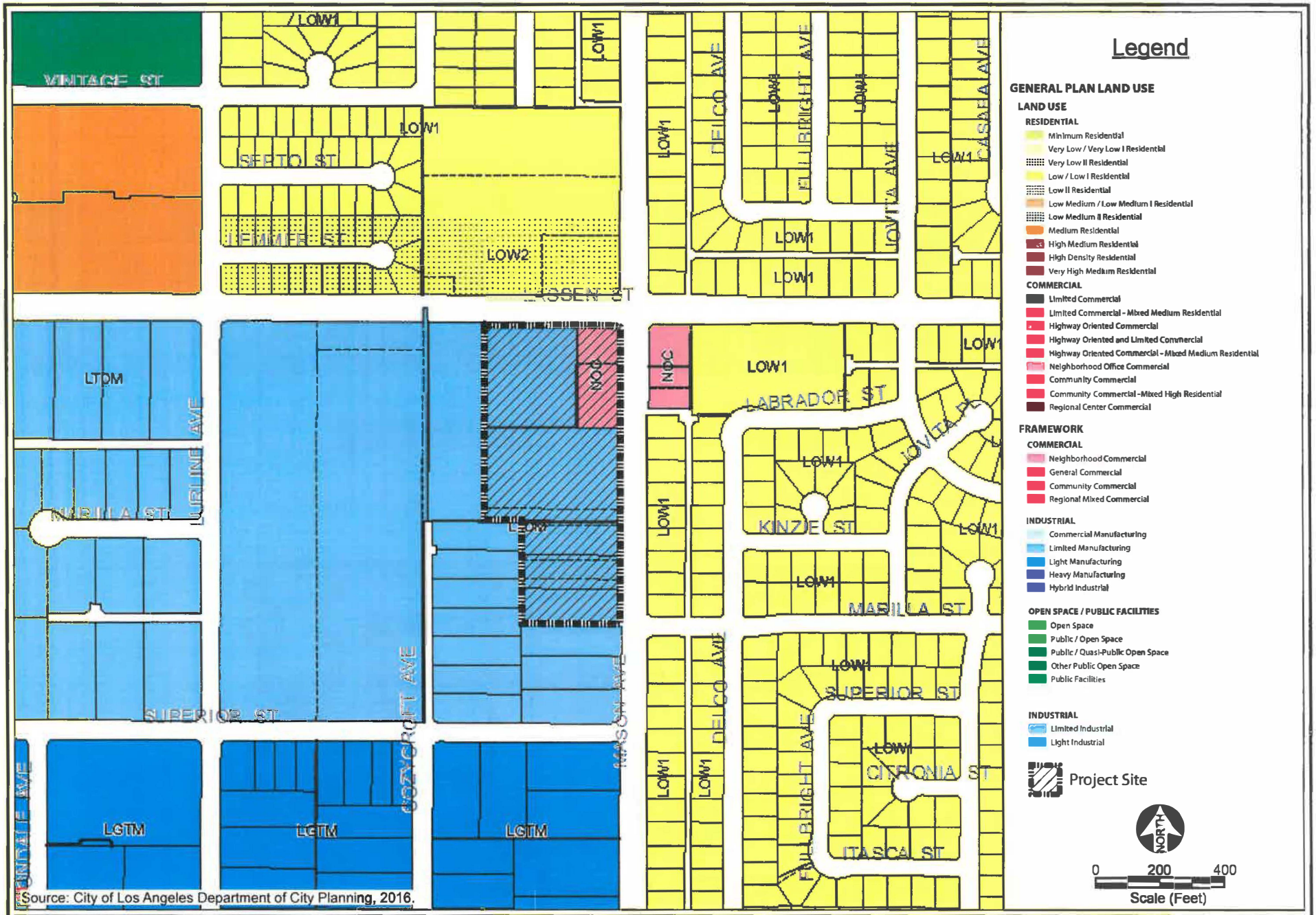
Figure II-2
Aerial Photo of the Project Site



Source: City of Los Angeles Department of City Planning, 2016.

CAJA Environmental Services, LLC

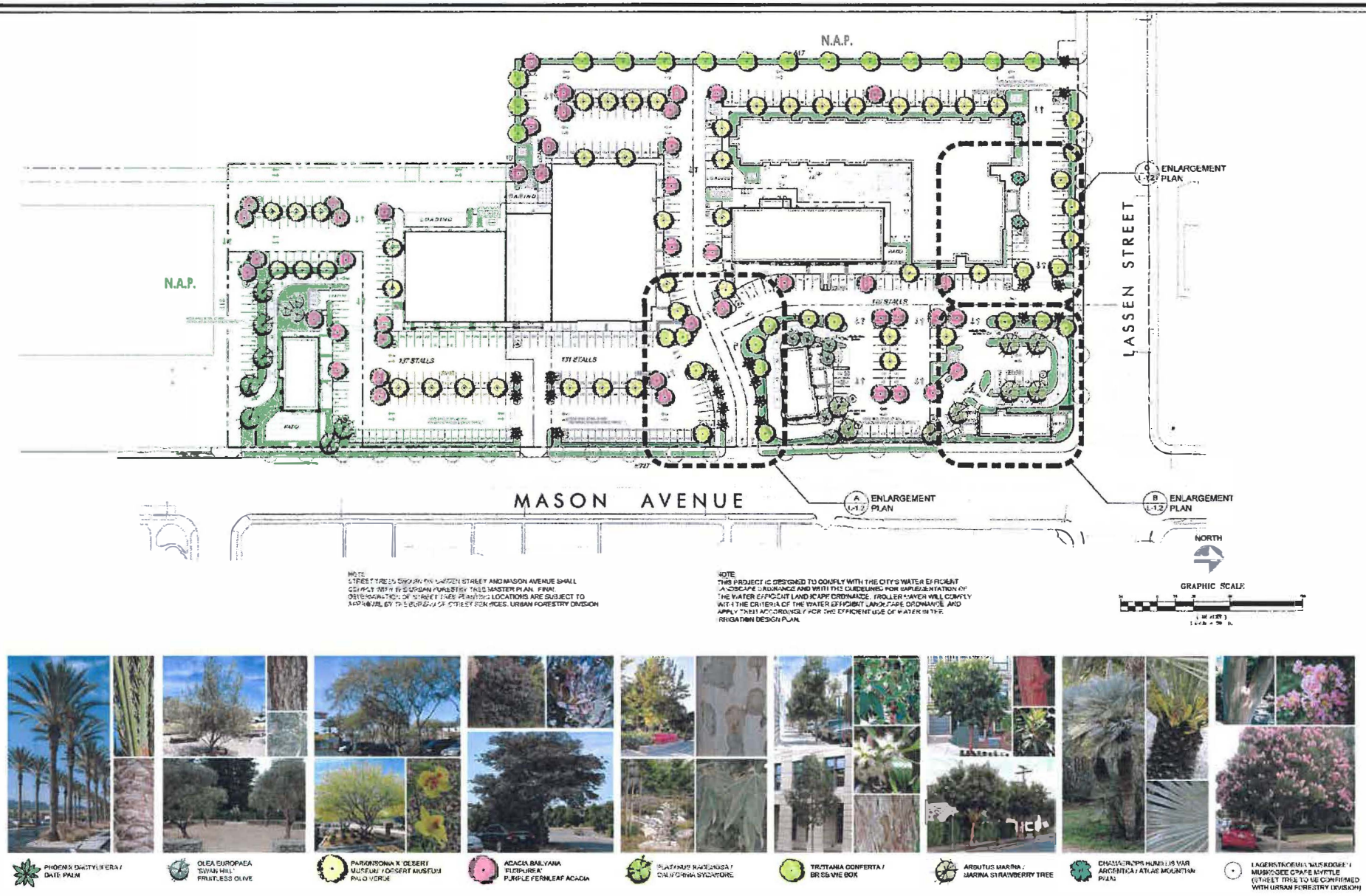
Figure II-3
Existing Zoning



Source: City of Los Angeles Department of City Planning, 2016.

CAJA Environmental Services, LLC

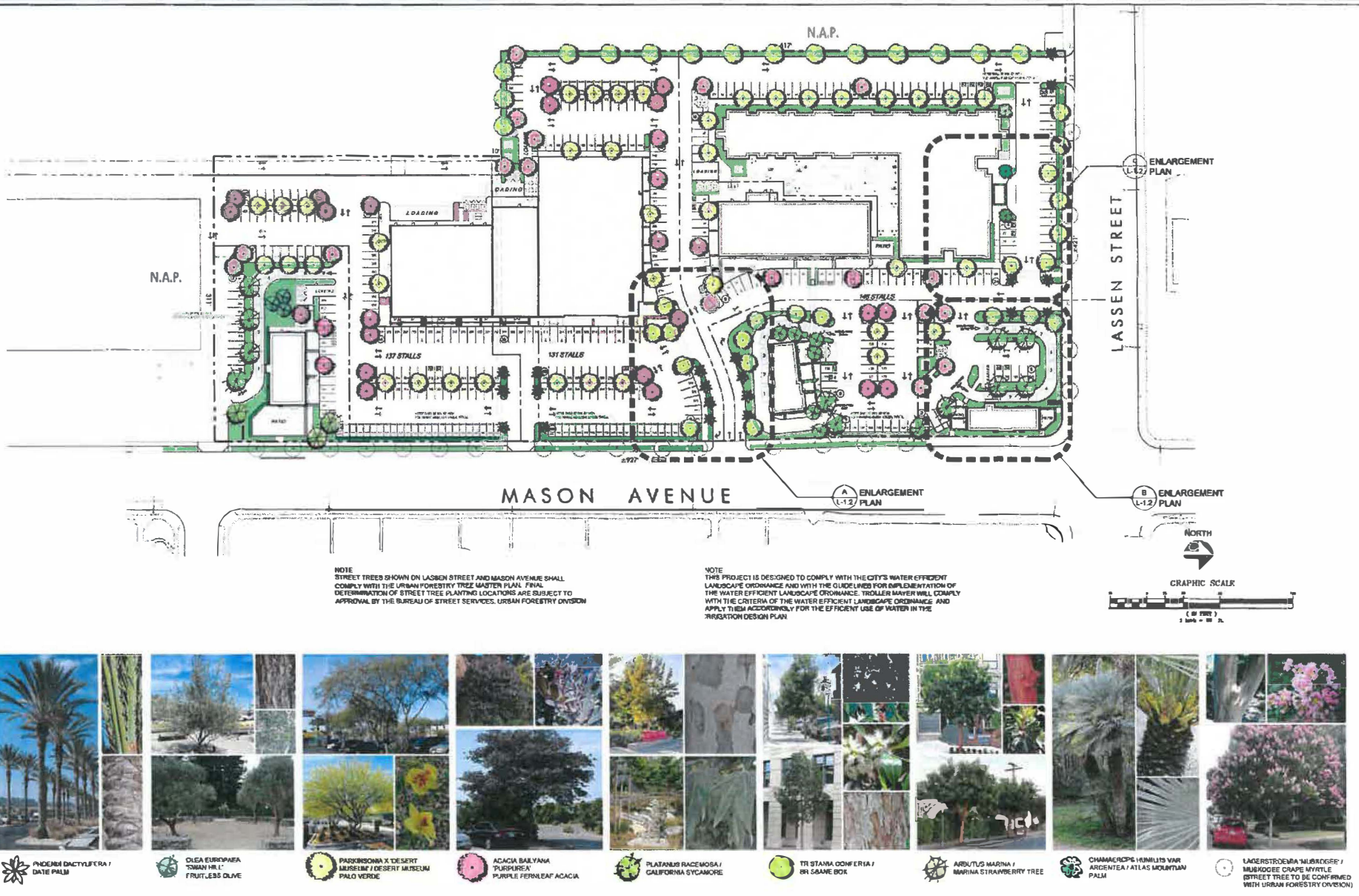
Figure II-4
Existing Land Use Designation



Source: Troller Mayer Associates, Inc. and McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-6
Landscape Plan



Source: Troller Mayer Associates, Inc. and McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

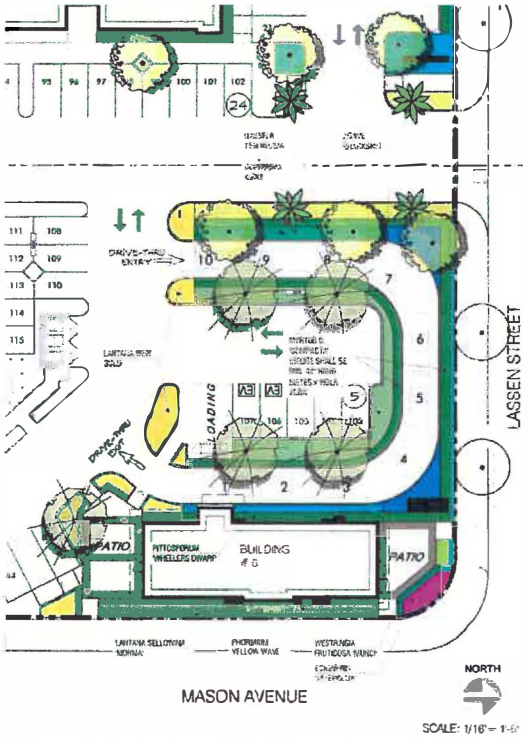
Figure II-6
Landscape Plan



ENLARGEMENT PLAN

Vehicular Entrance from Mason Avenue	A

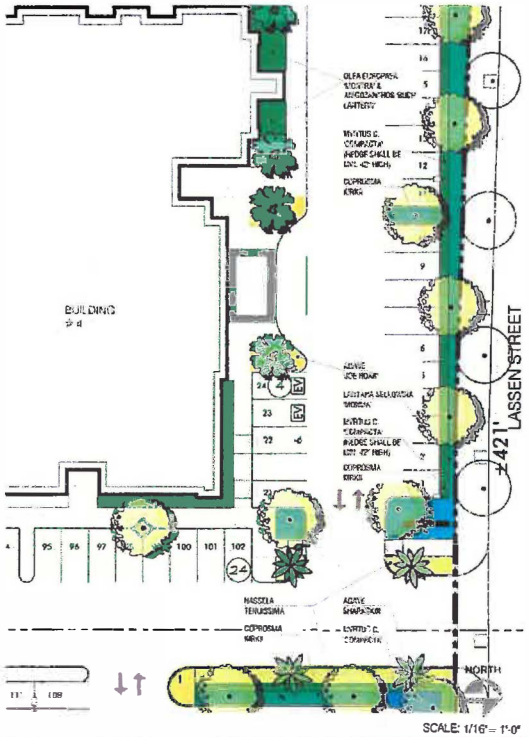




ENLARGEMENT PLAN

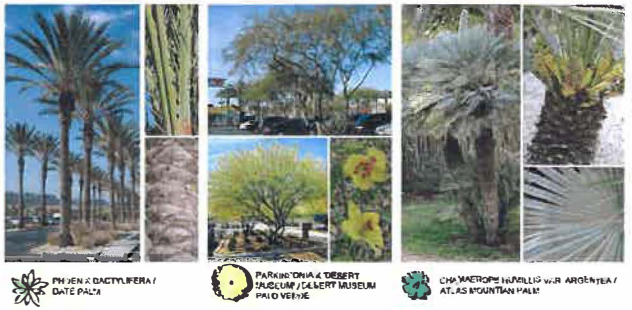
Vehicular Entrance from Lassen Street	B





ENLARGEMENT PLAN

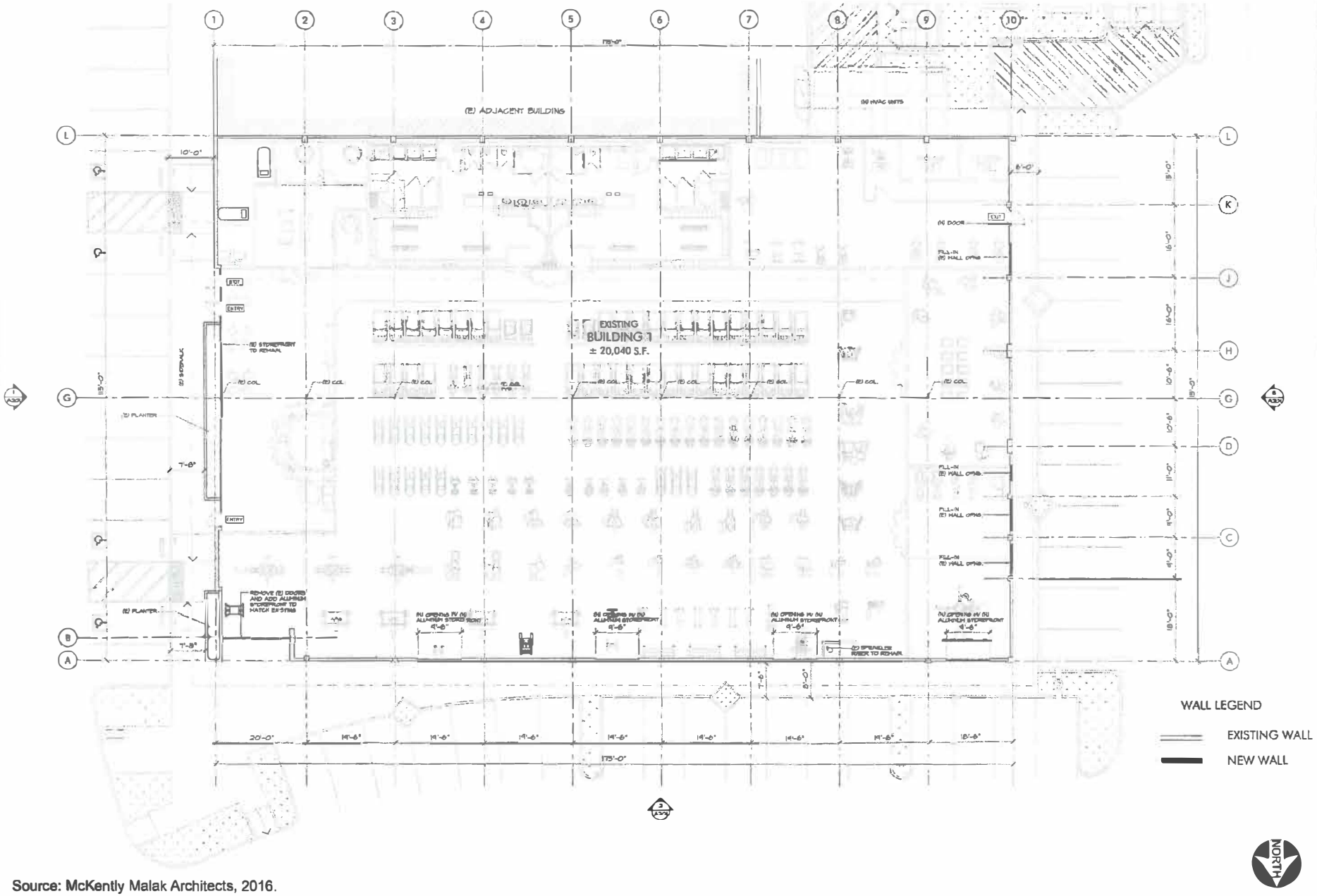
Corner of Mason Avenue & Lassen Street	C



Source: Troller Mayer Associates, Inc. and McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

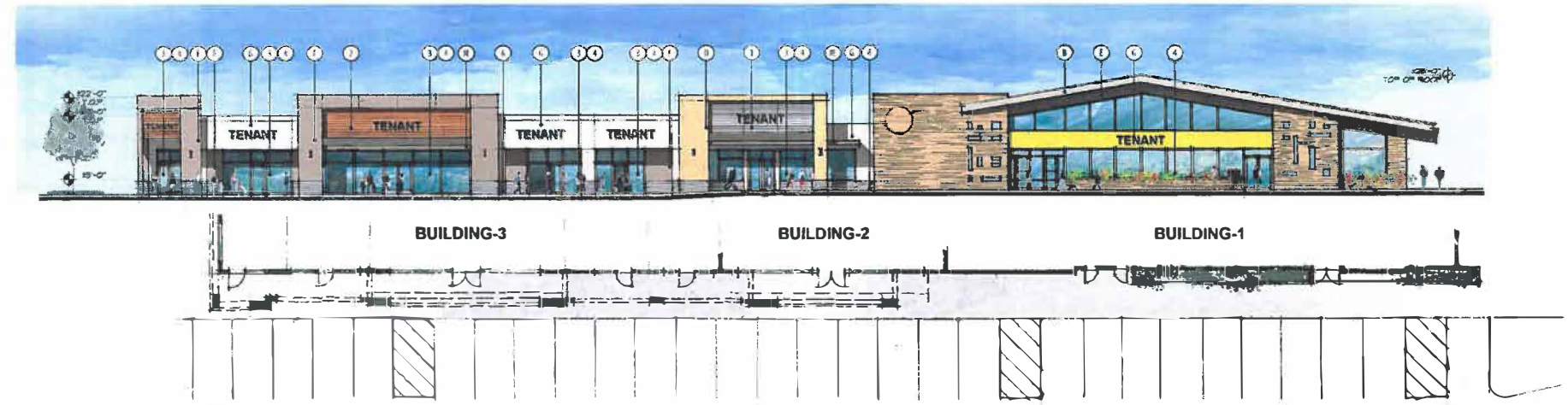
Figure II-7
Enlargement Plans



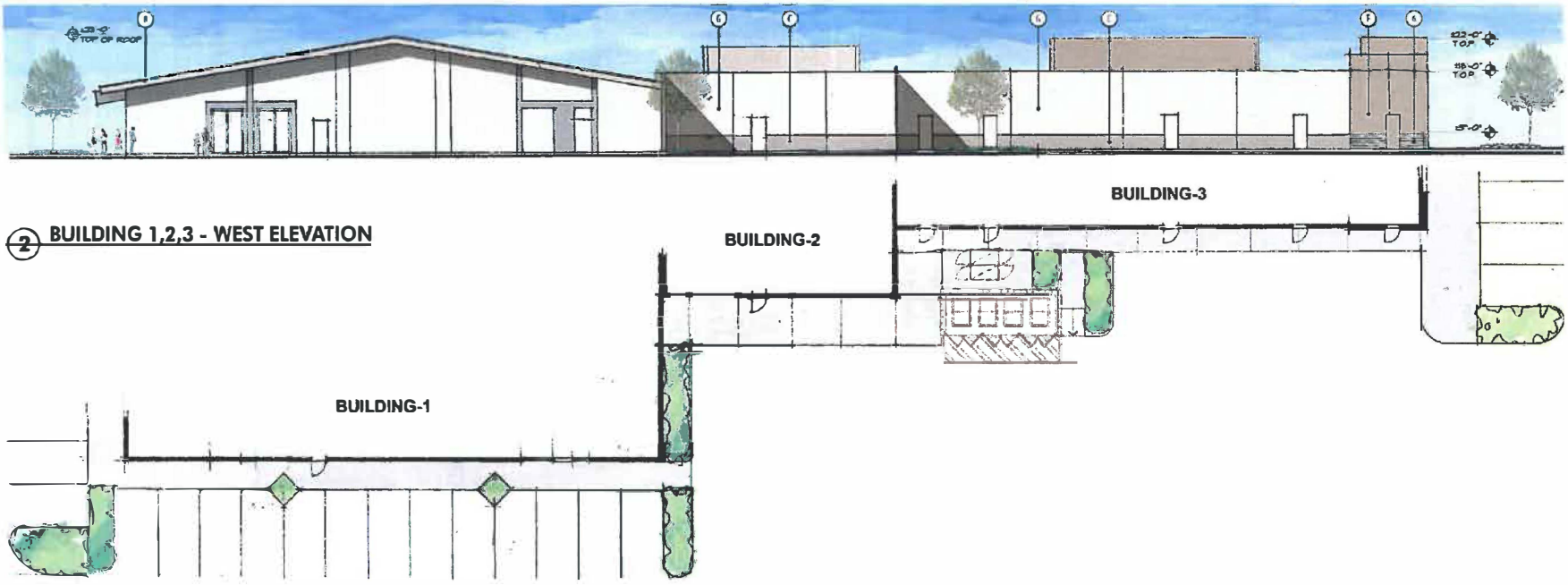
Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-8
Existing/Proposed Floor Plan (Building 1)



1 BUILDING 1,2,3 - EAST ELEVATION



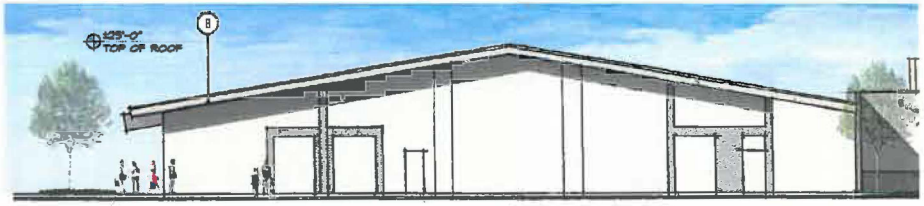
2 BUILDING 1,2,3 - WEST ELEVATION

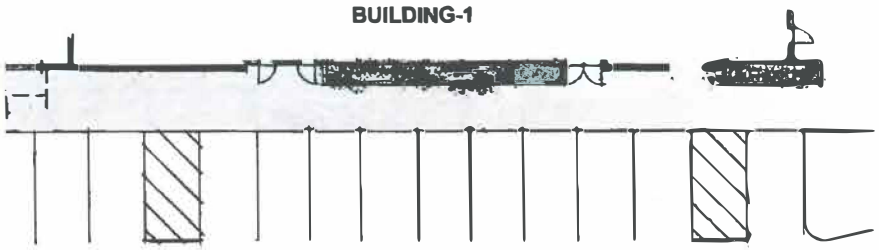
Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

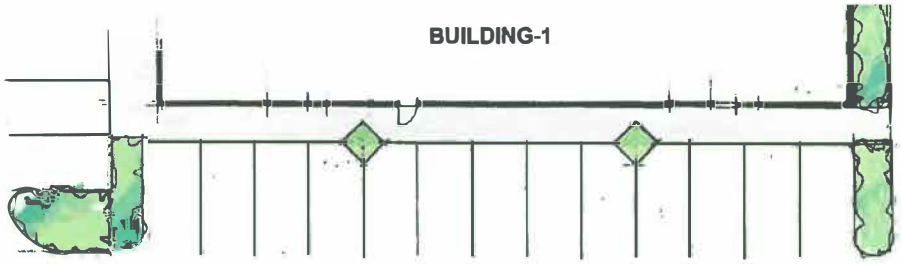
Figure II-9
Overall Elevations



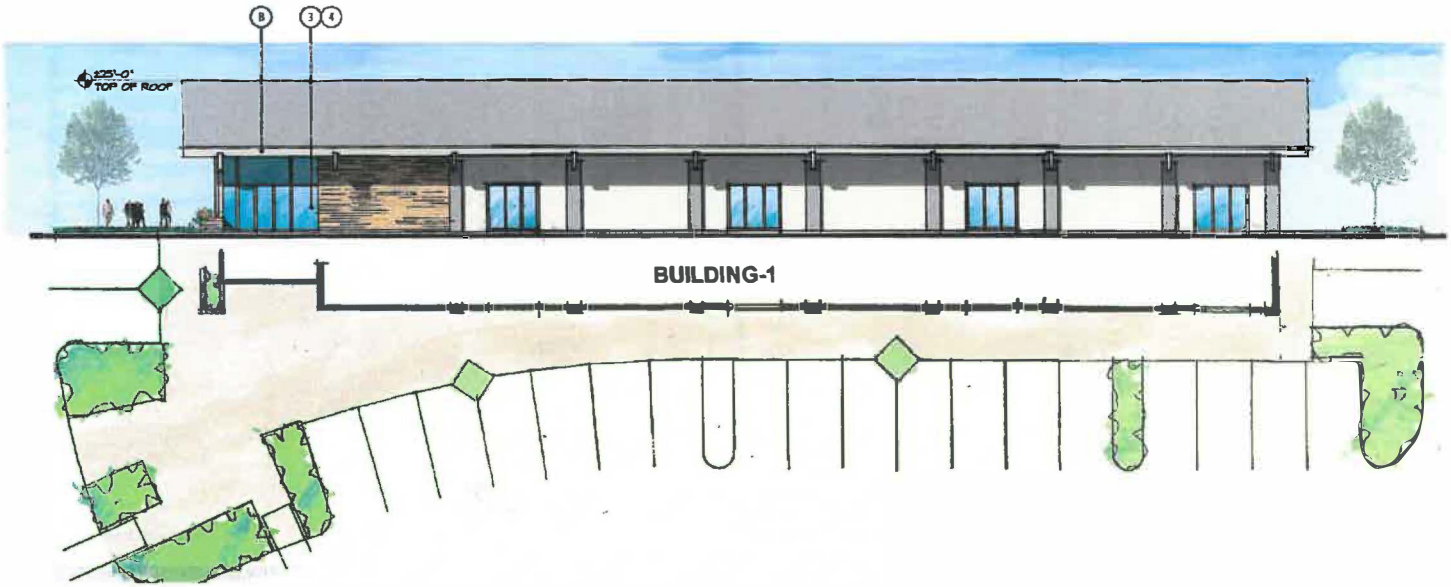




1 EAST ELEVATION



2 WEST ELEVATION

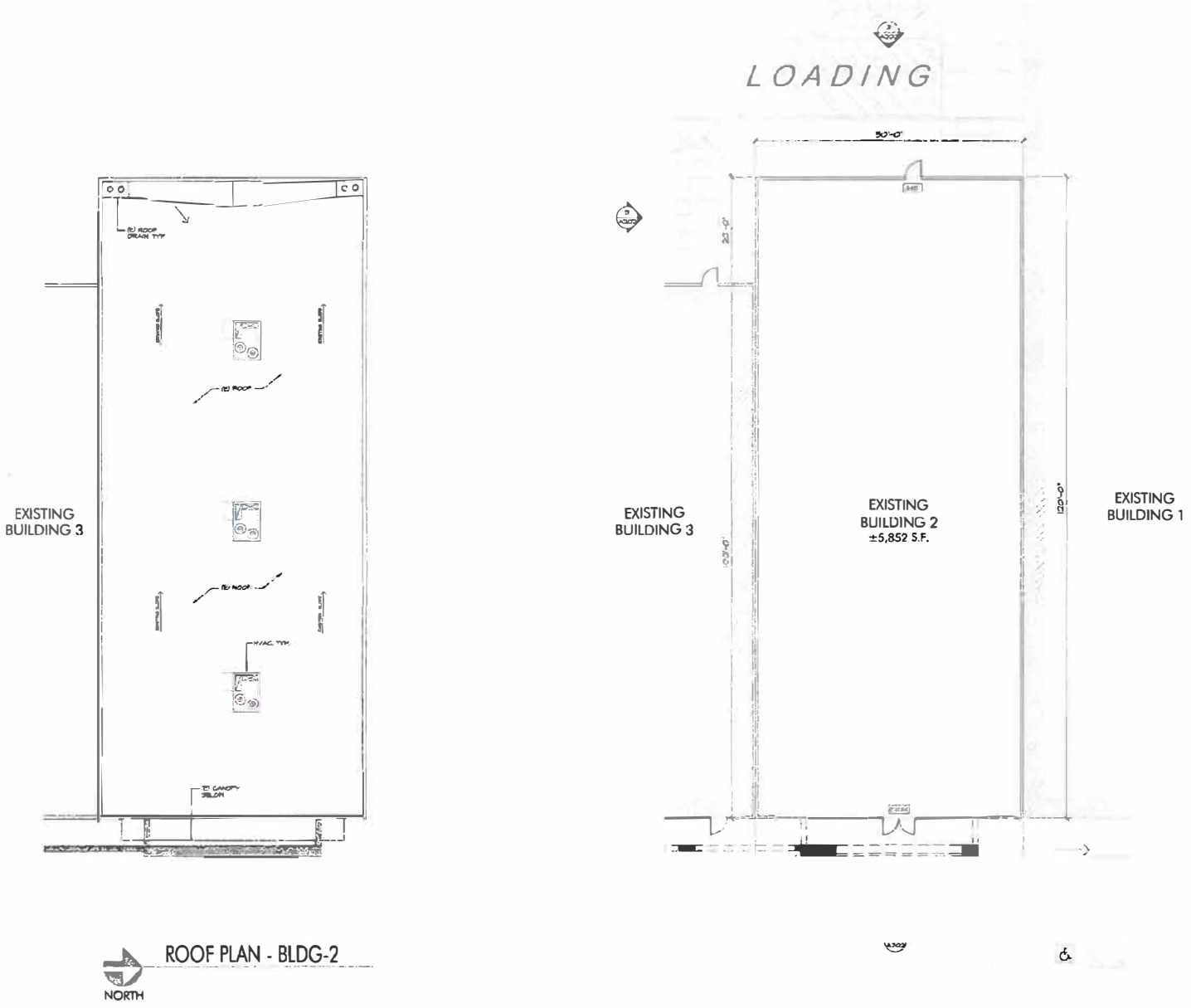


3 NORTH ELEVATION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

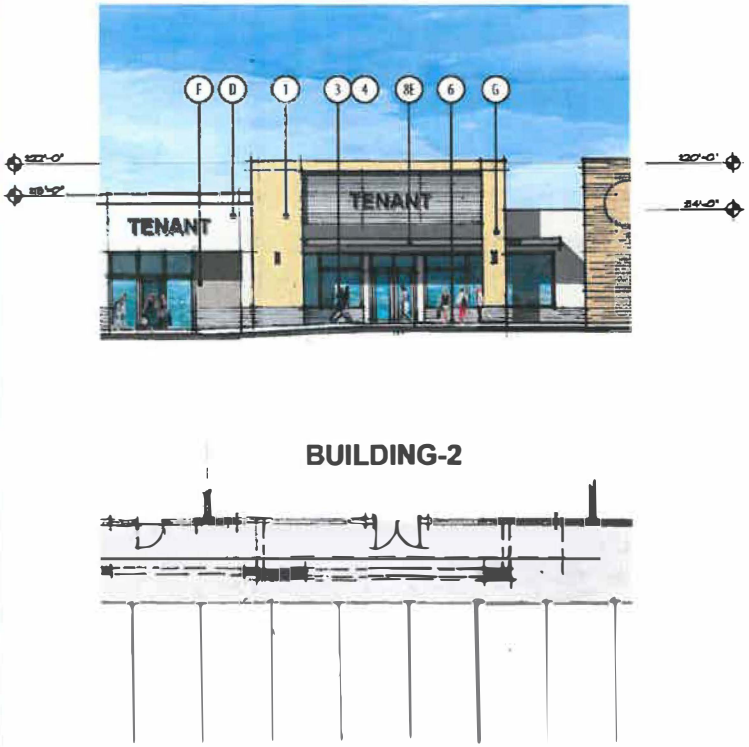
Figure II-10
Building 1 Elevations



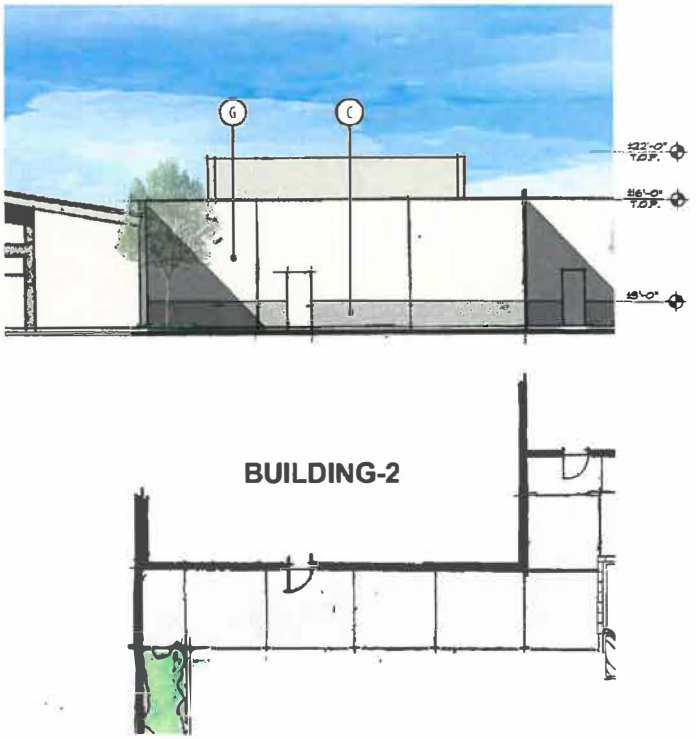
Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-11
Existing/Proposed Floor & Roof Plan (Building 2)



1 EAST ELEVATION

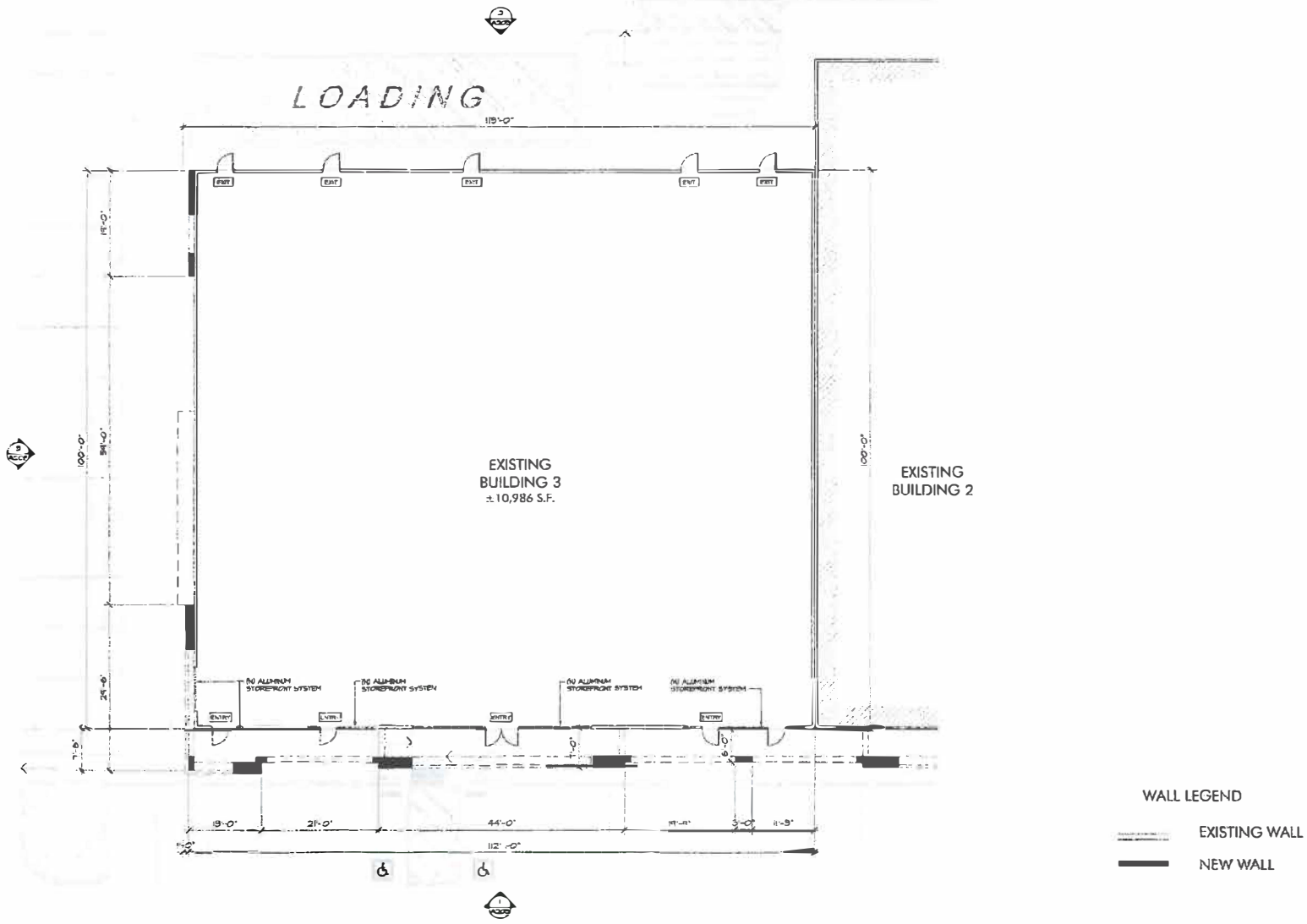


2 WEST ELEVATION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

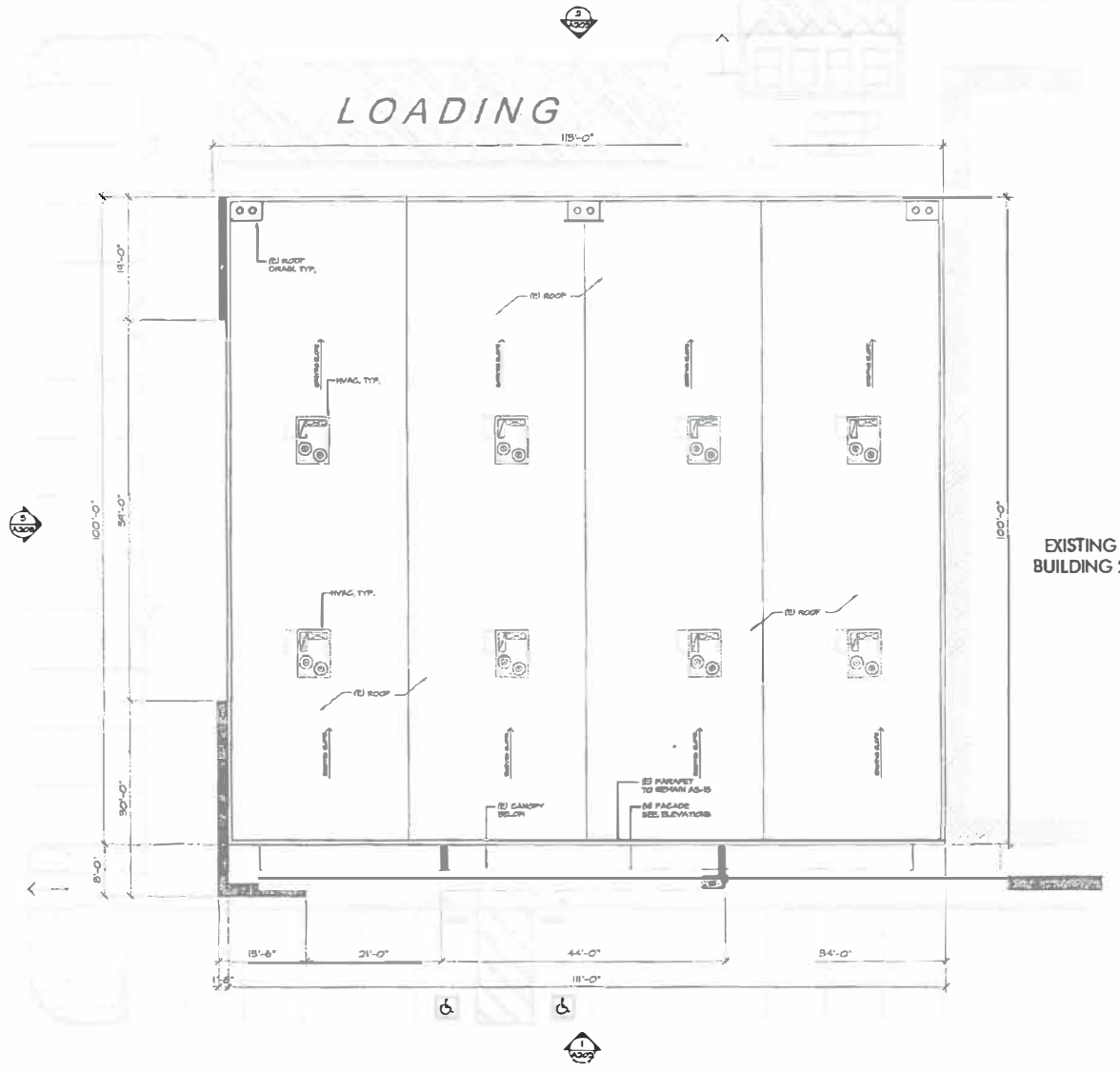
Figure II-12
Building 2 Elevations



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-13
Existing/Proposed Floor Plan (Building 3)



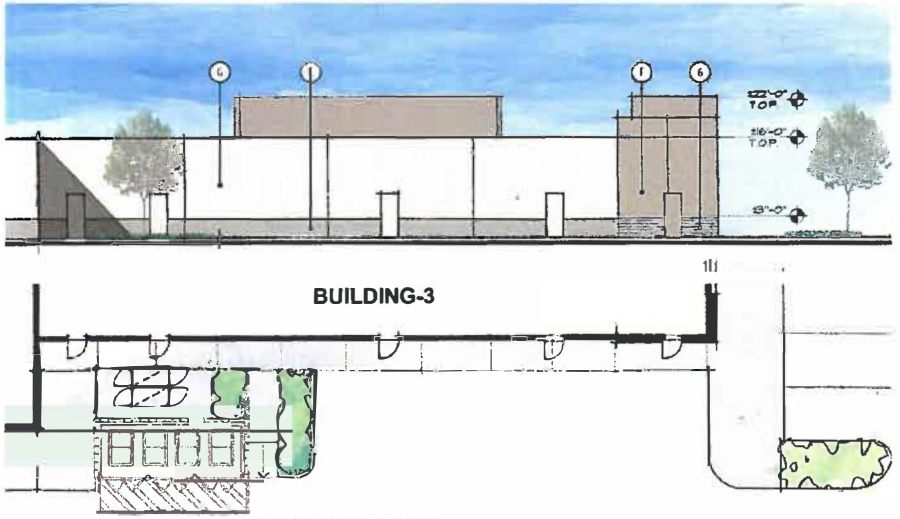
Source: McKenzie Malak Architects, 2016.

CAJA Environmental Services, LLC

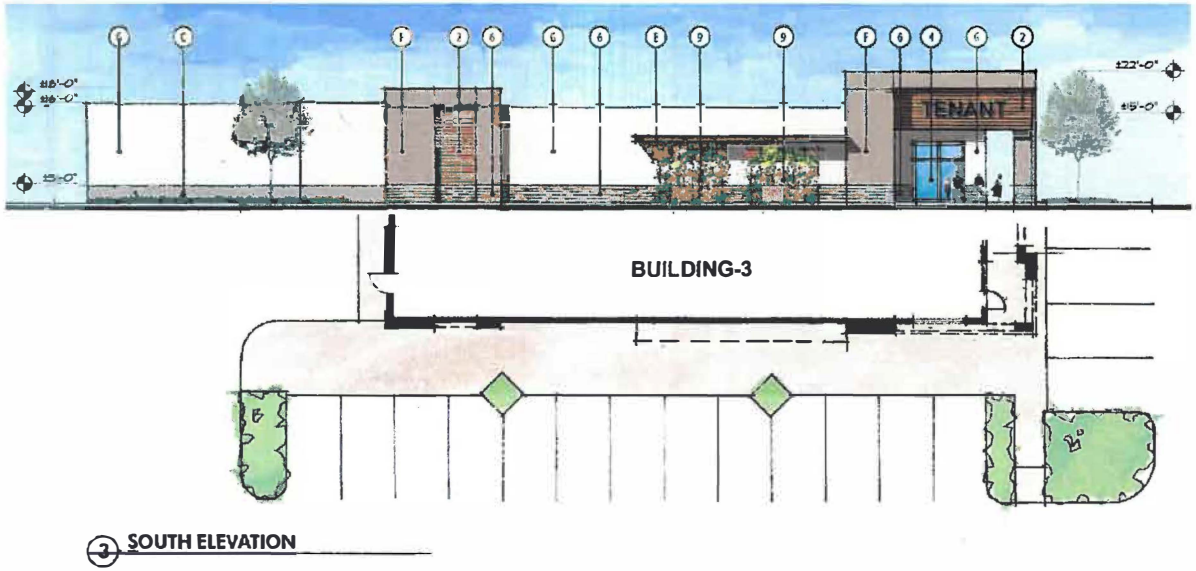
Figure II-14
Existing/Proposed Roof Plan (Building 3)



1 EAST ELEVATION



2 WEST ELEVATION

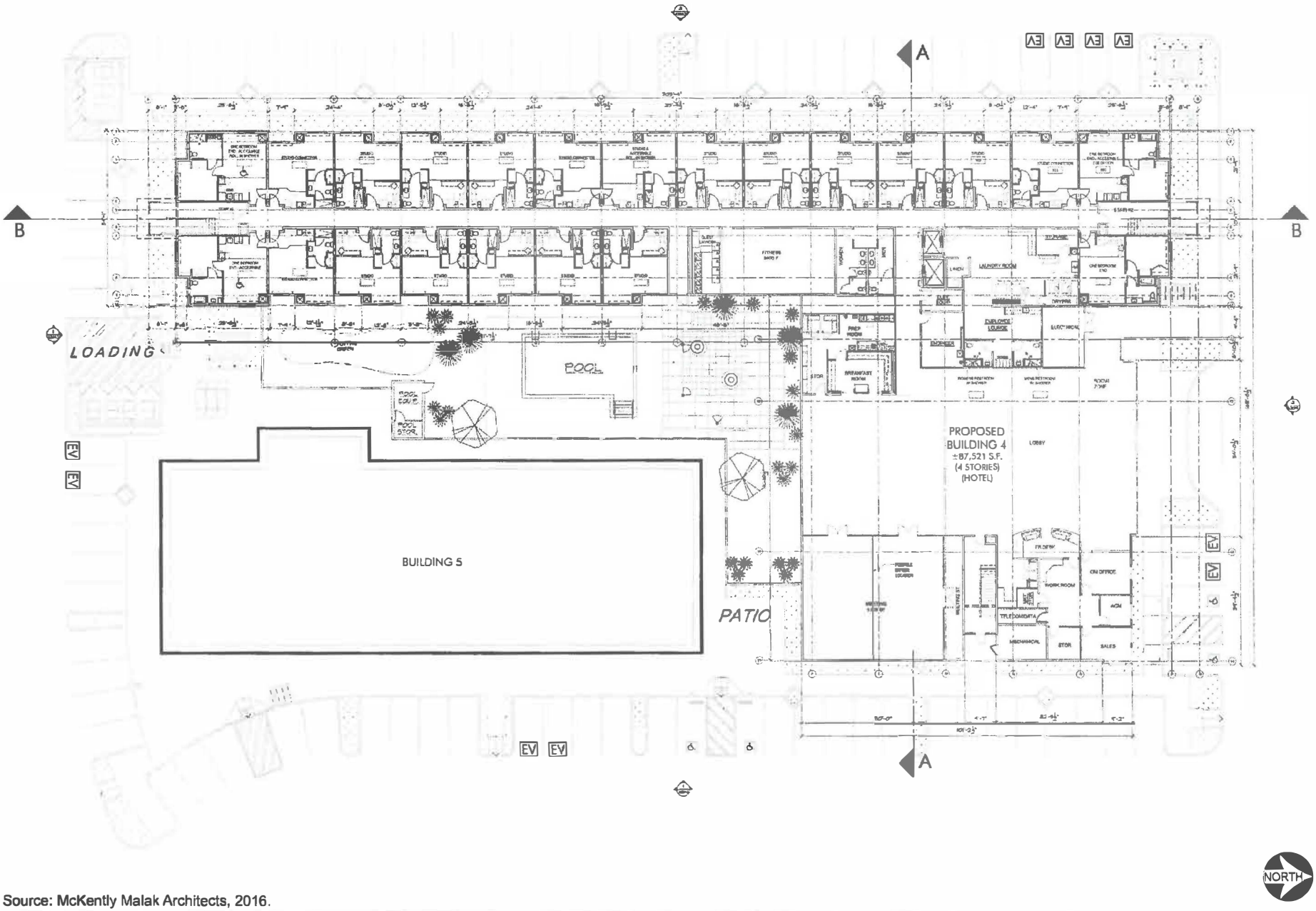


3 SOUTH ELEVATION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

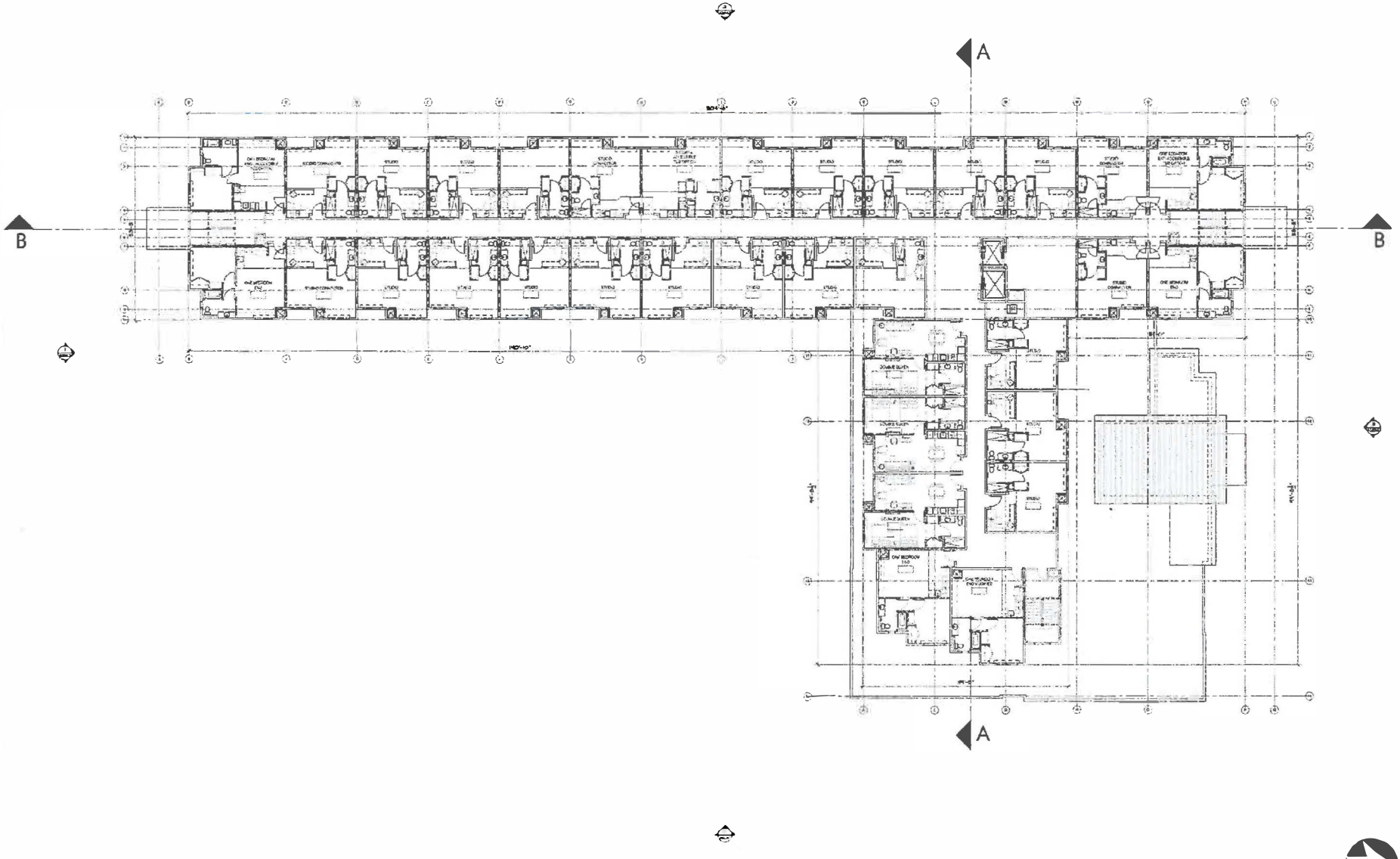
Figure II-15
Building 3 Elevations



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

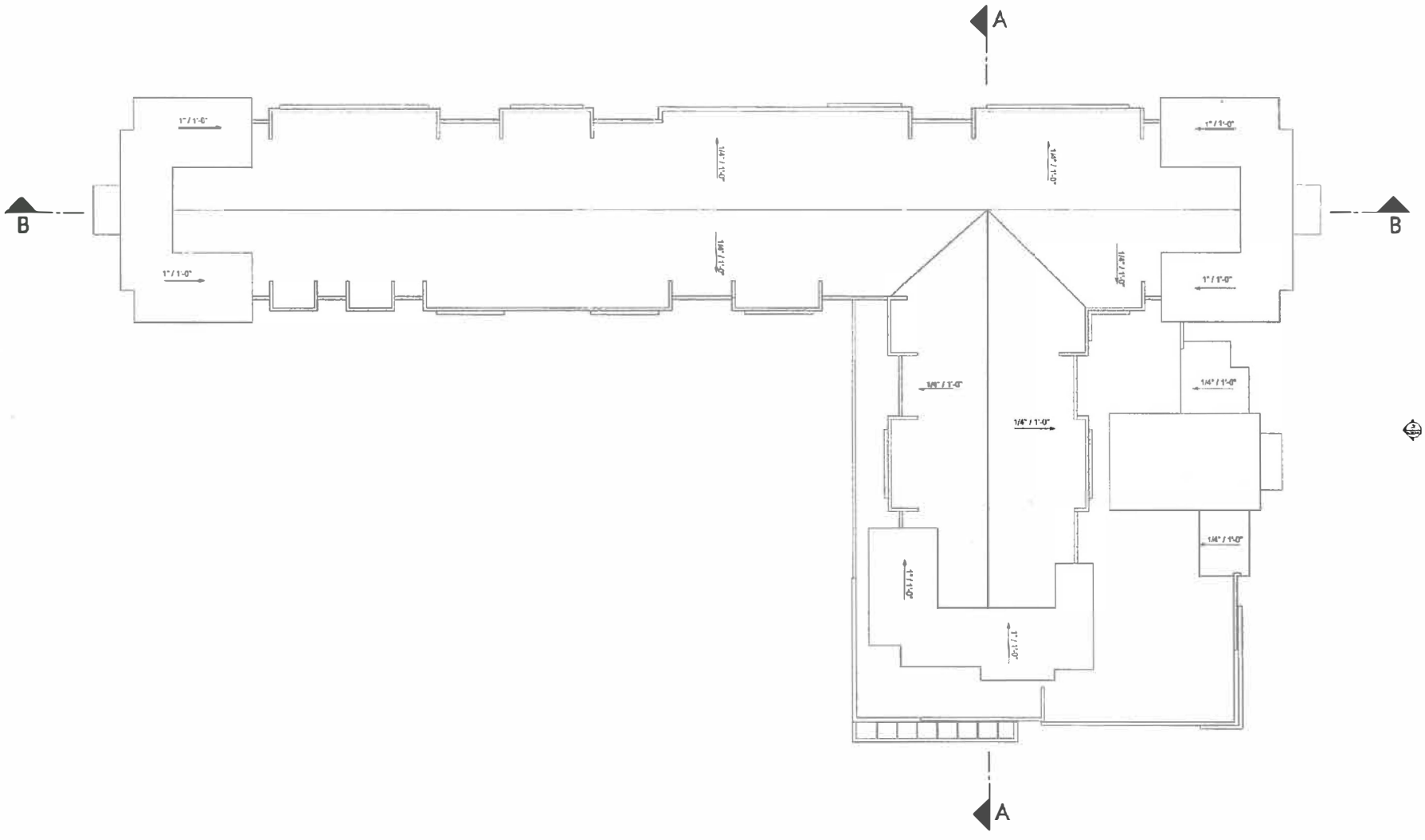
Figure II-16
Proposed Floor Plan (Building 4)



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

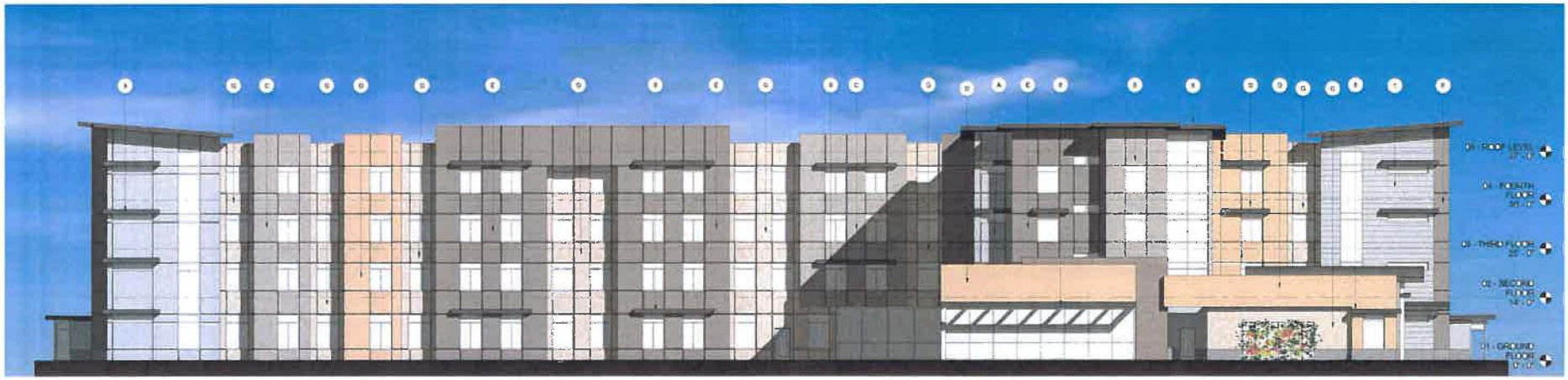
Figure II-17
Proposed Floor Plan Typical 2nd-4th Floor



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-18
Proposed Roof Plan (Building 4)



EAST ELEVATION



NORTH ELEVATION



Source: McKenny Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-19
Building 4 East and North Elevations



2 WEST ELEVATION



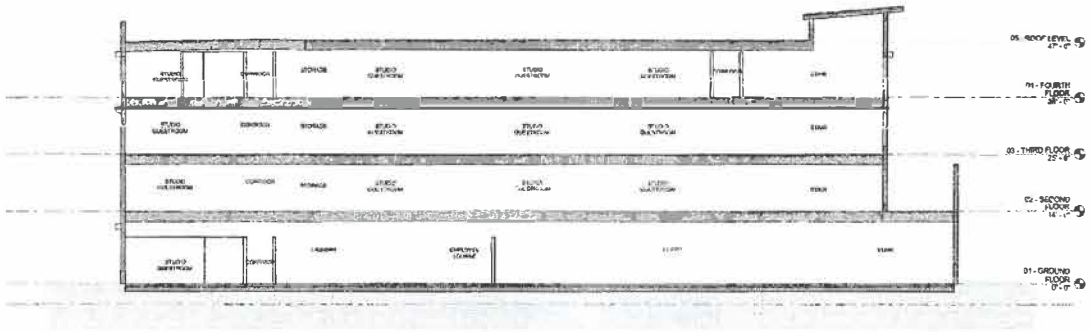
1 SOUTH ELEVATION



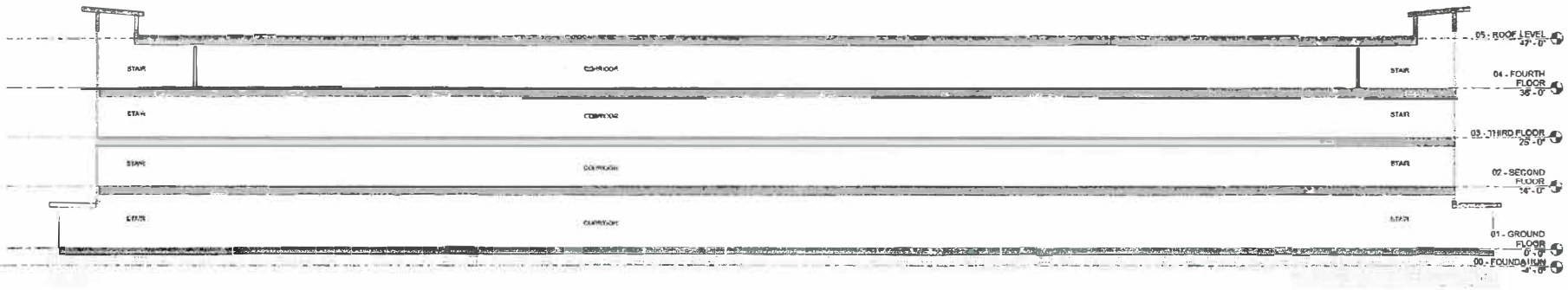
Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-20
Building 4 West and South Elevations



A BUILDING SECTION

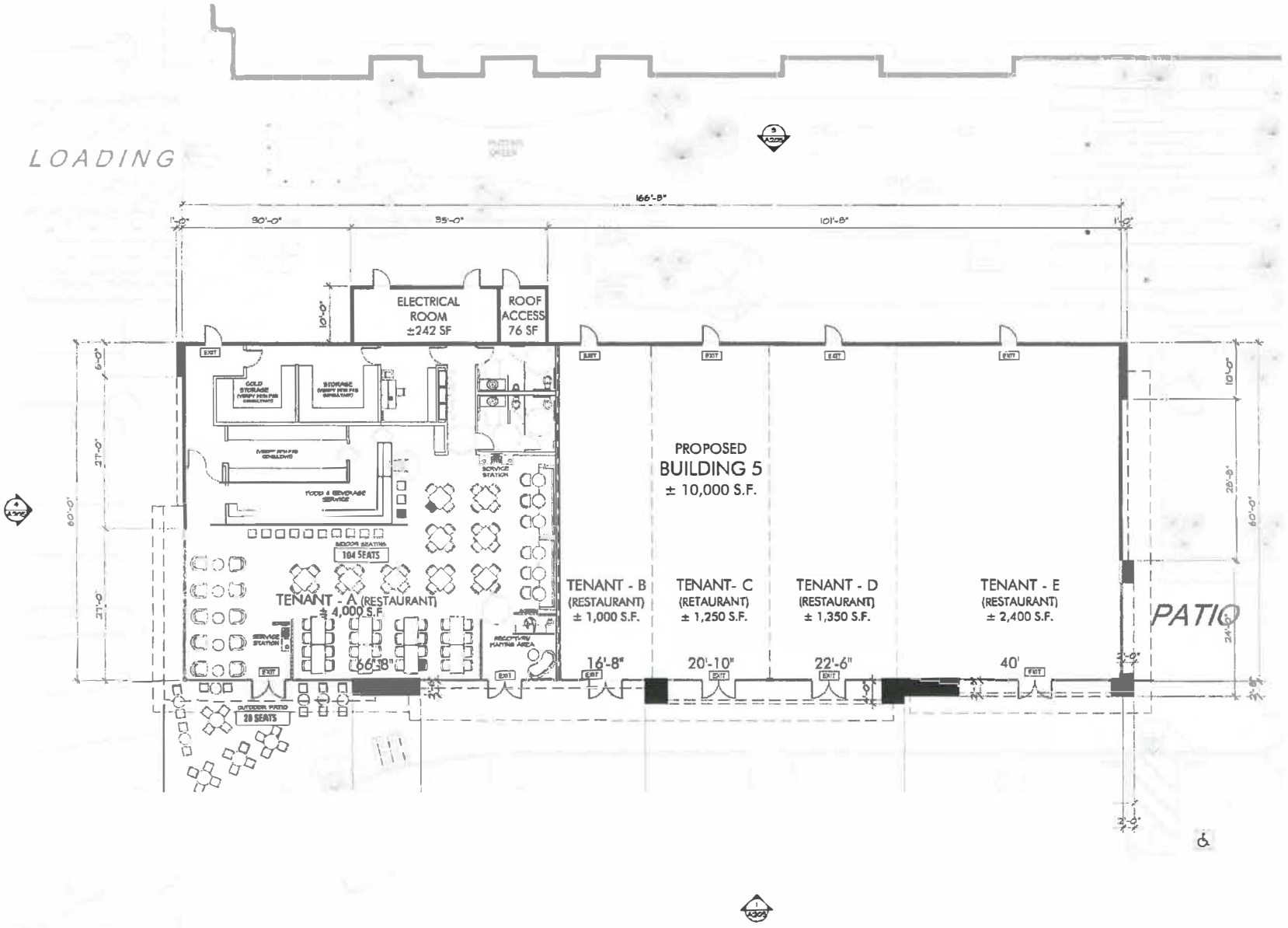


B BUILDING SECTION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

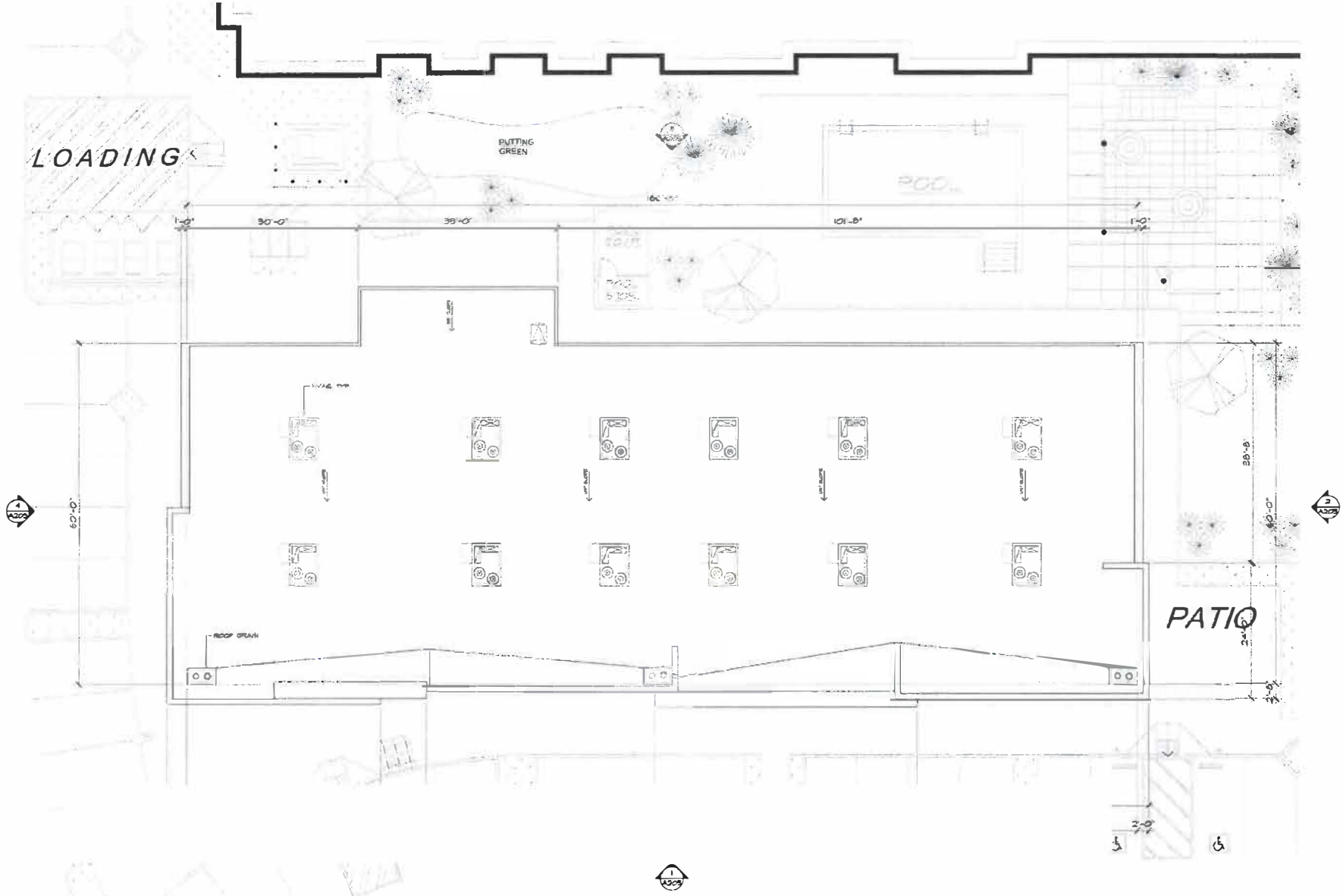
Figure II-21
Proposed Building 4 Sections



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

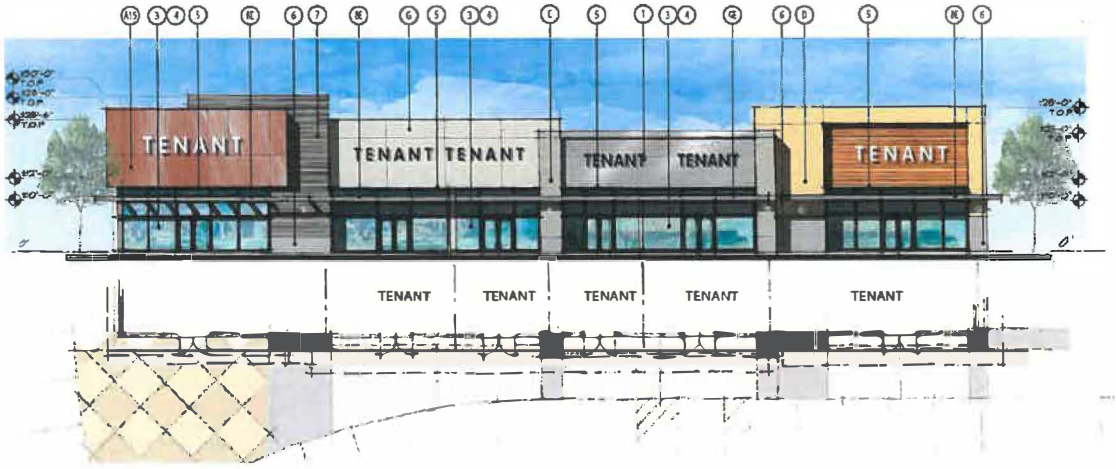
Figure II-22
Proposed Floor Plan (Building 5)



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

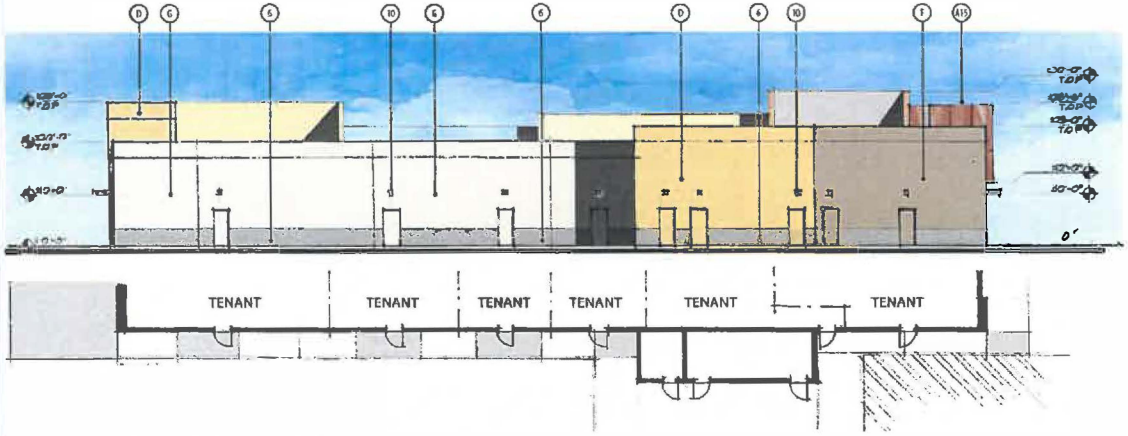
Figure II-23
Proposed Roof Plan (Building 5)



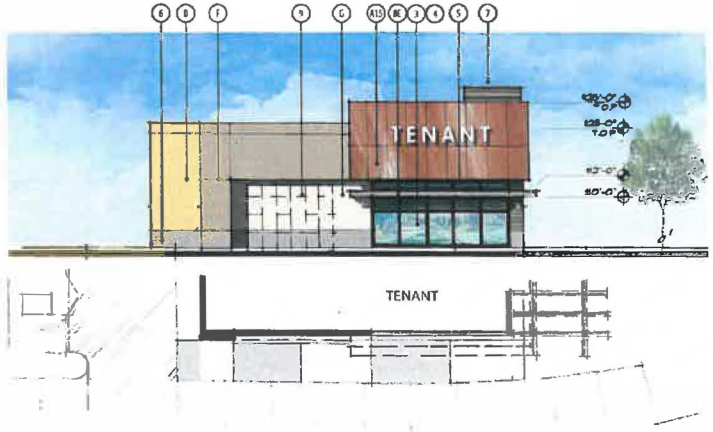
1 EAST ELEVATION



2 NORTH ELEVATION



3 WEST ELEVATION

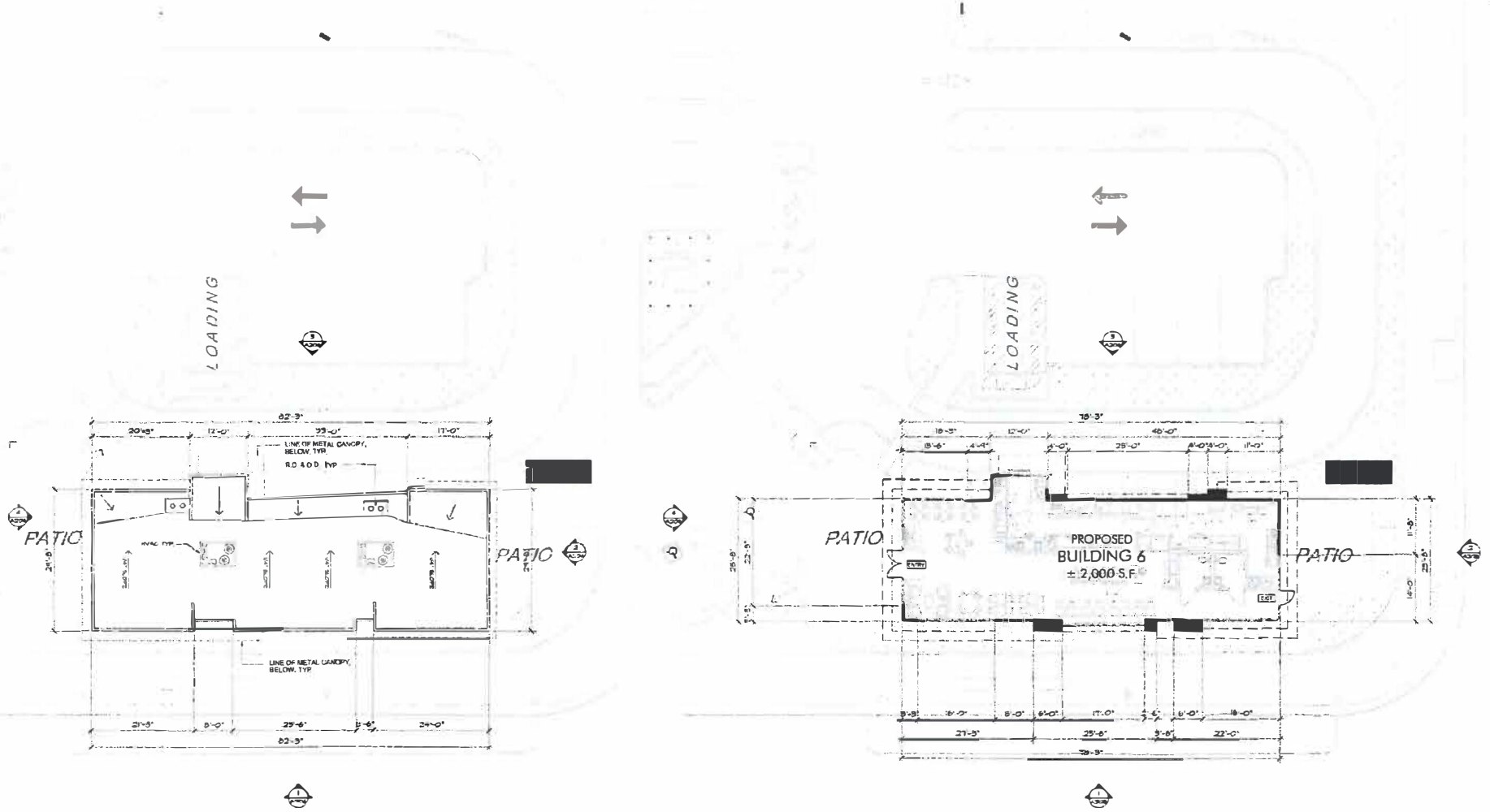


4 SOUTH ELEVATION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

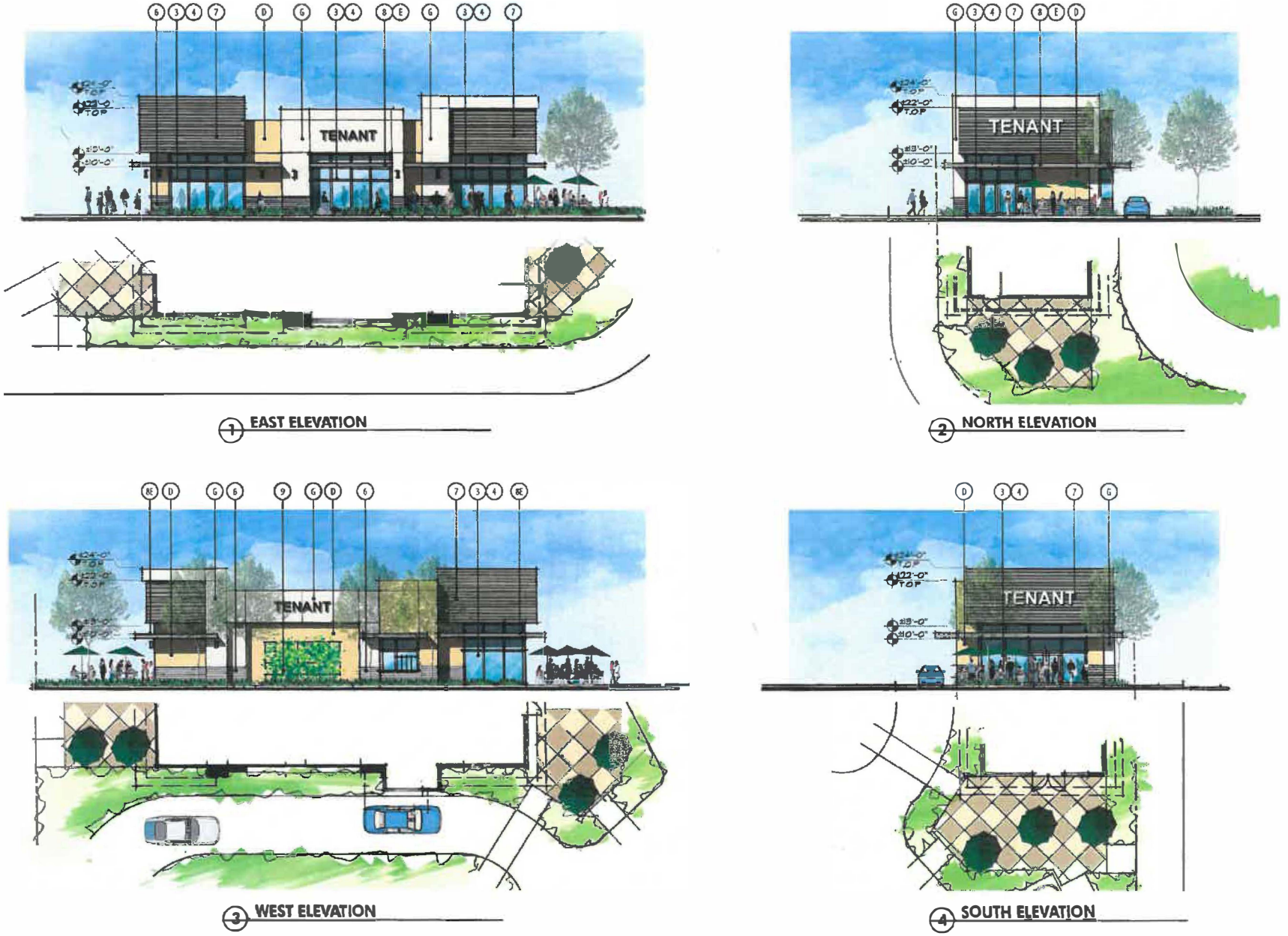
Figure II-24
Building 5 Elevations



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

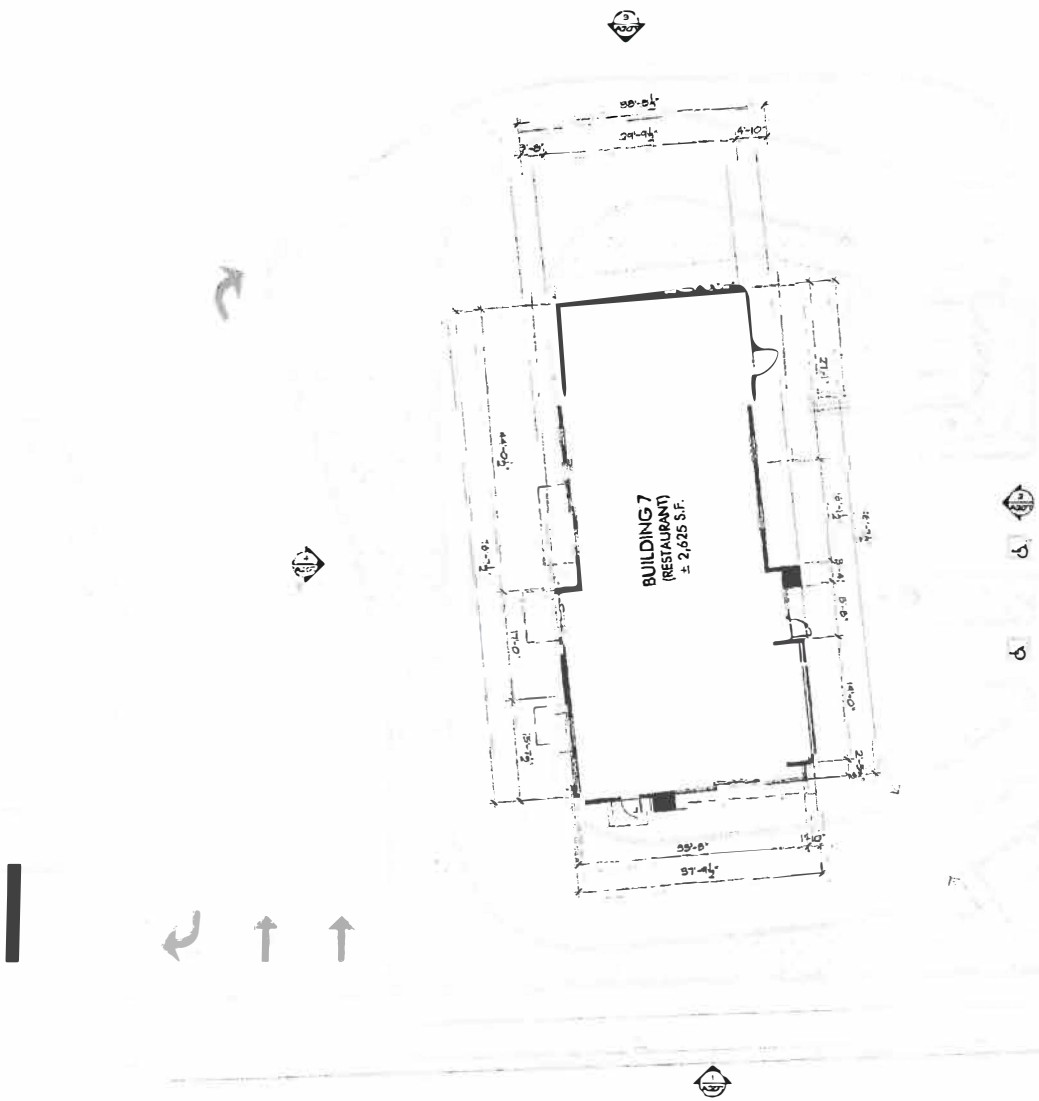
Figure II-25
Proposed Floor & Roof Plan (Building 6)



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

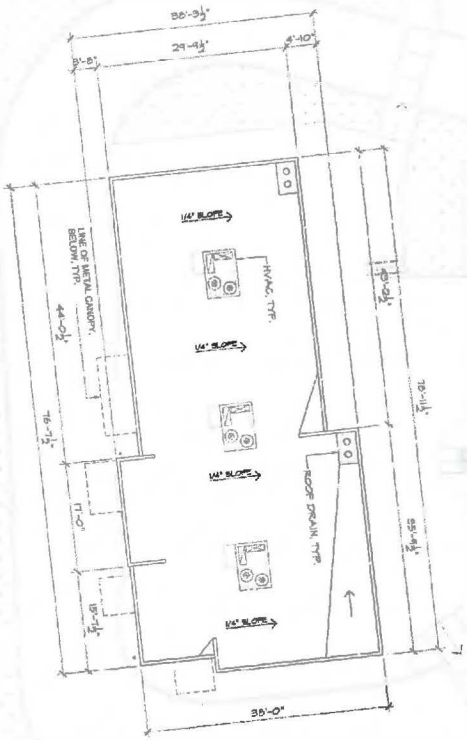
Figure II-26
Building 6 Elevations



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-27
Proposed Floor Plan (Building 7)



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

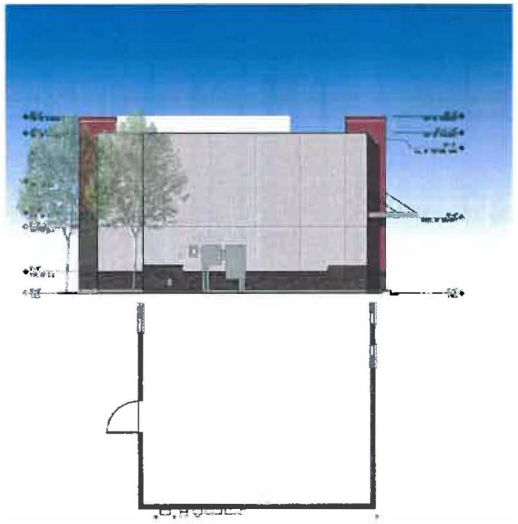
Figure II-28
Proposed Roof Plan (Building 7)



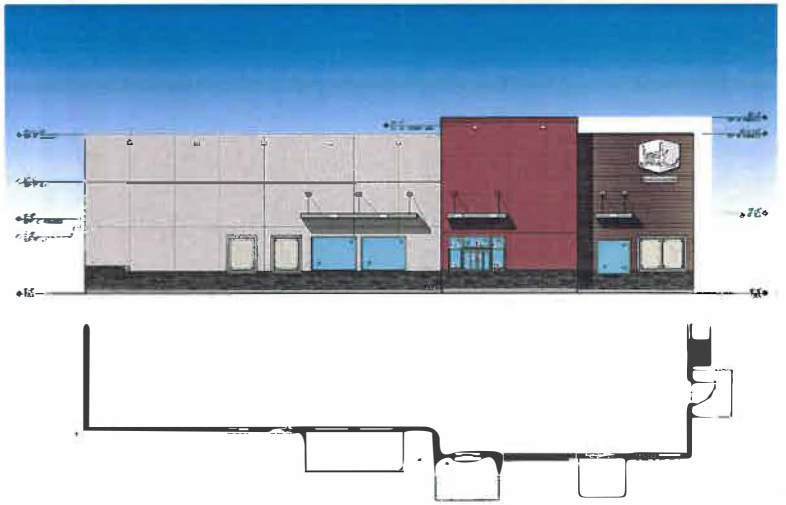
1 EAST ELEVATION



2 NORTH ELEVATION



3 WEST ELEVATION

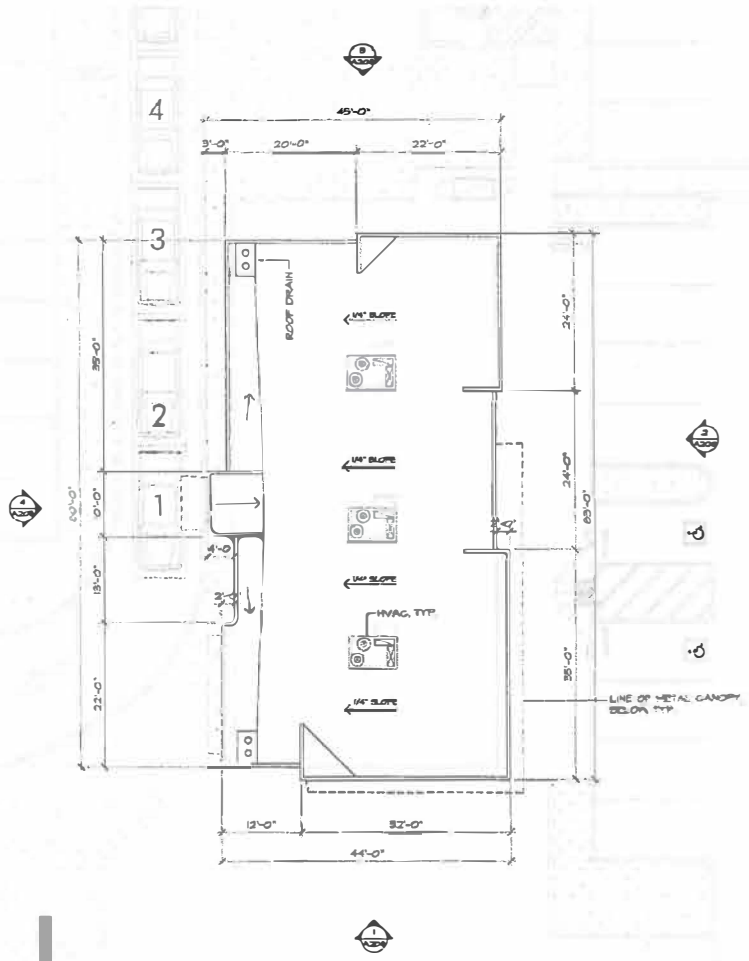


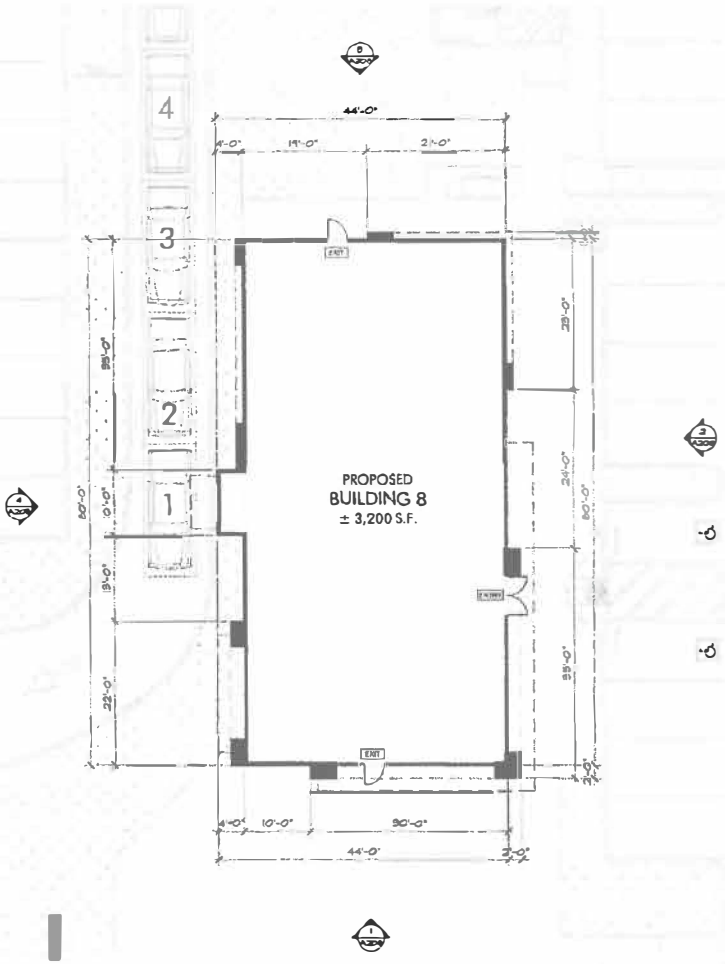
4 SOUTH ELEVATION

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-29
Building 7 Elevations



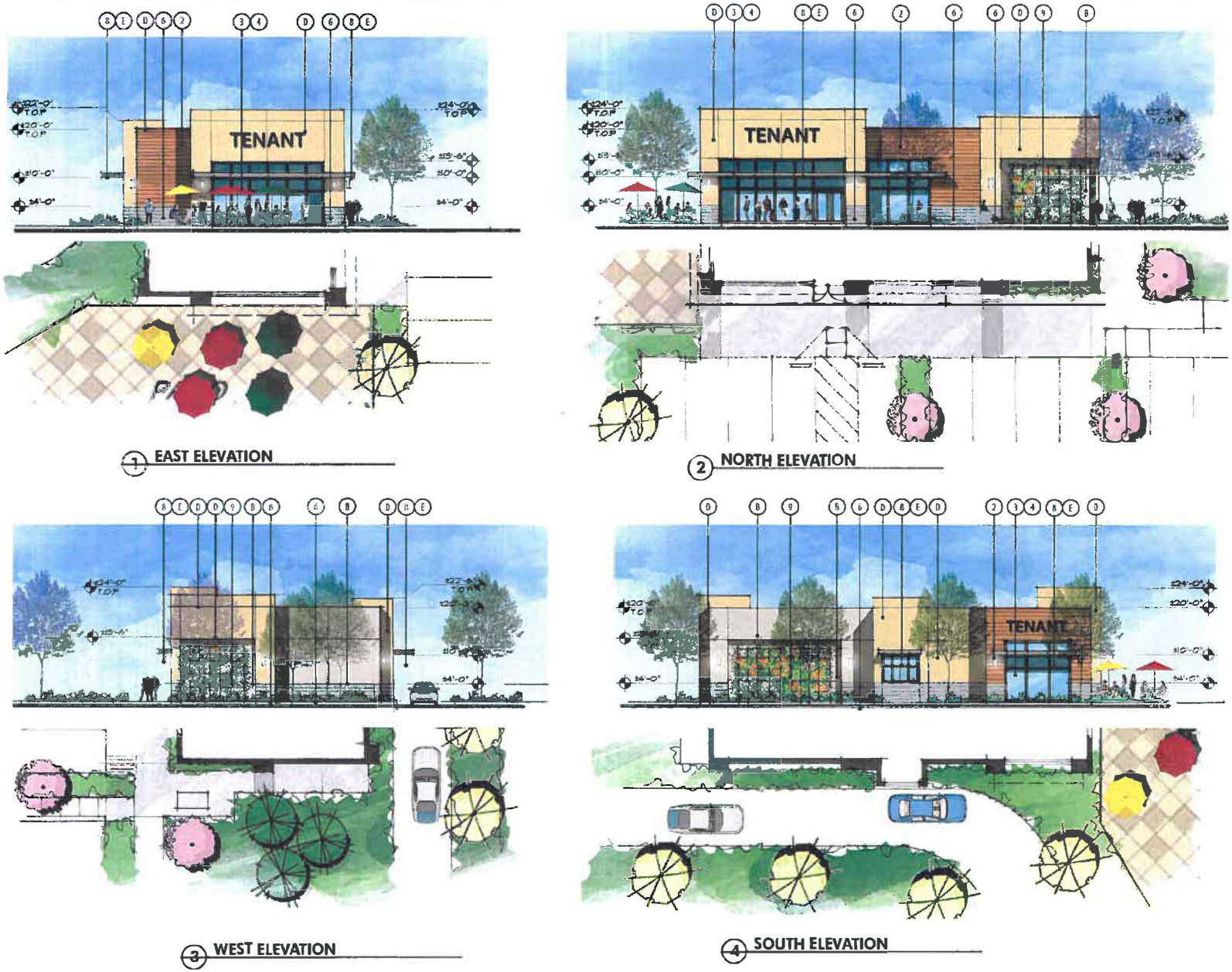




Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

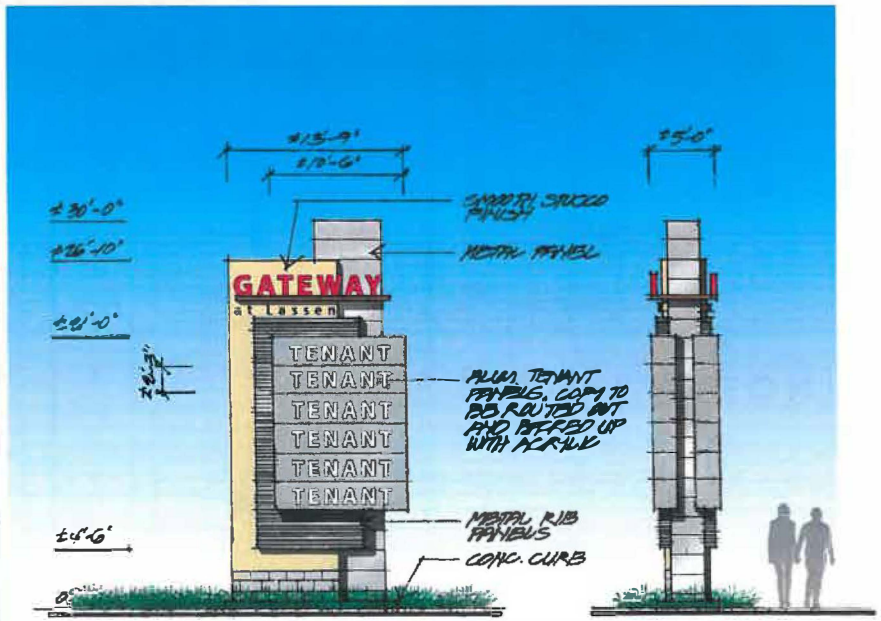
Figure II-30
Proposed Floor Roof Plan (Building 8)



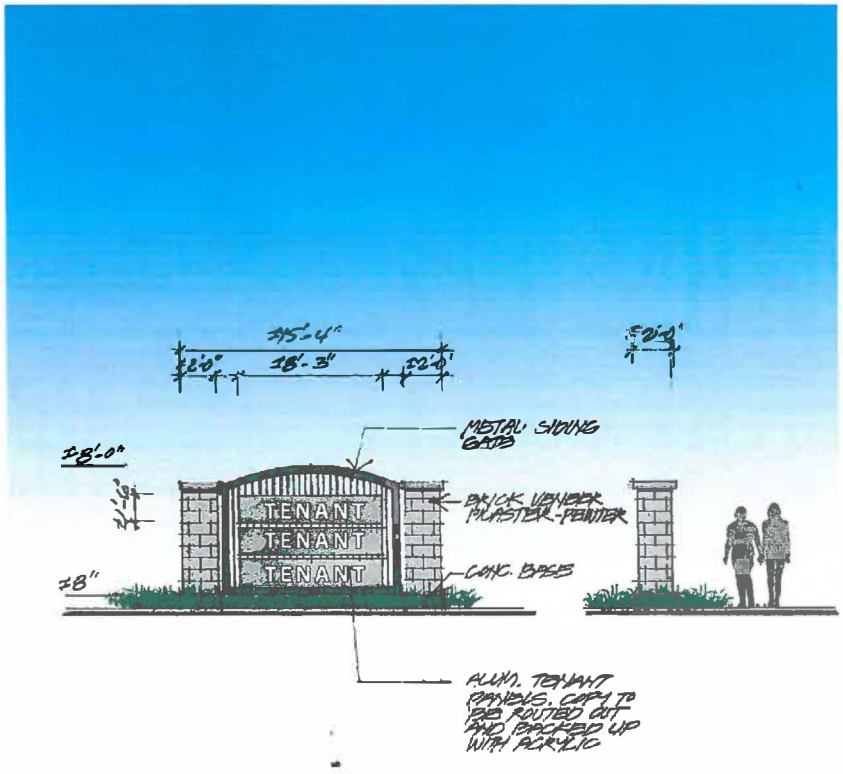
Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-31
Building 8 Elevations



1 **PYLON SIGN**

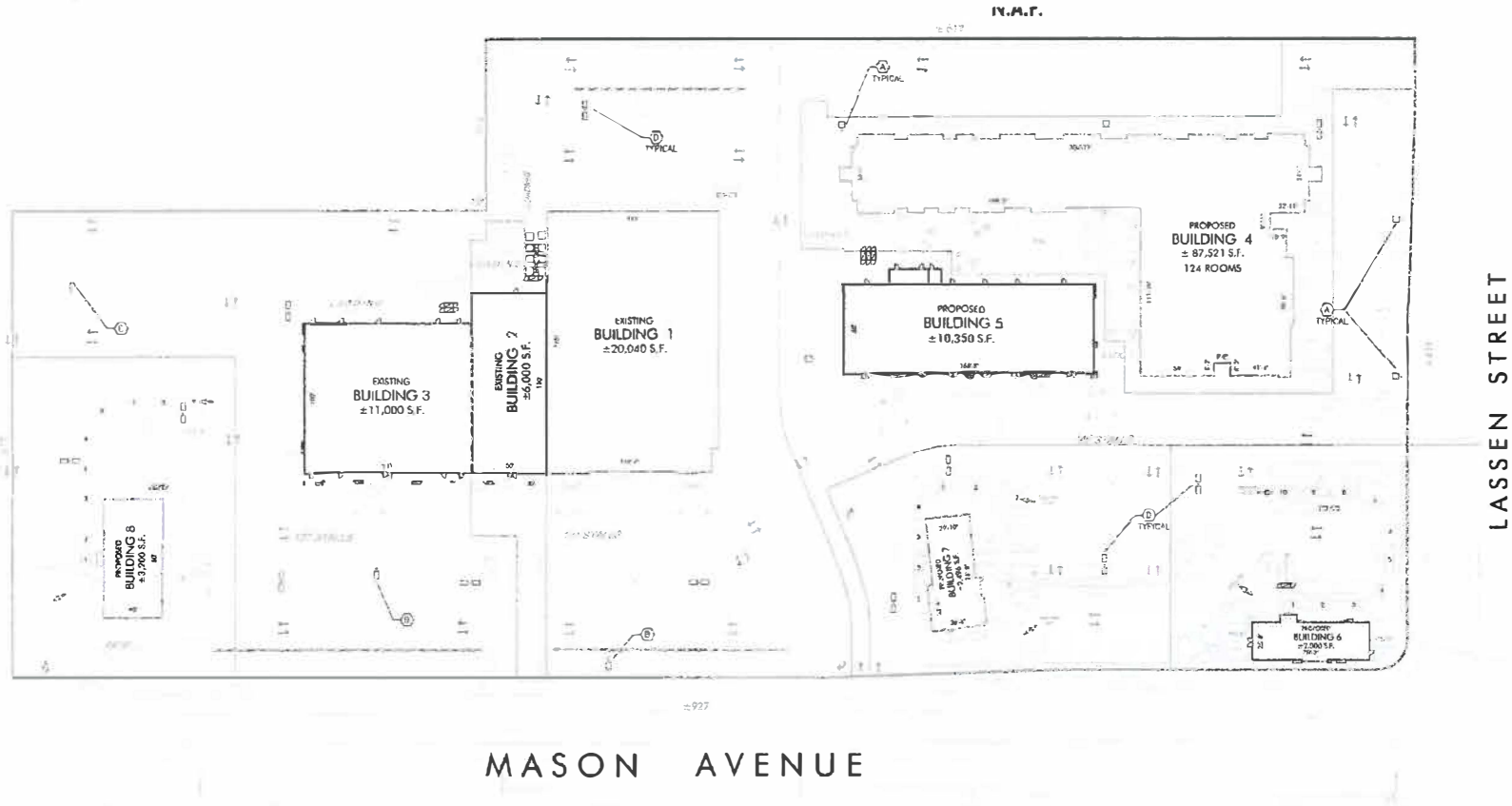


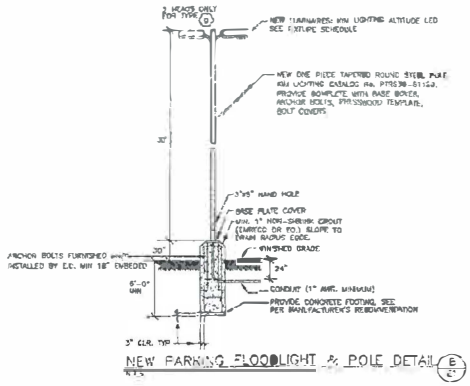
2 **MONUMENT SIGN**

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-32
Signage Elevations





SITE LIGHTING PLAN

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	Watts
	A	5	KIM LIGHTING ALT3P35-LED 4K	ALTITUDE ONE PIECE ALUMINUM EXTRUSION, DIE-CAST ALUMINUM END CAPS, EMITTER DECK CONSISTS OF CARRIER PLATES, HEAT SINKS, LEDS AND PRISMS.	LED 120 DIODES, 4000K	[illegible]
	B	2	KIM LIGHTING ALT4P35-120L4K	ALTITUDE ONE PIECE ALUMINUM EXTRUSION, DIE-CAST ALUMINUM END CAPS, EMITTER DECK CONSISTS OF CARRIER PLATES, HEAT SINKS, LEDS AND PRISMS.	LED 120 DIODES, 4000K	[illegible]
	C	1	KIM LIGHTING ALT3P35-120L3K	ALTITUDE ONE PIECE ALUMINUM EXTRUSION, DIE-CAST ALUMINUM END CAPS, EMITTER DECK CONSISTS OF CARRIER PLATES, HEAT SINKS, LEDS AND PRISMS.	LED 120 DIODES, 4000K	[illegible]
	D	14	KIM LIGHTING ALT3P35-120L3K	ALTITUDE ONE PIECE ALUMINUM EXTRUSION, DIE-CAST ALUMINUM END CAPS, EMITTER DECK CONSISTS OF CARRIER PLATES, HEAT SINKS, LEDS AND PRISMS.	LED 120 DIODES, 4000K	[illegible]

Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-33
Site Lighting Plan



Source: McKently Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-34
Perspective View Looking Southwest



Source: McKenzie Malak Architects, 2016.

CAJA Environmental Services, LLC

Figure II-35
Perspective View Looking South from Lassen Street

Table II-1
Building Data

Building/Land Use	Size (sf)	Height
Existing Building 1 (Fitness)	20,040	25'
Building 2 (Retail)	6,000	14'
Existing Building 3 (Retail)	11,000	14'
Proposed Building 4 (Hotel)	124 rooms/87,521	54'
Proposed Building 5 (Restaurant)	10,350	30'
Proposed Building 6 (Restaurant w/Drive-thru)	2,000	26'
Proposed Building 7 (Restaurant w/Drive-thru)	2,496	22' 2"
Proposed Building 8 (Restaurant w/Drive-thru)	3,200	24'
Total	**142,607**	

sf = square feet
Source: McKently Malak Architects, September 19, 2016.

The Project site is located within the Los Angeles State Enterprise Zone and is subject to reduced vehicle parking standards. As shown on Table II-2, the Project would be required to provide 174 parking spaces. However, the Project exceeds this requirement by providing 412 vehicle parking spaces. Also, the Project would include 30 bicycle parking spaces – 15 long-term spaces and 15 short-term retail spaces, meeting LAMC bicycle space parking requirements.

Table II-2
Project Vehicle Parking

Land Use	Required Parking	Parking Provided
Health Club	39	125
Retail	34	106
Hotel	66	43
Restaurant	31	123
Coffee Shop	4	15
Total	**174**	**412**

Source: Rosenheim & Associates, Inc., 2016.

Vehicular access to the Project would be provided via two driveways on Lassen Street and three driveways on Mason Avenue (refer to Figure II-6).

REQUESTED DISCRETIONARY ACTIONS

In order to implement the Project, the Project Applicant is requesting the following approvals from the City:

- **VESTING TENTATIVE TRACT MAP (VTTM 74699)**, pursuant to LAMC Section 17.15, to merge eleven lots and re-subdivide the Subject Property into eight lots for a mixed-use Project including retail commercial/health club/restaurants and a hotel;

- **VESTING ZONE and HEIGHT DISTRICT CHANGE** pursuant to Los Angeles Municipal Code Section 12.32F, from **C2-1L/P-1L** to **C2-1L;** from **[Q]MR1-1VL** to **CM-1L/M1-1;** and from **MR1-1/P-1/C2-1L** to **CM-1L/M1-1;**

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.24(b) for the construction, use and operation of a Hotel in the M1/CM Zone where more than fifty-percent of the lot on which the Hotel is located is in the CM Zone;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.17 for the construction, use and operation of three drive-through fast food establishments in the C2 and CM Zones;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.27 to permit the use and operation of a 24-hour/day food establishment and the installation and use of a Pole Sign on Lot 6 (VTTM 74699), a "Commercial Corner Development" lot;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.19(a) to permit Residential Density Transfer for buildings that comprise a Unified mixed-use Development;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.1 for the sale and dispensing of a full line of alcoholic beverages including beer and wine as an incidental business in or accessory to two operators: 1) the proposed 124-guest room Residence Inn Hotel; and, 2) a 4,000-square-foot 132-seat restaurant; and

- **SITE PLAN REVIEW and APPROVAL**, pursuant to LAMC Section 16.05, for: a) a124-guest room hotel; b) a change of use with three drive-through fast-food establishments; and, c) the change use for the unified center, excluding the drive-through establishments, with a net increase of more than 1,000 daily trips.

Other approvals and permits from the Department of Building and Safety and other municipal agencies would be required for Project construction actions including, but not limited to demolition, excavation, shoring, grading, foundation, building, and tenant improvements.

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY
AND CHECKLIST

LEAD AGENCY:	COUNCIL DISTRICT:	DATE:
City of Los Angeles	12	April 27, 2017

RESPONSIBLE AGENCIES:
City of Los Angeles

PROJECT TITLE:	CASE NO.:
Lassen and Mason	CPC-2016-5001-VZC-HD-CUB-CU-SPR; VTT-74699

PROJECT DESCRIPTION: The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of retail/restaurant land uses, and 7,544 square feet of restaurant with drive-thru land uses, and surface parking. To allow for implementation of the Project, the Project Applicant requests the following discretionary approvals: **VESTING TENTATIVE TRACT MAP (VTTM 74699)**, pursuant to LAMC Section 17.15, to merge eleven lots and re-subdivide the Subject Property into eight lots for a mixed-use Project including retail commercial/health club/restaurants and a hotel; **VESTING ZONE and HEIGHT DISTRICT CHANGE** pursuant to Los Angeles Municipal Code Section 12.32F, from **C2-1L/P-1L** to **C2-1L;** from **[Q]MR1-1VL** to **CM-1L/M1-1;** and from **MR1-1/P-1/C2-1L** to **CM-1L/M1-1; CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.24(b) for the construction, use and operation of a Hotel in the M1/CM Zone where more than fifty-percent of the lot on which the Hotel is located is in the CM Zone; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.17 for the construction, use and operation of three drive-through fast food establishments in the C2 and CM Zones; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.27 to permit the use and operation of a 24-hour/day food establishment and the installation and use of a Pole Sign on Lot 6 (VTTM 74699), a "Commercial Corner Development" lot; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.19(a) to permit Residential Density Transfer for buildings that comprise a Unified mixed-use Development; **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.1 for the sale and dispensing of a full line of alcoholic beverages including beer and wine as an incidental business in or accessory to two operators: 1) the proposed 124-guest room Residence Inn Hotel; and, 2) a 4,000-square-foot 132-seat restaurant; and **SITE PLAN REVIEW and APPROVAL**, pursuant to LAMC Section 16.05, for: a) a124-guest room hotel; b) a change of use with three drive-through fast-food establishments; and, c) the change use for the unified center, excluding the drive-through establishments, with a net increase of more than 1,000 daily trips.

ENVIRONMENTAL SETTING: The approximately 8.23-acre Project site is located in the Chatsworth-Porter Ranch Community Plan Area of the City of Los Angeles (the "City"). Regional access to the Project site is provided via California State Route 118 (the "Ronald Reagan Freeway") located approximately 1.6 miles to the north. The Project site is located at the southwest corner of Lassen Street and Mason Avenue and comprises assessor's parcel numbers (APNs) 2748-0050-20, 21, 22, 27, 28, 29, 44, and 48. The Project site is bound by Lassen Street to the north; Mason Avenue to the east; and manufacturing land uses to the south and west. The Project site is currently developed with approximately 40,820 square feet of retail land uses, an approximately 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west.

PROJECT LOCATION: 20504, 20524 Lassen Avenue and 9805, 9825, 9829, 9833, 9835, 9837, 9839, 9841, 9843, 9845, 9847, 9849, 9851, 9853, 9855, 9857 Mason Avenue, Los Angeles, CA 91311

PLANNING DISTRICT:	STATUS
Chatsworth-Porter Ranch	☐ PRELIMINARY ☐ PROPOSED ■ ADOPTED

EXISTING ZONING:	MAX. DENSITY ZONING:	■ DOES CONFORM TO PLAN
C2-1L, P-1L, MR1-1, [Q]MR1-1VL		☐ DOES NOT CONFORM TO PLAN
PLANNED LAND USE & ZONING:	**MAX. DENSITY PLAN:**	☐ NO DISTRICT PLAN
C2-1L, CM-1L, M1-1		
SURROUNDING LAND USES:	**PROJECT DENSITY:**	
(T)(Q)M1-1, QMR1-1, C2-1L,P-1L, RS-1, MR2-1, A2,1		

DETERMINATION (To be completed by Lead Agency)

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 on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

I find the proposed project MAY have a "potentially significant impact" or "potentially significant With mitigated" impact on the environment, 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 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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

SIGNATURE	**CITY PLANNER**

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 where it is based on project-specific factors as well as general standards (e.g., the project will 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, then the checklist answers must indicate whether the impact is potentially significant, less that 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 where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "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 (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross referenced).

5. Earlier analysis must be used where, pursuant to the 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 they 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 Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A sources 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 whichever 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 less than significance.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least an impact that is a "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages:

- ■ Aesthetics
- ☐ Agricultural Resources
- ☐ Air Quality
- ■ Biological Resource
- ■ Cultural Resources
- ☐ Geology & Soils
- ☐ Greenhouse Gas Emissions
- ■ Hazards & Hazardous Materials
- ☐ Hydrology & Water Quality
- ☐ Land Use & Planning
- ☐ Mineral Resources
- ■ Noise
- ☐ Population & Housing
- ☐ Public Services
- ☐ Recreation
- ■ Transportation/Traffic
- ■ Tribal Cultural Resources
- ☐ Utilities & Service Systems
- ■ Mandatory Findings of Significance

INITIAL STUDY CHECKLIST (to be completed by the Lead Agency)

BACKGROUND

PROPONENT NAME HRI Development	**PHONE NUMBER** Tel: 626-744-7700
PROPONENT ADDRESS 20 North Raymond Avenue, Suite 300 Pasadena, CA 91103	**PROPONENT REPRESENTATIVE** Jim Brunett
AGENCY REQUIRING CHECKLIST City of Los Angeles	**DATE SUBMITTED** TBD
PROPOSAL NAME (if applicable) Lassen and Mason Project	

ENVIRONMENTAL IMPACTS

Explanations of all potentially and less than significant impacts are discussed below.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. **Aesthetics.** Would the project:				
a. Have a substantial adverse effect on a scenic vista?				✓
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?		✓		
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. **Agriculture and Forestry Resources.** In determining whether impacts to 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 as an optional model to use in assessing impacts on agriculture and farmland. 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 Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 [g])?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality. The significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan			✓	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c. 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)?			✓	
d. Expose sensitive receptors to substantial pollutant concentrations?			✓	
e. Create objectionable odors affecting a substantial number of people?			✓	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources. Would the project::				
a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
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, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
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?				✓
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance		✓		
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?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		✓		
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			✓	
c. Directly or indirectly destroy a unique paleontological resource or site or			✓	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources. Would the project:				
unique geologic feature?				
d. Disturb any human remains, including those interred outside of formal cemeteries?			✓	
e. Cause a substantial adverse change in the significance of a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or determined eligible for listing on the California register of historical resources, listed on a local historical register, or otherwise determined by the lead agency to be a tribal cultural resource?			✓	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Geology & Soils. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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.				✓
b. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?			✓	
c. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?			✓	
d. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?				✓
e. Result in substantial soil erosion or the loss of topsoil?			✓	
f. 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			✓	
g. 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?			✓	
h. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Greenhouse Gas Emissions. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

8. **Hazards & Hazardous Materials.** Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
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?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d. Be located on a site which 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?		✓		
e. For a project 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, would the project result in a safety hazard for people residing or working in the project area?				✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
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?				✓

9. **Hydrology & Water Quality**. Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			✓	
b. 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
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 which would result in substantial erosion or siltation on- or off-site?			✓	
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 which would result in flooding on-or off-site?			✓	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f. Otherwise substantially degrade water quality?			✓	
g. 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				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology & Water Quality. Would the project:				
hazard delineation map?				✓
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
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?				✓
j. Inundation by seiche, tsunami or mudflow?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning. Would the project:				
a. Physically divide an established community?				✓
b. 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?			✓	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources. Would the project:				
a. Result in the loss or availability of a known mineral resource that would be of value to the region and the residents or the state?				✓
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?				✓

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise. Would the project result in:				
a. 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?		✓		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
e. For a project located within an airport land use plan or, where such a plan				✓

12. Noise. Would the project result in:

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
			✓

has not been adopted, within two 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?

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

13. Population and Housing. Would the project:

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
			✓
			✓

a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

14. Public Services.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
		✓	
		✓	
		✓	
		✓	

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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?
ii. Police protection?
iii. Schools?
iv. Parks?
v. Other public facilities?

15. Recreation.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
		✓	
		✓	

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?

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic. Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		✓		
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 count congestion management agency for designated roads or highways?			✓	
c. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				✓
d. 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?			✓	
e. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
f. Result in inadequate emergency access?			✓	
g. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			✓	

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
17. Tribal Cultural Resources. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?			✓	
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		✓		

18. Utilities & Service Systems. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
b. Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e. Result in a determination by the wastewater treatment provider which 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?			✓	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

19. Mandatory Findings of Significance.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of he 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?		✓		
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.)		✓		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

IV. ENVIRONMENTAL IMPACT ANALYSIS

1. AESTHETICS

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

No Impact. The Project site is located at the southwest corner of Lassen Street and Mason Avenue in the Chatsworth-Porter Ranch Community Area of the City of Los Angeles (the "City"). The Project site is bound by Lassen Street to the north; Mason Avenue to the east; and manufacturing land uses to the south and west. The Project site is currently developed with approximately 40,820 square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. The Simi Hills (located to the west of the Project area) and the Santa Susana Mountains (located to the north of the Project area) are partially visible from within the Project site area and near the Project site, but are mostly obscured by existing development. No scenic vistas are available from the Project site area.

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of restaurant land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking. . Building heights would range from 14 feet to approximately 54 feet (the hotel building). As stated previously, no scenic vistas are available from the Project site area. Thus, the Project would not have a substantial adverse effect on a scenic vista. Therefore, no impacts related to scenic vistas would occur as a result of the Project.

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 With Mitigation Incorporated. None of the roadways near the Project site is designated as a scenic highway. No rock outcroppings or historic buildings are located on the Project site. Thirty non-protected trees are located on the Project site that would be removed as part of the Project (refer to the Tree Report in Appendix A). However, as required by the City and as outlined in Mitigation Measure 1-1, all removed trees shall be replaced on the Project site at a 1:1 ratio, subject to the Urban Forestry Division of the Bureau of Street Services, Department of Public Works review and approval

prior to implementation of the mitigation measure. Therefore, with implementation of Mitigation Measure 1-1, the Project would not result in any significant impacts related to scenic resources (trees).

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

Less Than Significant Impact. As discussed previously, the Project site is located at the southwest corner of Lassen Street and Mason Avenue in an urbanized area of the City. The Project site is bound by Lassen Street to the north; Mason Avenue to the east; and manufacturing land uses to the south and west. The Project site is currently developed with approximately 40,820 square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. The developed suburban nature of the Project site and surrounding define its visual character.

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 16,845 square feet of retail land uses, 9,774 square feet of restaurant land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking. Building heights would range from 14 feet to approximately 54 feet (the hotel building). As stated previously, the visual character of the Project site and area is defined by its developed suburban nature. Although the Project would change the visual character of the Project site and area by removing some of the existing buildings from the site, altering other existing buildings, and developing new buildings and uses at the site, the proposed hotel, gym, retail, and restaurant land uses would not result in a substantial degradation to the visual character or quality of the Project site and its surroundings. Therefore, Project impacts related to visual character would be less than significant.

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 Project site is located in an urbanized area of the City and is currently developed with approximately 40,820square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a

gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. All of these land uses produce light and glare (e.g., indoor/outdoor lighting, windows, light-colored surfaces, etc.) typical of such uses in an urbanized area of the City. The Project would include interior and exterior lighting that complies with the LAMC provision that requires minimizing the effect of the new sources of lighting. Specifically, LAMC Section 91.6205 requires that new lighting sources not exceed 1 foot-candle of new light spillover at residential property lines. Consequently, no substantial changes in nighttime illumination would occur that would adversely affect nighttime views in the area and prevent spillover lighting. Also, the Project would be required to use non-reflective glass, pursuant to LAMC Section 93.0117. Therefore, Project impacts related to light and glare would be less than significant.

Mitigation Measure (Aesthetics)

To ensure that Project impacts related to trees would be less than significant, the following mitigation measure is required:

1-1: Non-Protected Trees

- Prior to issuance of any permit related to development of the Project, a plot plan shall be prepared for the Project, indicating the location, size, type, and general condition of all existing trees on the Project site and within the adjacent public right(s)-of-way.

- All significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the Project site proposed for removal shall be replaced at a 1:1 ratio with a minimum 24-inch box tree. Net new trees located within the parkway of the adjacent public-right(s)-of-way may be counted toward replacement tree requirements.

- Removal or planning of any tree in the public right-of-way shall require approval of the Board of Public Works. All trees in the public right-of-way shall be provided in the current standards of the Urban Forestry Division of the Department of Public Works, Bureau of Street Services.

Cumulative Impacts

None of the related projects listed on Table IV-40 and Figure IV-10 shown later in this section is located within visual proximity of the Project. As such, the combination of the Project with the related projects would not result in any cumulative aesthetic impacts. All new development in the City is required to comply with LAMC requirements referenced previously related to light and glare. Therefore, cumulative impacts related to aesthetics would be less than significant.

2. AGRICULTURE AND FORESTRY RESOURCES

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 Extent of Important Farmland Map Coverage maintained by the Division of Land Protection indicates that the Project site is not included in the Important Farmland category.[1] Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No Impact. The Project site is not zoned for agricultural use, and the site is not under a Williamson Act Contract.[2] Thus, the Project would not conflict with existing zoning for agricultural use, or a Williamson Act Contract. Therefore, no impacts related to this issue would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 [g])?

No Impact. The Project site is not zoned as forest land or timberland. Therefore, no impacts related to this issue 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 does not contain any forest land. Therefore, no impacts related to this issue would occur.

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1 *State of California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland, 1998.*

2 *Ibid.*

e) Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact. The Project site and surrounding area are developed with urban land uses. No agricultural uses are located on the Project site or within the area. Therefore, no impacts related to this issue would occur.

Cumulative Impacts

Neither the Project site nor any of the related projects' sites are used or designated as agricultural land or forest land. Therefore, no cumulative impacts related to agricultural resources would occur.

3. AIR QUALITY

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. In the case of projects proposed within the City or elsewhere in the South Coast Air Basin (the "Basin"), the applicable plan is the 2012 Air Quality Management Plan (AQMP), which is prepared by the South Coast Air Quality Management District (SCAQMD). The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and cooperates actively with all state and federal government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary.

The regional ozone attainment plan centers on accommodating population growth forecasts by SCAG. Specifically, SCAG's growth forecasts from the 2012 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) are largely built off local growth forecasts from local governments like the City of Los Angeles. The RTP/SCS accommodates up to 3,991,700 persons; 1,455,700 households; and 1,817,700 jobs in the City by 2020.

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of restaurant land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking. The types of jobs that would be made available by the Project could be filled by people already living in the Project area and surrounding communities. The Project would not create such an increase in

employment that would cause a substantial number of new people to move to the Project area and surrounding communities to fill the employment positions. Also, the Project does not include the development of housing and would be served by existing roadways and utility infrastructure. For these reasons, the Project would not induce population growth that has not been planned for by SCAG. Thus, the Project would be consistent with the 2012 AQMP. Therefore, impacts related to AQMP consistency would be less than significant.

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

Less Than Significant Impact. Both short-term impacts occurring during construction and long-term effects related to the ongoing operation of the Project are discussed below. This analysis focuses on two levels of impacts: pollutant emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, as measured in pounds per day. "Concentrations" refer to the amount of pollutant material per volumetric unit of air, as measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

Pollutants and Effects

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb). These pollutants are discussed below.

- Carbon Monoxide (CO) is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. It is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[3] The highest concentrations occur during the colder months of the year when inversion conditions are more frequent. CO is a health

[3] *Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.*

concern because it competes with oxygen, often replacing it in the blood and reducing the blood's ability to transport oxygen to vital organs. Excess CO exposure can lead to dizziness, fatigue, and impair central nervous system functions.

- Ozone (O_3) is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; rather, it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

- Nitrogen Dioxide (NO_2) like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm.

- Sulfur Dioxide (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

- Particulate Matter (PM) consists of small liquid and solid particles floating in the air, including smoke, soot, dust, salts, acids, and metals and can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair and results from fuel combustion (e.g. motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC. Inhalable particulate matter, or PM_{10}, is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, they can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

- Lead (Pb) in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities have become lead-emission sources of greater concern.

  Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

- Toxic Air Contaminants (TAC) are airborne pollutants that may increase a person's risk of developing cancer or other serious health effects. TACs include over 700 chemical compounds that are identified by State and federal agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process established in 1983 that includes risk identification and risk management.

Regulatory Setting

Federal

The United States Environmental Protection Agency (the "USEPA") is responsible for enforcing the Federal Clean Air Act (CAA), the legislation that governs air quality in the United States. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in states other than

California, where automobiles must meet stricter emission standards set by the California Air Resources Board (CARB).

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires the USEPA to designate areas as attainment, non-attainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized on Table IV-1. The USEPA has classified the South Coast Air Basin as non-attainment for O_3, $PM_{2.5}$, and PM_{10} and maintenance for CO and NO_2.

State

In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for administering the CCAA and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The state standards are summarized on Table IV-1.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as non-attainment. Under the CCAA, the Los Angeles County portion of the South Coast Air Basin is designated as a non-attainment area for O_3, $PM_{2.5}$, and PM_{10}.[4]

[4] *CARB, Area Designation Maps, available at http://www.arb.ca.gov/desig/adm/adm.htm, accessed August 17, 2013.*

Table IV-1
State and National Ambient Air Quality Standards and Attainment Status for the South Coast Air Basin

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Non-attainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	N/A[1]	0.075 ppm (147 µg/m^3)	Non-attainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Non-attainment	150 µg/m^3	Attainment
	Annual Arithmetic Mean	20 µg/m^3	Non-attainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Non-attainment
	Annual Arithmetic Mean	12 µg/m^3	Non-attainment	15 µg/m^3	Non-attainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Unclassified/ Attainment
	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Unclassified/ Attainment
Sulfur Dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	Attainment	--	Attainment
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Non-attainment

[1] *N/A = CARB has not determined 8-hour O_3 attainment status*
Source: CARB, Ambient Air Quality Standards, and attainment status, (www.arb.ca.gov/desig/adm/adm.htm), accessed August 1, 2016.

Local

South Coast Air Quality Management District

The 1977 Lewis Air Quality Management Act merged four air pollution control district to create the SCAQMD to coordinate air quality planning efforts throughout Southern California. It is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards. Programs include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source

emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality over its jurisdiction of 10,743 square miles, including the South Coast Air Basin, which covers an area of 6,745 square miles and is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD also regulates the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin.

All areas designated as non-attainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. The Southern California Association of Governments (SCAG) assists by preparing the transportation portion of the AQMP. On December 7, 2012, the SCAQMD adopted its 2012 AQMP, which is now the legally enforceable plan for meeting the 24-hour $PM_{2.5}$ strategy standard by 2014.

In addition to criteria pollutants, the SCAQMD also regulates air toxics. A cornerstone of its work was the development of the Multiple Air Toxics Exposure Study (MATES-III). The monitoring program measured more than 30 air pollutants, including both gases and particulates, and estimated the risk of cancer from breathing toxic air pollution throughout the region. MATES-III found that the cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million. An addendum to the plan was completed in March 2004 that included an update on the implementation of the mobile and stationary source strategies.

In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts.

City of Los Angeles

Air quality policies are governed by the City's General Plan, which includes an Air Quality Element. Adopted on November 24, 1992, the Element includes six key goals that relate directly or indirectly to air quality:

1. Good air quality in an environment of continued population growth and healthy economic structure.

2. Less reliance on single-occupant vehicles with fewer commute and non-work trips.

3. Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand management techniques.

4. Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

5. Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting.

6. Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

Air Pollution Climatology

The Project site is located within the Los Angeles County non-desert portion of the Basin. The Basin is in an area of high air pollution potential due to its climate and topography. The region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The Basin experiences frequent temperature inversions that help to form smog. While temperature typically decreases with height, it actually increases under inversion conditions as altitude increases, thereby preventing air close to the ground from mixing with the air above. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland toward the mountains.

Air quality problems also occur during the fall and winter, when CO and NO_2 emissions tend to be higher. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.) when temperatures are cooler. High CO levels during the late evenings result from stagnant atmospheric conditions trapping CO. Since CO emissions are produced almost entirely from automobiles; the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 concentrations are also generally higher during fall and winter days.

Air Monitoring Data

The SCAQMD monitors air quality conditions at 45 locations throughout the Basin. The Project site is located in SCAQMD's West San Fernando Valley receptor area (Area 6). Historical data from the area was used to characterize existing conditions in the vicinity of the Project site area. Table IV-2 shows pollutant levels, State and Federal standards, and the number of exceedances recorded in the area from 2012 through 2014. The one-hour State standard for O_3 was exceeded three times during this three-year period, the daily State standard for PM_{10} was exceeded eight times while the daily State standard for $PM_{2.5}$ was exceeded five times. CO and NO_2 levels did not exceed the CAAQS from 2012 to 2014.

Existing Emissions

The Project site includes 40,820 square feet of retail uses; a 19,569-square-foot RV and boat storage facility; a 1,032 square-foot automobile care center; 1,606 square-foot single family residence; and surface-level parking. As shown on Table IV-3, the majority of emissions currently generated by land uses at the Project site are from mobile sources.

Table IV-2
2012-2014 Ambient Air Quality Data in the Project Site Vicinity

Pollutant	Pollutant Concentration & Standards	West San Fernando Valley		
		2012	2013	2014
Ozone	Maximum 1-hour Concentration (ppm)	0.093	0.081	0.113
	Days > 0.09 ppm (State 1-hour standard)	0	0	3
	Days > 0.075 ppm (Federal 8-hour standard)	1	0	2
Carbon Monoxide	Maximum 1-hour Concentration (ppm)	N/A	N/A	N/A
	Days > 20 ppm (State 1-hour standard)	N/A	N/A	N/A
	Maximum 8-hour Concentration (ppm)	1.9	2.0	2.0
	Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide	Maximum 1-hour Concentration (ppm)	0.0773	0.0903	0.0821
	Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM_{10}	Maximum 24-hour Concentration ($\mu g/m^3$)	80	57	66
	Days > 50 $\mu g/m^3$ (State 24-hour standard)	4	1	3
$PM_{2.5}$	Maximum 24-hour Concentration ($\mu g/m^3$)	58.7	43.1	N/A
	Days > 35 $\mu g/m^3$ (Federal 24-hour standard)	4	1	N/A
Sulfur Dioxide	Maximum 24-hour Concentration (ppm)	N/A	N/A	N/A
	Days > 0.04 ppm (State 24-hour standard)	N/A	N/A	N/A

Source: SCAQMD annual monitoring data (www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year) accessed August 1, 2016.
N/A: Not available at this monitoring station.

Table IV-3
Existing Daily Operations Emissions

Emission Source	*Pounds per Day*					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	1	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	1	6	17	<1	3	1
Total Operations	**2**	**6**	**17**	**<1**	**3**	**1**

Source: DKA Planning 2016 based on CalEEMod 2016.3.1 model runs. Refer to Appendix B.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14; the elderly over 65 years of age; athletes; and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

Sensitive receptors near the Project site include the following:

- St. John Etudes School, 9901 Mason Avenue; 120 feet north of the Project site.
- Valle Verde Courtyard; 20652 Lassen Street; multi-family residences 5 feet west of the Project site.
- Superior Street Elementary School; 9756 Oso Avenue; 1,430 feet east of the Project site.
- Chatsworth High School; 10027 Lurline Avenue; 1,160 feet northwest of the Project site.
- Rancho San Antonio Boy's Home; 21000 Plummer Street; 3,100 feet southwest of the Project site.

Project Impacts

Construction – Regional Emissions

Construction-related emissions were estimated using the SCAQMD's CalEEMod 2016.3.1 model using assumptions from the Project's developer, including the Project's construction schedule of approximately seven months. Table IV-4 summarizes the Project's approximate construction schedule.

Table IV-4
Project Site Construction Schedule

Phase	Duration	Notes
Demolition	4/3/17-4/17/17	Debris from 83,100 square feet of development hauled 30 miles off-site
Grading	4/18/17-5/15/17	7,000 cubic yards of soil export to off-site location 30 miles away
Site Preparation	5/16/17-6/10/17	
Building Construction	6/11/17-10/8/17	
Paving	9/21/17-10/30/17	
Architectural Coatings	10/9/17-12/9/17	
Source: DKA Planning, 2016		

As shown on Table IV-5, the construction of the Project would not produce VOC, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ emissions in excess of SCAQMD's regional thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants (e.g., ozone). Therefore, Project impacts related to regional construction emissions would be less than significant.

Table IV-5
Estimated Daily Construction Emissions

Construction Phase Year	*Pounds Per Day*					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2017	49	55	45	<1	9	6
Maximum Regional Total	49	55	45	<1	9	6
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Maximum Localized Total[1]	46	46	23	<1	9	<6
Localized Significance Threshold	--	221	1,158	--	11	6
Exceed Threshold?	N/A	No	No	N/A	No	No

Source: DKA Planning, 2016 based on CalEEMod 2016.3.1 model runs. Refer to Appendix B. LST analyses based on 5-acre site with 25-meter distances to receptors in West San Fernando Valley source receptor area. Calculation of localized emissions takes into consideration the effectiveness of SCAQMD Rule 403, which is required by the City to be implemented for all construction-related ground-disturbing activities and is enforced by the Department of Building and Safety.

Construction – Localized Emissions

In terms of local air quality, the Project would not generate pollutant emissions in excess of SCAQMD's recommended localized standards of significance for NO_2, CO, PM_{10} and $PM_{2.5}$ during the construction phase (refer to Table IV-5). As a result, construction of the Project would not contribute substantially to

an existing violation of air quality standards for regional pollutants (e.g., ozone). Therefore, Project impacts related to localized construction emissions would be less than significant.

Operation – Regional Emissions

The Project would produce long-term air quality emissions, primarily associated with vehicular traffic. The Project could add up to 3,715 net weekday daily vehicle trips to and from the Project site on a peak weekday at the start of operations in 2018.[5] However, as shown on Table IV-6, operational emissions would not exceed SCAQMD's regional significance thresholds for VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions. Therefore, Project impacts related to regional operational emissions would be less than significant.

Table IV-6
Estimated Daily Project Operational Emissions

Emissions Source	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Source	5	<1	<1	<1	<1	<1
Energy Source	<1	2	2	<1	<1	<1
Mobile Source	11	40	100	<1	14	4
Total Operational Emissions	16	42	102	<1	14	4
Regional Threshold	-2	-6	-17	-<1	-3	-1
Exceed Threshold?	**14**	**36**	**85**	**<1**	**11**	**3**
Localized Total	**55**	**55**	**550**	**150**	**150**	**55**
Localized Threshold	No	No	No	No	No	No
Exceed Threshold?	**5**	**2**	**8**	**<1**	**<1**	**<1**

Source: DKA Planning 2016 based on CalEEMod 2016.3.1 model runs. Refer to Appendix B. LST analysis based on 5-acre site with 25-meter distances to receptors in East San Fernando Valley source receptor area.

Operation – Localized Emission

With regard to localized air quality emissions, the Project would emit minimal emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ from area and energy sources on-site. As shown on Table IV-6, these localized emissions would not approach the SCAQMD's localized significance thresholds that signal when there could be human health impacts at nearby sensitive receptors during long-term operations. Therefore, Project impacts related to localized operational emissions would be less than significant.

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

[5] *Traffic Impact Study SWC Mason/Lassen Project, Linscott, Law & Greenspan, October 2016.*

ambient air quality standard (including releasing emissions, which exceed quantitative threshold for ozone precursors)?

Less Than Significant Impact. The SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.[6] Individual projects that generate emissions not in excess of SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

As discussed in response to Checklist Question 3(b), the Project would not produce VOC, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10} emissions in excess of SCAQMD's significance thresholds. As such, the Project's contribution to cumulative pollutant emissions would not be considerable.

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

Less Than Significant Impact. As discussed in response to Checklist Question 3(b), the Project would not produce VOC, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10} emissions in excess of SCAQMD's significance thresholds. As such, the Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, Project impacts related to this issue would be less than significant.

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

Less Than Significant Impact. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site. The Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Construction of the Project would not cause an odor nuisance.

According to the SCAQMD CEQA Air Quality Handbook, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The proposed hotel, fitness, retail, and restaurant land uses would not result in activities that create objectionable odors. Therefore, Project impacts related to odors would be less than significant.

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[6] *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.*

Cumulative Impacts

As stated previously, SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also would be considered cumulatively considerable. Individual projects that generate emissions not in excess of SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. As discussed in response to Checklist Question 3(b), the Project would not generate emissions in excess of SCAQMD's significance thresholds. As such, the Project would not contribute considerably to any potential cumulative impact. Therefore, cumulative impacts related to air quality would be less than significant.

4. BIOLOGICAL RESOURCES

a) Would the project 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 regulation, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated. In its existing condition, the Project site is completely developed with buildings and surface parking. The Project site is located in an urbanized area of the City and is surrounded by existing development. The Project site contains 30 trees that would be removed as part of the Project. Depending on the time of year that the Project site is developed, nesting species (which are protected by law) could be using the trees on the Project site. As such, the Project Applicant would be required to implement Mitigation Measure 4-1 to ensure that no significant impacts related to nesting birds would occur. Therefore, impacts related to this issue would be less than significant.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. In its existing condition, the Project site is completely developed with buildings and surface parking. The Project site and surrounding area are completely developed with urbanized land uses. No riparian habitat or sensitive natural communities are located on or near the Project site. Thus, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Therefore, no impacts related to this issue would occur.

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, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. In its existing condition, the Project site is completely developed with buildings and surface parking. The Project site and surrounding area are completely developed with urbanized land uses. No wetlands are located on or near the Project site. Thus, the Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Therefore, no impacts related to this issue would occur.

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 native wildlife nursery sites?

No Impact. In its existing condition, the Project site is completely developed with buildings and surface parking. The Project site and surrounding area are completely developed with urbanized land uses and are not part of a migratory wildlife corridor or near a native wildlife nursery site. Thus, the Project would not 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. Therefore, no impacts related to this issue would occur.

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 With Mitigation Incorporated. As discussed in response to Checklist Question 1(b), 30 non-protected trees are located on the Project site, all of which would be removed during the Project's construction phase. However, as required by the City and as outlined in Mitigation Measure 1-1, all removed trees shall be replaced on the Project site at a 1:1 ratio, subject to the Urban Forestry Division of the Bureau of Street Services, Department of Public Works review and approval prior to implementation of the mitigation measure. Therefore, with implementation of this mitigation measure, the Project would not result in any significant impacts related to trees.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. In its existing condition, the Project site is completely developed with buildings and surface parking. The Project site is not subject to a Habitat Conservation Plan, a Natural Community Conservation Plan, or other such plan. Therefore, the Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and no impacts related to this issue would occur.

Mitigation Measures (Biological Resources)

To ensure that Project impacts related to biological resources would be less than significant, the following mitigation measure is required:

4-1: ***Nesting Species***

To avoid potential significant impacts to nesting birds, including migratory birds and raptors, one of the following shall be implemented by the Project Applicant:

- Conduct vegetation removal associated with construction from September 1st through January 31st, when birds are not nesting. Initiate grading activities prior to the breeding season (which is generally February 1st through August 31st) and keep disturbance activities constant throughout the breeding season to prevent birds from establishing nests in surrounding habitat (in order to avoid possible nest abandonment); if there is a lapse in activities of more than five days, pre-construction surveys shall be necessary as described in the bullet below.

  OR…

- Conduct pre-construction surveys for nesting birds if vegetation removal or grading is initiated during the nesting season. A qualified wildlife biologist shall conduct weekly pre-construction bird surveys no more than 30 days prior to initiation of grading to provide confirmation on the presence or absence of active nests in the vicinity (at least 300 to 500 feet around the individual construction site, as access allows). The last survey should be conducted no more than three days prior to the initiation of clearance/construction work. If active nests are encountered, clearing and construction in the vicinity of the nests shall be deferred until the young birds have fledged and there is no evidence of a second attempt at nesting. A minimum buffer of 300 feet (500 feet for raptor nests) or as determined by a qualified biologist shall be maintained during construction depending on the species and location. The perimeter of the nest-setback zone shall be fenced or adequately demarcated with staked flagging at 20-foot intervals, and construction personnel and activities restricted from the area. Construction personnel should be instructed on the sensitivity of the area. A survey report by the qualified biologist documenting and verifying compliance with the mitigation and with applicable state and federal regulations protecting birds shall be submitted to the City and County, depending on within which jurisdiction the construction activity is occurring. The qualified biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas to ensure that no inadvertent impacts on these nests would occur.

Cumulative Impacts

As discussed, no significant biological resources are located on the Project site. All of the related projects listed on Table IV-40 are located in highly urban areas and likely do not contain significant biological resources. Because the Project would not result in any impacts related to biological resources, the Project does not have the potential to contribute to any cumulative biological resources impacts. Therefore, cumulative impacts related to biological resources would be less than significant.

5. CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant With Mitigation Incorporated. The discussion and analysis of Project impacts related to historical resources is primarily based on the Historical Resources Assessment Report prepared by Architectural Resources Group, dated October 26, 2016 (refer to Appendix C).

Definition of Historical Resources

For the purposes of CEQA, the term "historical resources" shall include the following as set forth in Section 15064.5 of the CEQA Guidelines (Cal. Code Regs., tit 14, §15000, et seq.):

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.

- A resource included in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources.

Definition of Substantial Adverse Change

A "substantial adverse change" in the significance of a historical resource is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Further, the significance of an historical resource is "materially impaired" when a project:

- "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the California Register of Historical Resources; or

- "demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources... or its identification in an historical resources survey..., unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- "demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA."

CEQA effectively requires preparation of a Mitigated Negative Declaration or an EIR whenever a project may adversely impact historic resources. Current CEQA law provides that an EIR must be prepared whenever it can be fairly argued, on the basis of substantial evidence in the administrative record, that a project may have a significant effect on a historical resource. A Mitigated Negative Declaration may be used where all potentially significant effects can be mitigated to a level of insignificance. For example, a Mitigated Negative Declaration may be adopted for a project that mitigates significant effects on an historical resource by meeting the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and local historic preservation regulations.

Project Site and Setting

The Project site is located at the southwest corner of Lassen Street and Mason Avenue in the Chatsworth community of the City. The topography of the site slopes gently downward to the south from Lassen St. and away from the foothills of the San Fernando Valley. The site is generally surrounded by residential development to the north, east, and west, and commercial/industrial development to the south. Immediately north of the site, on the north side of Lassen Street, is a church (St. Johns Eudes Church); directly south of the site are additional commercial properties; immediately east of the site, on the east side of Mason Avenue, are a gas station, convenience store and restaurant; and directly west of the site is a storage center and mobile home park.

The site comprises approximately eight acres (and eight parcels) currently occupied by a single-family residence, an automobile repair shop, a single freestanding commercial building, a commercial strip of five adjacent structures, and an open storage lot for recreational vehicles (RVs). Paved parking fronts the buildings on the east side of the site. The RV storage lot, which encompasses the majority of the northwest portion of the Project site, is mostly dirt (the southernmost section is paved with asphalt).

The information below provides details and a description of each of the buildings on the Project site. The former Safeway supermarket (9825 N. Mason Ave.) is described in further detail.

9733-9745 Mason Avenue

Year Built: 1961

Architectural Style: Commercial Vernacular

Architect: George Kirkpatrick

Contractor: Modiano Construction Company

Alterations: Projecting metal fascia added at the canopy/parapet, new signage.

Description: One-story wood-framed building comprising four retail storefronts. Features a rectangular plan, flat roof with a parapet, and stucco and brick cladding. Original fenestration consists of fully-glazed aluminum-frame storefront system.

9749-9753 Mason Avenue

Year Built: 1961

Architectural Style: Commercial Vernacular

Architect: George Kirkpatrick

Contractor: Modiano Construction Company

Alterations: Projecting metal fascia added at the canopy/parapet, new signage.

Description: One-story wood-framed building comprising five retail storefronts. Features a rectangular plan, flat roof with a parapet, and stucco and brick cladding. Fenestration includes floor-to-ceiling windows and fully-glazed aluminum doors.

9755-9765 Mason Avenue

Year Built: 1961

Architectural Style: Commercial Vernacular

Architect: None

Contractor: Wilber F. Stanley

Alterations: Northern and southernmost storefronts altered (re-clad in stone and vertical wood siding), new signage.

Description: One-story wood-framed building comprising five retail storefronts. Retains a rectangular plan, flat roof with a parapet, stucco and brick cladding, and a stuccoed canopy. Original fenestration consists of fully-glaze aluminum-frame storefront system with door transoms.

9805 Mason Avenue

Year Built: 1961

Architectural Style: Commercial Vernacular

Architect: None

Contractor: Wilber F. Stanley

Alterations: New signage.

Description: One-story wood-framed building comprising one storefront. Retains a rectangular plan, flat roof with a stuccoed parapet, brick cladding, and a canopy. Original fenestration consists of fully-glaze aluminum-frame storefront system with door transoms.

9835-9849 Mason Avenue

Year Built: 1960

Architectural Style: Commercial Vernacular

Architect: George Kirkpatrick

Contractor: Modiano Construction Company

Alterations: New signage, re-clad, brick painting.

Description: One-story wood-framed building comprising eight storefronts. Retains a rectangular plan, flat roof and stucco cladding with brick accent cladding. A wide fascia sits below the roof parapet and

holds signage for each tenant. Original fenestration consists of fully-glazed aluminum-frame storefront system.

20504 West Lassen Street

Year Built: 1960

Architectural Style: Commercial Vernacular

Architect: None

Contractor: Nigg Engineering Corporation

Alterations: Signage altered/added

Description: One-story commercial building with rectangular plan, flat roof with projecting eaves, and walls clad with stucco. Fenestration consists of fixed aluminum windows and partially glazed door at the east (primary) façade, and additional doors and vehicular entry on the sides.

20524 West Lassen Street Avenue

Year Built: 1923

Architectural Style: Vernacular/Craftsman

Architect: None

Contractor: Illegible

Alterations: Addition to west elevation, flush with primary façade (1960), doors and windows altered, exterior

Description: One-story single-family residence with rectangular plan and wood framing. Features a gable and hipped roof with exposed rafter tails, purlins, and wood fascia, and walls clad with stucco. North (primary) façade contains a full-length concrete slab porch covered with a pent roof supported by three stuccoed arches. Fenestration includes boarded-up windows (not visible) and a non-original paneled door.

9825 North Mason Avenue (Former Safeway)

Site and Setting

The building at 9825 N. Mason Avenue, the former Safeway store, is located on a two-and-a-half-acre lot at the center of the Project site. It is set back further and south of the automobile repair shop (20504 W.

Lassen) and commercial building (9835-9849 N. Mason) that share the Project site. The building is fronted by a large paved parking lot and anchors a smaller adjoining commercial retail strip to the south. To the north of the building is another parking lot and a brick wall that encloses an area that has been used for RV storage since the 1970s (this area is partially paved with asphalt and partially unpaved). A concrete loading dock is located directly west of the building at the rear.

Exterior

Completed in 1961 as a Safeway supermarket, the building was designed in the Mid-Century Modern style. The building has a rectangular plan capped with a low-pitched, front-facing gabled roof with wide eaves and exposed glulam beam ends that pierce the side fascia. The eaves on the west (rear) façade are boxed with painted plywood. The roof is covered in composition shingle roofing as well as an unknown material in areas where it experienced extensive fire damage in the early 2000s. The walls of the building are composed of painted concrete panels and brick veneer.

The building's primary (east) façade is characterized by its prominent asymmetrical roofline, composed of a broad, low-pitched gable that extends down further at the north end, beyond the north wall. At the south end of the primary façade, the roof rake terminates in a brick-clad wall that extends above the eaves and terminates in a flat parapet. Near the top south corner of the brick wall is a recessed circular impression that contains the letter "h" (the logo for the current occupant of the building; it originally held Safeway's "S" logo). At the center of the east façade is a grouping of fixed and sliding aluminum windows that extend from the exposed glulam roof beam at the top of the gable end to a raised brick planter that runs along the foot of the building (most of the windows are not original, and some have been replaced with air conditioning units and wood vertical board siding). The glazed entry is bisected by a projecting horizontal fascia clad in stucco with mounted lettering reading "HERCULES DISTRIBUTING LTD." (It originally contained metal signage that read "SAFEWAY"). A single fully-glazed aluminum door (not an original door/opening) is located at the north end of the entry, and a pair of fully-glazed aluminum doors is located at the south end. The entrance is bounded on either side by walls clad in buff brick veneer with raked horizontal mortar joints. Within the brick cladding are small, recessed rectangular windows of different sizes arranged in a decorative geometric composition of horizontals and verticals. Most of the windows retain textured obscure glass in various colors (some of the glazing has been boarded up/removed). To the north of the northern section of brick veneer is an area clad with non-original wood vertical board paneling (this area originally contained a large window, which may simply be covered). Below the wood vertical board is a raised brick planter.

The building's north façade is primarily composed of painted concrete panels, with brick cladding near its east end wrapping from the main façade treatment. Simple concrete pilasters are evenly spaced along the concrete paneled portion of the façade and align with the glulam beam ends that support the eaves and pierce the fascia at the north façade. North façade fenestration includes metal doors (not original) at its center and west end, and a grouping of windows and

fully-glazed aluminum doors at its east end. The window and door configuration at the east end of the north elevation is slightly recessed from the brick cladding it abuts to the west. The grouping is composed of eight windows of roughly equal size and two single doors, forming a secondary entrance at the northeast corner.

The building's west façade comprises the rear gable end of the structure. At the top of the gable end is a metal utility light with a curved arm, and sprinklers line the bottom of the plywood-boxed eaves. The west wall is composed of painted concrete panels with four metal roll-up freight doors and two standard-size metal doors.

The south façade of the former Safeway market is not visible, as it adjoins a commercial retail strip.

Interior

The interior, which originally featured an open floor plan (with coolers, lockers, and restrooms at the rear), is subdivided into multiple office and storage rooms. Smaller office spaces line the perimeter and front of the interior of the building, and larger storage rooms are located near the rear. A mezzanine office level, added in 1970, is located at the front of the building in the east gable end. Though most of the original interior finishes have been removed, the original open ceiling with exposed glulam beams are still extant, as are the furred soffits along the sides and narrow metal columns, which run along the center (ridgeline) of the interior.

Character-Defining Features

Following is a list of the character-defining features, which are those materials, features, and characteristics, dating to the period of significance, that constitute the historic building and contribute to its significance.

- Horizontal massing
- Low-pitched gable roof
- Asymmetrical roofline
- Exposed glulam beams at the gable end, exposed on the north façade eaves, and at the interior ceiling
- Unornamented buff brick veneer with raked horizontal joints
- Painted concrete wall panels (north and west sides)
- Floor-to-ceiling window arrangement in center of primary (east) façade
- Aluminum-framed, fixed windows at east and north façades
- Fully-glazed aluminum doors at the east and north façades
- Pattern of recessed/punched rectangular windows with colored, textured obscure glass at the primary façades

- Projecting stuccoed fascia bisecting the glazed entry at the primary façade
- Circular impression at the top south corner of the primary façade

Historic Context and Development

Early History of Chatsworth

Chatsworth is a community in the City, located in the northwestern corner of the San Fernando Valley, approximately 30 miles northwest of downtown. Like most of Los Angeles County, Chatsworth was originally inhabited by the Tongva people and was the site of a small Tongva village, likely called Momonga. The village served as an important trading center among the Tongva, Tataviam, and Chumash tribes due to its adjacency to the Santa Susana Mountains, a convergence point between the tribes. In the late eighteenth century, Franciscan missionaries arrived in the San Fernando Valley and founded Mission San Fernando in 1797. Momonga was subsequently abandoned as the Tongva were either relocated to the mission or succumbed to communicable diseases introduced by the Spanish. Due to its relative distance from Mission San Fernando, Chatsworth remained largely uninhabited while California was under Spanish rule.

When the State was ceded to Mexico in 1821, Chatsworth was incorporated into Rancho Ex Mission San Fernando, a large land grant comprising almost the entirety of the San Fernando Valley and was sold to Eulogio de Celis in 1846. In 1874, the heirs of De Celis sold the north half of the Rancho to a group of San Francisco-based investors, including State Senator Charles Maclay, George K. Porter, and Porter's cousin, Benjamin. While Maclay took the eastern third with the intention of establishing towns, and George Porter took the middle to raise livestock and plant crops, the land comprising Chatsworth and the neighboring community of Porter Ranch was controlled by Benjamin Porter, who had little interest in developing the land. As such, Chatsworth remained largely undeveloped until the late nineteenth century.

With the completion of the transcontinental railroad and the subsequent real estate boom in Southern California in the 1880s, several new towns were established in the San Fernando Valley, among them the town of Chatsworth Park. Chatsworth Park was subdivided in 1888 by investor George Crow; it was named after the Duke of Devonshire's country estate in England. Crow intended Chatsworth Park to be a picturesque agricultural community of small farms. He subdivided the land into ten-acre lots, perfect for small-scale cultivation.

Chatsworth Park remained sparsely developed until 1893 when the Southern Pacific Railroad constructed a spur line that branched off its main line at Burbank and terminated in Chatsworth Park. Upon completion of the spur line, the San Fernando Valley Improvement Company re-subdivided the town, orienting it around the Burbank Branch. A small town center, near the current intersection of Topanga Canyon Boulevard and Lassen Street, emerged at the end of the rail line. The town consisted of a railroad depot, inn, post office, and general store. A scattering of small houses and orchards surrounded the town

center, and in 1903, a cornerstone was laid for a new church (Chatsworth Community Church, Los Angeles Historic-Cultural Monument No. 14).

The completion of the railroad helped to bolster the town's economy by creating a way to market for local products. In particular, the rocky hills located just west of the town were well-suited to sandstone quarrying, a major boon to the local economy in the 1890s and 1910s. By the first decades of the twentieth century, agriculture had become the backbone of Chatsworth Park's economy, in large part due to the annexation of the town to the City of Los Angeles in 1915, providing a stable water source via the Los Angeles Aqueduct. The construction of the Chatsworth Reservoir in 1919 further increased the town's reliable water supply. A variety of crops, including lemons, oranges, melons, figs, potatoes, lima beans, and walnuts, soon comprised the vast expanses of Chatsworth's undeveloped land. By the 1920s, the "Park" in the town's name had been dropped, and the community had become known as "Chatsworth."

Beginning in the 1910s, Chatsworth was used as a filming location. Its picturesque landscape and rugged rock formations were the perfect backdrop for film and television productions set in the American West and various exotic locations. During the next several decades, the community was a widely-popular filming location, with most of the production activity taking place at the Chatsworth Reservoir or at various "movie ranches" located in the Santa Susana Pass. Famous movie ranches included Iverson Ranch, William S. Hart's Spahn Ranch, and the Corriganville and Bell Moving Picture ranches. By the 1930s and '40s, several film stars acquired ranch properties in Chatsworth, including Mae Marsh, Lionel Barrymore, Veronica Lake, and Dan Dailey, as well as the prolific television couple Lucille Ball and Desi Arnaz.

Postwar Development of Chatsworth

Prior to World War II, Chatsworth largely remained a "quiet agricultural community," its population meager even by Valley standards. However, like much of the Valley after the war, Chatsworth experienced tremendous development and growth, turning the once rural community into a sprawling and populous suburb. The community's vast expanses of agricultural land were soon swallowed up by mass-produced residential neighborhoods accompanied by an influx of commercial and institutional development. One-story strips malls and shopping plazas lined Chatsworth's major boulevards, and new public schools, parks, and churches were constructed in and around new residential tracts to serve the community's burgeoning population. Beginning in the mid-1950s, large tracts of land adjacent to the Southern Pacific Railroad tracks were rezoned to accommodate a variety of industrial uses, including manufacturing plants, service centers, and research and development laboratories. Aerospace and defense contractors, including Thompson-Ramo-Woolridge, and Atomics International, were among Chatsworth's foremost employers.

Chatsworth's development continued through the 1970s and into the present day with new gated residential neighborhoods in the Chatsworth hills, commercial infill on its corridors, and a several-hundred-acre industrial tract adjacent to the Browns Canyon channelized wash and the Metro Orange Line bus right-of-way (following the former Southern Pacific Railroad line).

Postwar Commercial Development

Lured by the industrial job market and the suburban lifestyle Chatsworth offered, thousands of families moved to the community after World War II, prompting the need for additional commercial services. Beginning in the 1950s, a number of zoning variances were passed to change areas zoned for agricultural use to commercially-zoned areas. By 1960, 139 acres were zoned for commercial use and another 104 acres for parking. By the mid-1960s, commercial centers had developed at several major intersections, including Canoga Avenue and Devonshire Street, Mason Avenue and Devonshire Street, Lassen Street and De Soto Avenue, and Lassen Street and Mason Avenue (the subject property). Postwar commercial growth primarily consisted of low-scale shopping plazas and strip malls fronted by large paved parking lots. These shopping centers typically contained drug stores, coffee shops, dry cleaners, and supermarkets that catered to the daily needs of its surrounding residential neighborhood.

In an effort to maintain Chatsworth's small-town, suburban appeal, residents have fought to uphold low-density zoning ordinances and limit higher-density residential and large-scale commercial development. As such, the community's commercial growth has largely been restricted to areas that had been developed for commercial use since the 1960s and '70s.

History of Safeway Stores, Inc.

The Safeway supermarket chain's origins date to the 1911 when Sam Seelig opened his first grocery store on Figueroa Street in Los Angeles. By 1922, the Seelig Co. operated over 100 stores in the city. In 1925, Seelig passed control of the company to its distributor and largest creditor, W.R.H. Weldon, who subsequently changed the name of the chain to Safeway Stores, Inc. In 1926, an investment group organized by Merrill, Lynch and Co. acquired 80 percent of the Safeway Stores stock for $3.5 million. Upon acquisition, Charles Merrill began searching for a merger partner and potential CEO for his new grocery store chain. Shortly thereafter, Merrill met Marion Skaggs, owner of the 1915 Skaggs grocery chain of American Falls, Idaho, and the two arranged a merger of the Safeway and Skaggs stores, resulting in one of the largest grocery chains in the western United States. Skaggs forewent control of his company in exchange for $1.5 million, 30,000 shares of the new company's stock, and the title of CEO. It was agreed the company would ultimately operate under the Safeway name (former Skaggs stores operated under the Skaggs-Safeway name while transitioning), and Oakland, California was chosen as its new headquarters.

In 1926, Safeway Stores, Inc. began acquiring additional grocery store companies throughout the United States, including 85 stores operated by the Chaffee chain in Southern California. Between 1926 and 1928, Safeway absorbed the Knoblock and Eastern Stores of Baltimore, Maryland; Sanitary of Washington, D.C. and Richmond, Virginia; the Sun chain of Tulsa, Oklahoma; Newway of El Paso, Texas; and MacDonald of Canada. By 1928, Safeway operated over 2,000 stores throughout the United States and Canada, with a total estimated sales of $125 million.

On July 10, 1931, it was announced that Safeway Stores, Inc. and MacMarr, a grocery chain acquired by Charles Merrill in 1929, would merge. The MacMarr Corporation was the result of a merger between the Ross McIntyre grocery chain of Portland, Oregon and the Charles Marr chain of Spokane, Washington. After creating the MacMarr Corporation, Charles Merrill acquired several west coast chains, and by 1930, MacMarr was operating more than 1400 stores. The 1931 Safeway-MacMarr merger made Safeway the second largest grocery in the country. Though growth slowed during the Great Depression, Safeway continued to make a profit. It was during the Depression that Safeway consolidated most of its stores, combining produce, groceries, meats, and self-service into a single "supermarket" style building, often featuring ample on-site parking.

The end of World War II brought tremendous growth for the grocery chain. In 1946, the company reported a 25 percent increase in sales from the year prior, a trend that continued in the following decades. In 1957, Safeway became the first western business and the youngest company in the country to exceed the $2 billion annual sales market. By the time the Safeway market opened at the corner of Lassen Street and Mason Avenue in Chatsworth, annual sales had surpassed $2.3 billion.

The Safeway supermarket at 9825 N. Mason Avenue was part of the chain's major expansion program in the 1960s. In addition to new stores in California and throughout the United States, multiple international stores opened in the United Kingdom in 1962, Australia in 1963, and Germany in 1964. The expansion program coincided with the development of a new "Safeway style," featuring bolder, more dynamic rooflines compared to the flat roof variations typical of early 1950s Safeways.

Following a decline in sales and a reduction in stores in the 1970s, the company began to expand, with acquisitions of markets in Australia and Northern California in the early 1980s. Following a hostile takeover bid by the Dart Group, owners of Trak Auto and Crown Books, Safeway was acquired by the New York investment firm of Kohlberg Kravis Roberts & Co. The acquisition resulted in the company's privatization and the accumulation of tremendous debt. Half of its stores were sold, and Safeway's presence was reduced to Northern California (its Southern California stores were sold to Vons), a few western states, and Washington, D.C.

Safeway began to recover from its 1980s acquisition beginning in the early 1990s when it went public again in an effort to fund growth. In 2015, the company's partner, AB Acquisition LLC, and Safeway completed a merger that created one of the largest food and drug stores in the nation. Safeway currently operates over 2,200 stores in 19 states.

Mid-Century Modernism

The former Safeway supermarket at 9825 N. Mason Avenue is an excellent example of Mid-Century Modern architecture applied to a commercial property. Mid-Century Modern is a classification often used to describe the various iterations of postwar Modern styles and sub-styles. It is a product of the International Style, which emerged out of Europe in the 1920s and is characterized in part by simple geometric forms and expressed structure and materials, and the work of local architects such as Frank Lloyd Wright, Rudolph Schindler and Irving Gill, who were working toward the establishment of a new American architecture. The resulting aesthetic represented a convergence of these two schools and the adaptation of their ideas and principles to the local climate, innovative new building technologies, and the postwar need for efficiently-built buildings and infrastructure to serve a growing population.

The basic characteristics of Mid-Century Modernism reflect the influence of the International Style and its expansion in the postwar era with the advent of new technologies in building and engineering. The style is generally characterized by its horizontal massing, geometric forms, smooth and textured contrasting wall surfaces, large expanses of glass, absence of exterior ornamentation, and expressed construction of wood, steel or concrete. Mid-Century Modernism is extremely versatile, lending its application to a number of property types, from single-family residences to commercial strips. The architectural mode is the most prolific of all the postwar modern styles, employed by local builders and noted architects alike.

Safeway Architecture in the 1950s and '60s

In the late 1950s and early 1960s, Safeway Stores, Inc. adopted a new, modern aesthetic for its buildings aimed at creating a "unique visual identity," that would be recognizable worldwide. Two main postwar variations of the Safeway supermarket were created and applied across the country and internationally in the United Kingdom, Australia, and Germany. Both variations exemplify the tenets of Mid-Century Modern architecture.

The first of the variations was known as the Marina type. The Marina type was named after the first store of its design, which opened in 1959 in the Marina district in San Francisco; it was designed by noted San Francisco architects Wurster, Bernardi and Emmons.[46] The Marina type features a low-pitched barrel-or bell-shaped roof and extensive glazing at its primary façade. The glazed entry is typically flanked by walls clad with masonry, textured concrete, or wood screens. The building's structural system is often expressed through its glue-laminated (glulam) beams visible at the eaves, gable end, and ceiling of the interior.

The second, and lesser-known, variation is similar to the Marina type, but it has a gable roof rather than a barrel-or bell-shaped roof. Like the Marina type, the low-pitched gable roof type became popular in the late 1950s and early 1960s. In addition to its low-pitched gable roof the

type often retains wide eaves with exposed glulam beams, and a large glazed window system flanked by walls of masonry, textured concrete, or wood screens. The former Safeway supermarket at 9825 N. Mason Avenue is an example of the low-pitched gable roof type.

In the 1970s, Safeway began to move away from its 1960s Mid-Century Modern designs in favor of boxier silhouettes and unarticulated stucco surfaces, typical of chain stores to this day.

State and Local Eligibility Criteria

California Register of Historical Resources

The California Register of Historical Resources (California Register) is the authoritative guide to the state's significant historical and archeological resources. In 1992, the California legislature established the California Register "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change." The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for historic preservation grant funding; and affords certain protections under CEQA. All resources listed on or formally determined eligible for the National Register are automatically listed in the California Register. In addition, properties designated under municipal or county ordinances, or through local historic resources surveys, are eligible for listing in the California Register.

For inclusion in the California Register, a historical resource must be significant at the local, state, or national level under one or more of the following criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area state or the nation.

For listing in the California Register, a property must be eligible against one or more of the above criteria, and it must retain integrity. Integrity is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. For inclusion in the California Register, "historical resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance." Integrity is evaluated with regard to the retention of the following seven aspects: location, design, setting, materials, workmanship, feeling, and association.

There is no prescribed age limit for listing in the California Register, although California Register guidelines state "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource."

Resources may be nominated directly to the California Register. They are also automatically listed in the California Register if they are listed in or have been officially determined eligible for the National Register. State Historic Landmarks #770 and forward are also automatically listed in the California Register.

The California Historical Resource Status Codes are a series of ratings created by the California Office of Historic Preservation (OHP) to identify the historic status of resources listed in the State's historic properties database. These codes were revised in August 2003 to better reflect the many historic status options available to evaluators. The following are the seven major status code headings:

1. Properties listed in the National Register or the California Register.
2. Properties determined eligible for listing in the National Register or the California Register.
3. Properties that appear eligible for listing in the National Register or California Register through survey evaluation.
4. Properties that appear eligible for listing in the National Register or California Register through other evaluation.
5. Properties recognized as historically significant by local government.
6. Properties that are not eligible for listing or designation.
7. Properties that are not evaluated for listing in the National Register or California Register or that need reevaluation.

Under each status code heading, properties are then given a letter code that indicates whether the resource is eligible individually (S), eligible as part of a district (D), or both (B).

City of Los Angeles Cultural Heritage Preservation Ordinance

This City of Los Angeles's Cultural Heritage Ordinance, enacted in 1962, lays out local regulations pertaining to the identification and protection of cultural and historical resources within the city. The Los Angeles City Council designates Historic-Cultural Monuments on recommendation of the City's Cultural Heritage Commission. Any individual or group may submit nominations for Historic-Cultural Monument status.

Under provisions guiding the preservation of historical resources, the City of Los Angeles has established a set of criteria under which a resource within the city can be found eligible as a historic resource. Per Chapter 9 Section 22.171.7 of the City's Administrative Code, a historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historic or cultural significance to the City of Los Angeles, meaning that it meets one or more of the following criteria:

1. It reflects or exemplifies broad cultural, political, economic, or social history of the nation, state, or community; or
2. It is identified with historic personages or with important events in the main currents of national, state, or local history; or
3. It embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction; or
4. It is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

Evaluation of Historical Significance

Previous Evaluations and Studies

A search of California's Historic Resources Inventory (HRI) and City of Los Angeles' historic resources surveys and designated Historic-Cultural Monuments revealed that the buildings located at 9733-9745, 9749-9753, 9755-9765, 9805, and 98359849 N. Mason Avenue; and 20504 and 20524 W. Lassen Street have not been identified as potential historic resources.

The former Safeway supermarket at 9825 N. Mason Avenue has been previously evaluated for historical significance. A search of City documents conveyed the following:

> Between June 2014 and June 2015, Architectural Resources Group (ARG) conducted a survey of the Chatsworth-Porter Ranch Community Plan Area (CPA) as part of the City of Los Angeles's citywide historic resources survey (SurveyLA). The Chatsworth-Porter Ranch CPA survey identified 30 potentially significant individual resources. The survey gave the property at 9825 N. Mason Avenue (the former Safeway) a 3 status code, indicating the building appears individually eligible for the National Register through survey evaluation.

Evaluation of Significance

With the exception of the former Safeway supermarket (9825 N. Mason Ave.), none of the properties on the Project site appear eligible for listing in the California Register of Historical Resources or as a Historic-Cultural Monument under the City of Los Angeles Cultural Heritage Preservation Ordinance.

Due to their nearly identical development history, all commercial buildings on the Project site (excluding 9825 N. Mason Ave.) received a single evaluation under California Register and local criteria. The single-family residence (20524 W. Lassen St.) received a separate evaluation under state and local criteria.

Properties at 9733-9745, 9749-9753, 9755-9765, 9835-9849 N. Mason Avenue and 20504 W. Lassen Street

California Register Determination: Extensive research did not indicate any significant historical associations with the buildings. The buildings do not appear eligible for listing under California Criterion 1 for association with a significant event or pattern of events. Constructed between 1960 and 1961, the buildings are generally associated with postwar commercial development in the Chatsworth community, prompted by Southern California's population boom and subsequent need for additional services after World War II. The buildings were among hundreds of commercial properties constructed along Chatsworth's major corridors in the postwar period, and are not unique in their ability to convey this association. The buildings are not associated with significant persons (Criterion 2). All of the buildings have been owned by multiple individuals, none of whom appeared to be significant to local, state, or national history. The properties are modest, vernacular retail buildings and are not architecturally significant. Furthermore, none of the architects or builders listed on building permits appear to rise to the level of master. Thus, the buildings appear ineligible under Criterion 3.

City Historic-Cultural Monument Determination: Though broadly associated with widespread postwar commercial development that occurred in Chatsworth and throughout Southern California, the commercial buildings are not unique in their ability to convey this association, and therefore do not appear eligible under local Criterion 1. None of the buildings identify with significant persons or important local, state, or national events and thus do not appear eligible under local Criterion 2. All of the properties are modest, vernacular retail buildings and do not possess distinguishing characteristics of a style, period, or method of construction. Moreover, research did not indicate the architects and builders associated with the properties rise to the level of master. Thus, the buildings appear ineligible under local Criteria 3 and 4.

Property at 20524 W. Lassen Street

California Register Determination: The property has associations with Chatsworth's early agricultural history as a 1920s farmhouse. However, due to alterations, it does not retain sufficient integrity to convey this association. Along with the addition to the west elevation of the building, all of its fenestration has been removed, boarded up, or replaced, and windows appear to have been added to the side elevations. Furthermore, the building's agricultural setting was diminished when the orchards comprising the farm were uprooted beginning in the early 1950s. Thus, the property does not appear eligible under California Criterion 1.

The building is associated with the Giuseppe Viarengo family who owned and occupied the residence and farm until at least 1940. Giuseppe Viarengo was an Italian immigrant who arrived in California by way of New York around 1919. The 1930 U.S. Census lists Giuseppe as a "general farmer." By 1956, most of the farm had been subdivided, and the house had been sold to John H. Newman. By 1991, Theodore Lapadakis of Hercules Real Estate and Property Management (and of Hercules Distribution, Ltd.) owned

the property. Research did not indicate these individuals were significant to the history of the city, state, or nation. As such, the building does not appear eligible under Criterion 2. The residence was constructed as a modest, vernacular interpretation of the Craftsman style, with no distinguishing characteristics, and, though the architect and builder are unknown, its modesty does not suggest it is the work of a master. Thus, the building does not appear eligible under Criterion 3.

City Historic-Cultural Monument Determination: Though the single-family dwelling is associated with significant geographical patterns related to early agricultural development in Chatsworth, a condition of local Criterion 1, the residence and its original farm setting have been altered and no longer convey this historic association. Per the above discussion under California Criteria, the building is not associated with significant persons, and it does not identify with important local, state, or national events. As such, the property does not appear eligible under Criterion 2. The dwelling is a modest, vernacular interpretation of Craftsman architecture and does not possess distinguishing characteristics of the style, period, or method of construction. Moreover, though the architect and builder are unknown, given its modesty, it is unlikely the building is associated with a master. Thus, the building does not appear eligible under local Criteria 3 and 4.

Property at 9825 N. Mason Avenue (Former Safeway Building)

California Register

Criterion 1: Association with a significant event or pattern of events. The former Safeway supermarket at 9825 N. Mason Avenue is generally associated with the widespread commercial development that occurred in Chatsworth and throughout Southern California after World War II. However, the property was one of hundreds of commercial buildings constructed in Chatsworth in the postwar period and is not unique in its ability to convey this association. Thus, the building does not appear eligible under California Register Criterion 1.

Criterion 2: Association with the life of a significant person. The building was originally owned by Don Mallas and occupied by Safeway. In 1970 Theodore Lapadakis, then-owner of the Hercules Distribution company, acquired the building and turned it into offices and storage. Research did not indicate either of these individuals is significant to local, state, or national history. Thus, the building does not appear eligible under Criterion 2 of the California Register.

Criterion 3: Embodies the distinctive characteristics with a type, period, or method of construction or possesses high artistic values, or represents the work of a master. The property at 9825 N. Mason Avenue was designed by architect George Kirkpatrick as a Mid-Century Modern-style supermarket. The building embodies the essential character-defining features of Mid-Century Modern architecture, including its horizontal massing (conveyed through its low-pitched roof), planar concrete and brick wall surfaces, large expanses of glazing at the primary elevation, and expressed structural system (i.e. exposed glulam beams).

Additionally, the building retains distinctive characteristics of the low-pitched gable roof model, a prominent design prototype for Safeway stores in the late 1950s and 1960s. In an effort to create a unique identity for their supermarkets that would be recognizable worldwide, Safeway developed two standard models in the late 1950s and 1960s – the Marina style and the low-pitched gable roof type – the latter of which 9825 N. Mason Avenue embodies. The building's low-pitched, asymmetrical roofline, exposed glulam beams, and glazed entry bounded by masonry-clad walls were primary features in the design of Safeway's prototype. For these reasons, the subject property appears eligible under Criterion 3 of the California Register.

Criterion 4: Potential to yield information important to prehistory or history. There is no known evidence that the building is associated with a known archaeological site or may be likely to yield information important in history or prehistory. It does not appear to be eligible under California Register Criterion 4.

City Historic-Cultural Monument Determination

Local Criterion 1: It reflects or exemplifies broad cultural, political, economic, or social history of the nation, state, or community. The building at 9825 N. Mason Avenue broadly reflects the widespread commercial development experienced in Chatsworth and throughout Southern California in the postwar period. Though generally associated with this development boom, the property was one of many retail buildings constructed in the area during this time and is not unique in its ability to convey this association. Thus, the building does not appear eligible under Criterion 1 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 2: It is identified with historic personages or with important events in the main currents of national, state, or local history. Per its evaluation under California Register Criterion 2, research did not indicate the individuals who have owned the building were significant to local, state, or national history. Moreover, though broadly associated with Chatsworth's postwar commercial development, research did not suggest the commercial building identifies with significant national, state, or local events. Thus, the property does not appear eligible under Criterion 2 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 3: It embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction. Per its evaluation under California Register Criterion 3, the building at 9825 N. Mason Avenue embodies distinguishing characteristics of the Mid-Century Modern style as well as Safeway's low-pitched gable roof design, a prototype developed by the company in the postwar period. The building's low-pitched roof, expansive use of glazing at the entry, unornamented wall surfaces, and expressed structural system are characteristic of both the Mid-Century Modern style and low-pitched gable roof type. Thus, the former supermarket appears eligible under Criterion 3 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 4: It is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age. 9825 N. Mason Avenue was designed by architect George Kirkpatrick and constructed by Richard Hall and the Modiano Construction Co. In addition to the supermarket, Kirkpatrick designed three other commercial buildings located in the Lassen-Mason shopping center. Research did not indicate George Kirkpatrick or Richard Hall was a master builder, designer, or architect. Therefore, the subject property does not appear eligible under Criterion 4 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Evaluation of Historical Integrity

The building at 9825 N. Mason Avenue retains sufficient integrity to convey its significance as a Mid-Century Modern supermarket. Its integrity of location, setting, workmanship, feeling, and association are largely intact. Though design and materials have been somewhat diminished due to alterations made to the building over time, no aspects of integrity have been lost altogether. The following is a detailed discussion of the building's integrity as it relates to its period of significance: 1961 under Criterion 3.

Location

The former Safeway supermarket has not been moved and remains in its original location. Therefore, it retains its integrity of location.

Design

The building at 9825 N. Mason Avenue is a Mid-Century Modern-style commercial building designed by George Kirkpatrick, a local architect who designed multiple buildings in the Lassen-Mason shopping center. Its original design was characterized by an open floor plan; horizontal massing; low-pitched, asymmetrical gable roof; unornamented brick and concrete cladding and finishes; exposed glulam beam roof structure; and entry composed of fixed aluminum windows and fully-glazed aluminum doors. The overall design of the building was intended to create a unique and recognizable identity for Safeway stores worldwide.

The building has endured some alterations to its original design. Its conversion into an office and storage space in 1970 resulted in the subdivision of its original open floor plan. At the same time, a mezzanine was added in the gable end of the primary (east) elevation, resulting in the alteration of original fixed aluminum windows and the installation of smaller aluminum sliders. Some of the windows at the primary elevation have been replaced with vertical wood paneling as well, and additional entrances were created at the north end of the east elevation and along the north elevation.

Although the building has undergone some alterations, its overall form and most of its original features and materials are intact enough to convey its original design. Therefore, the building retains its integrity of design.

Setting

Since its completion in 1961, the subject property has served as the anchor to a small commercial retail center at the corner of Lassen Street and Mason Avenue. The building sits at the north end of a one-story commercial strip. North of the building is a partially paved parking lot, additional 1960s commercial properties, and a modest 1920s farm house, a remnant of the original farm that comprised the commercial complex site prior to the 1950s. Since the 1960s and '70s, the area north, east, and west of the property has been characterized by single-family residential development, and the area south of the property has been largely developed with industrial buildings. Since the general character of the property site and its surroundings have remained the same, the former supermarket retains its integrity of setting.

Materials

The building at 9825 N. Mason Avenue sits on a concrete foundation and is constructed of wood and reinforced concrete panels. The building's primary (east) and north façades are partially clad in brick veneer, and a grouping of aluminum windows and fully-glazed aluminum doors comprise the main entrance to the building. Though some of its fenestration has been replaced with new aluminum fenestration, most of the building's materials remain intact. Thus, the property retains its integrity of materials.

Workmanship

The workmanship of the former Safeway store is characterized by the use of durable, prefabricated, and mass-produced components (glulam beams, precast concrete panels, and aluminum-framed fenestration), which were used in the construction of Safeways worldwide during the postwar period. The details of the decorative brickwork cladding the front wall are also intact. Given the overall materials and means of construction remain largely intact, the building retains its integrity of workmanship.

Feeling

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. Though features of the interior of the building, such as its open floor plan, have been obscured, the property is still recognizable as a 1960s Safeway supermarket. Its embodiment of the low-pitched gable roof model, which was used extensively by Safeway stores after World War II, is identifiable through its characteristic roofline and glazed central entrance bounded by walls of brick cladding. Furthermore, its materials and setting are largely intact. Thus, the building retains its integrity of feeling.

Association

Though the property no longer functions as a supermarket, the building's original design intent is still apparent, as is its appearance as a Mid-Century Modern commercial building. Given its intact Mid-

Century Modern design, an architectural mode that characterized 1950s and '60s Safeway supermarkets and Southern California's postwar architectural landscape in general, the building retains its integrity of association.

Impacts Analysis

Summary of Findings

The following properties, located on the Lassen-Mason Project site, were evaluated for potential historical significance.

- 9733-9745 N. Mason Avenue
- 9749-9753 N. Mason Avenue
- 9755-9765 N. Mason Avenue
- 9805 N. Mason Avenue
- 9835-9849 N. Mason Avenue
- 20524 W. Lassen Street
- 20504 W. Lassen Street
- 9825 N. Mason Avenue

As a result of this historical resources assessment, ARG finds all properties except for the building at 9825 N. Mason Avenue ineligible for listing in the California Register or as a Historic-Cultural Monument under the City of Los Angeles Cultural Heritage Preservation Ordinance.

The former Safeway supermarket (9825 N. Mason Ave.) retains sufficient integrity to convey its significance as a Mid-Century Modern-style supermarket. It appears eligible under California Register Criterion 3 and City of Los Angeles Cultural Heritage Preservation Criterion 3, and is therefore a historical resource for the purposes of CEQA.

Significance Threshold

A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. According to California CEQA Guidelines, a project has the potential to impact a historical resource when the project involves a "substantial adverse change" in the resource's significance. Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

The significance of an historical resource is materially impaired when a project:

a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources; or

b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project by a preponderance of evidence that the resource is not historically or culturally significant; or

c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.

According to the City of Los Angeles CEQA Thresholds Guide (2006, p. D.3-3 to D.3-4), a project would normally have a significant impact on historical resources if it would result in a substantial adverse change in the significance of a historical resource. A substantial adverse change in significance occurs if the project involves:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;
- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or
- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.

Secretary of the Interior Standards

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* were developed by the National Park Service and are referred to by Federal, State, and local authorities as well as architects and other historic preservation professionals to guide the treatment of historic properties.[55] Four treatment approaches are defined for historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. The National Park Service advises that the approach most appropriate to the historic property and to the project should be identified by considering, among other factors, the relative importance of the historic resources, its physical condition, the proposed use, and whatever mandated code requirements may apply.

Since the building to be potentially impacted is generally being considered for alterations and additions to accommodate new uses, the *Secretary of the Interior's Standards for Rehabilitation* (the *Standards*) are the appropriate treatment approach to apply to the Project. Rehabilitation as a treatment approach is defined as follows:

> *(T)he act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.*

The *Secretary of the Interior's Standards for Rehabilitation* are as follows:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The *Standards* are applied in order to determine impacts to historic resources under CEQA. Typically, the *Standards* are applied on a project-level basis. A project that meets the *Standards* is considered to have no

adverse effect on historic resources. Below is an analysis of the proposed project in terms of its impact on the historic resource of the former Safeway store, which was identified as potentially significant in SurveyLA and evaluated as eligible for Los Angeles Historic-Cultural Monument listing in this analysis.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

   The project meets Standard #1. The adaptive reuse of the building as a fitness club requires features and spaces not dissimilar to those of a supermarket: a retail presence on the front façade and a large open central interior space, supplemented with smaller functional spaces to support the activities of the main space.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

   The Project meets Standard #2. The removal of some of the buildings on the site that were constructed as a part of the same shopping center does not impact the integrity of the former Safeway store, which is significant in its own right without the neighboring buildings. The resource will remain attached to a row of existing shops. Although these will be remodeled, the basic configuration of a large retail building set in a parking lot and connected to a strip of smaller retail will be maintained as its setting, preserving spatial relationships.

   The interior spaces of the building were previously altered when the building was converted from a supermarket to a distribution center. A largely open interior will be maintained in the new use. The remaining interior features that impact the property's character are the gluelam beams. These are a part of the structure of the building and will not be altered.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

   The Project meets Standard #3. No conjectural features or elements from other historic properties are proposed as a part of the treatment of the former Safeway or surrounding buildings.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

   The Project meets Standard #4. No changes to the property outside of the period of significance were identified that have acquired significance over time. The period of significance is the year that the property was constructed, which is when it acquired its character-defining features.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

   The Project meets Standard #5. The property's distinctive materials and features include buff brick cladding, front planters, a mostly glazed front façade, a concrete frame, and gluelam roof beams exposed on the interior and extending to the exterior eaves. All of these exterior features will be preserved and new signage will be incorporated with the same design and placement strategy as the original signage.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence

   The Project can meet Standard #6 with the provisions detailed below under Mitigation Measures, in which each character- defining feature identified and the potential impact of the Project is called out separately.

   To repair poorly patched areas of the brickwork, damaged brick should be replaced with salvaged matching brick from the demolished buildings on the property.

   To repair the colored obscure glass cut-outs in the brick walls on the primary façade, the glass must be salvaged and remounted in the same locations with new glazing sealant/putty.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

   The Project meets Standard #7. No such treatments are anticipated to be necessary for historic materials, which are limited to brick, gluelam beams, and painted concrete.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

   Refer to response to Checklist Question 5(b).

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

   The Project meets Standard #9. The Project involves adjacent new construction on the property and alteration of adjoining buildings that are not historic resources.

The alteration of adjoining buildings involves larger signage and remodeling of the facades and storefronts of non-historic components of the property and will not significantly diminish the setting of the former Safeway building. The Safeway building will maintain a similar parking lot setback and relationship to smaller adjacent retail stores.

The major exterior alteration to the building itself is additional glazed openings within the structural bays of the north façade. This is a secondary façade. The rhythm of the bays will remain visible with the concrete structural piers exposed. The solid wall that characterizes the infill of the bays will otherwise remain.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The Project meets Standard #10. New construction on the property does not destroy historic features of the former Safeway store or impair the integrity of its environment. The setting of the building will remain similar, with a large parking lot and adjacent one-story retail storefronts. As designed, the treatment of the building's exterior will not involve irreversible alterations that have an adverse impact on character-defining features.

Conclusion

The Project involves the rehabilitation of one building, a former Safeway store, determined by this report to be a historic resource for purposes of CEQA. It also involves demolition of several buildings on the property that were determined not to be historic resources for purposes of CEQA. Their demolition would not impact historic resources. The adaptive reuse of the former Safeway building, which is the one historic resource on the property, involves its conversion to a fitness center, which is an appropriate new use that requires a minimum of changes to the historic resource. With implementation of Mitigation Measures 5-1, the Project would be developed to maintain the character-defining features of the exterior, particularly the roofline and the primary (east) façade. Minor changes, limited mostly to new openings, are proposed to the north façade, which is a secondary façade. This approach would maintain the major features of the façade while bringing more natural light to the interior and improving circulation. ARG has determined that the Project as presented meets the Secretary of the Interior's Standards and would not have a significant adverse impact on historic resources.

Thus, the Project would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. Therefore, Project impacts related to historical resources would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?

Less Than Significant Impact. Based on a records search conducted by the South Central Coast Information Center (refer to Appendix C), no archaeological resources have been identified at the Project site or within the 0.5-mile search radius from the Project site. It is possible that unknown archaeological resources could exist at the Project site, given the relative sensitivity of the Project region for archaeological resources. As such, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find shall stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. However, construction activities could continue in other areas of the Project site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law. Through compliance with these requirements, potential Project impacts to unknown archaeological resources would be less than significant.

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

Less Than Significant Impact. The Project site does not contain any unique geologic features. A records search was conducted with the Los Angeles County Natural History Museum to determine the likelihood for unique paleontological resources to occur at the Project site (refer to Appendix C). The records search revealed that the surface soil deposits at the Project site and surrounding area consist of younger Quaternary Alluvium derived from alluvial fan deposits from the Santa Susana Mountains to the north. These younger Quaternary deposits typically do not contain significant vertebrate fossils in the uppermost layers. However, fossils have been found in the sedimentary deposits that exist within the Project site area. As such, there is a possibility that unknown paleontological resources could be encountered during the Project's excavation phase. However, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying paleontological or unique geologic resources or sites from the Project site. In addition, in the event that paleontological resources or sites, or unique geologic features are exposed during Project construction, work within 50 feet of the find shall stop until a professional paleontologist, can identify and evaluate the significance of the discovery and develop recommendations for treatment. However, construction activities could continue in other areas of the Project site. Recommendations could include a preparation of a Treatment Plan, which could require recordation, collection, and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting

documentation in an appropriate depository. Any paleontological resources or sites, or unique geologic features shall be treated in accordance with State Law. Through compliance with these requirements, potential Project impacts to unknown paleontological resources or sites, or unique geologic features would be less than significant.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. No human remains are known to exist at the Project site. However, in accordance with the State's Health and Safety Code Section 7050.5, in the event of discovery or recognition of any human remains at the Project site, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Los Angeles County Coroner has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The Coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the Coroner of the discovery or recognition of the human remains. If the Coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Through compliance with this regulation, potential Project impacts to human remains would be less than significant.

Mitigation Measures (Cultural Resources)

To ensure that Project impacts related to historical resources would be less than significant, the following mitigation measure is required:

5-1: Prior to issuance of a Certificate of Occupancy, the Project Applicant shall coordinate with the Department of Building and Safety to ensure that the following features have been incorporated into the Project:

- Low-pitched gable roof: All enclosures for mechanical equipment that must be placed on the roof should avoid visibility from the primary façade or the main view from the northwest corner of the former Safeway building.

- Exposed glulam roof beams, exposed at the gable ends, on the north façade eaves, and at the interior ceiling: Where unpainted, gluelam beams shall remain unpainted in order to show the

striations of the layers of wood. This applies chiefly to the interior, as the exterior beam ends have been painted.

Interior beams should remain exposed. If they are covered, the treatment should be reversible in accordance with Standard #2.

- Unornamented buff-colored brick veneer with raked horizontal joints: The brick of the front façade that has been poorly patched in limited areas on the façade and planters shall be cleaned of excess mortar and the bricks re-set properly to match adjacent unaltered surfaces and mortar joints. Any new brick that is needed for repairs should be salvaged from the smaller buildings on the site that were built concurrently of the same materials but which were determined not to be historic resources.

- Painted concrete wall panels: The essential character of the closed façade marked by concrete structural bays shall remain.

- Floor-to-ceiling window arrangement at the entrance to the primary (east) façade: This area shall maintain the same configuration. The non-original fenestration shall be replaced. No changes to the arrangement of brick features on the primary façade shall occur.

- Pattern of punched rectangular windows with obscure glass in multiple colors at the primary facades: Salvage and reuse the colored glass, which is an original feature. Source similar glass where panes may be broken. Remount original glass in original openings with a new sealant or putty as appropriate to maintain historic appearance of this feature.

Cumulative Impacts

Impacts related to cultural resources are site-specific and are assessed on a site-by-site basis. All development in the City (including the proposed Project and the related projects) that involves ground-disturbing activities is required to implement the City's Standard Conditions of Approval related to archaeological and paleontological resources. Additionally, these projects are required to comply with State's Health and Safety Code Section 7050.5 in the event of discovery or recognition of any human remains. Through compliance with existing requirements, cumulative impacts related to cultural resources would be less than significant.

6. GEOLOGY AND SOILS

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?

No Impact. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone, and no known faults exist on the Project site.[7] The closest active fault to the Project site is the Santa Susana Fault Zone, located approximately four miles north of the site. Thus, the Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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 on the Project site. Therefore, no significant impacts related to this issue would occur.

(ii) Strong seismic ground shaking?

Less Than Significant Impact. Given the Project site's location in a seismically active region, the Project site could experience seismic ground shaking in the event of an earthquake. However, the Project Applicant would be required by the City to design and construct the Project in conformance to the most recently adopted Building Code and applicable recommendations made in a Final Geotechnical Report prepared for the Project. Conformance with the City's current Building Code requirements would minimize the potential for structural failure, injury, and loss of life during an earthquake event and thus, not cause or accelerate geologic hazards or expose people to substantial risk of injury associated with strong seismic ground shaking. Therefore, Project impacts related to ground shaking would be less than significant.

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

Less Than Significant Impact. According to the Geotechnical Engineering Investigation prepared for the Project (refer to Appendix D), the Project site is not located in an area designated by the State as a liquefaction hazard zone. Groundwater was not encountered at the Project site in soil borings at the site and is estimated to be below 50 feet below ground surface. For these reasons, the subsurface conditions at the Project site are not considered subject to liquefaction. Regardless of this, Project Applicant would be required by the City to design and construct the Project in conformance to the most recently adopted Building Code and applicable recommendations made in a Final Geotechnical Report prepared for the Project, including building standards and recommendations to prevent potential adverse effects associated with liquefaction. Conformance with the City's current Building Code requirements would minimize the potential for structural failure, injury, and loss of life during an earthquake event and thus, not cause or accelerate geologic hazards or expose people to substantial risk of injury associated with liquefaction. Therefore, no significant impacts related to liquefaction would occur.

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[7] *Krazan & Associates, Inc., Geotechnical Engineering Investigation, October 5, 2016 (refer to Appendix D).*

(iv) Landslides?

No Impact. The Project site and surrounding area are flat and not subject to landslides. Therefore, no impacts related to this issue would occur.

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

Less Than Significant Impact. During the Project's construction phase, the Project developer would be required to implement SCAQMD Rule 403 – Fugitive Dust to minimize wind and water-borne erosion at the site. Also, the Project developer would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented during Project construction. The SWPPP would include best management practices (BMPs) and erosion control measures to prevent pollution in storm water discharge. Typical BMPs that could be used during construction include good-housekeeping practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by the City for compliance with the City's Development Best Management Practices Handbook, Part A, Construction Activities. Additionally, all Project construction activities would comply with the City's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Through compliance with these existing regulations, the Project would not result in any significant impacts related to soil erosion during the construction phase. Additionally, during the Project's operational phase, most of the Project site would be developed with impervious surface, and all stormwater flows would be directed to storm drainage features and would not come into contact with bare soil surfaces. Thus, no significant impacts related to erosion would occur as a result of Project operation.

c) Would the project 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. In 1990, the California State Legislature passed the Seismic Hazard Mapping Act to protect public safety from the effects of strong shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. The Act requires that the State Geologist delineate various seismic hazards zones on Seismic Hazard Zones Maps. Specifically, the maps identify areas where soil liquefaction and earthquake-induced landslides are most likely to occur. Impacts related to liquefaction are discussed in response to Checklist Question 6(a)(iii). Impacts related to landslides are

discussed in response to Checklist Question 6(a)(iv). As stated previously, the Project Applicant would be required by the City to design and construct the Project in conformance to the most recently adopted Building Code and applicable recommendations made in a Final Geotechnical Report prepared for the Project. Conformance with the City's current Building Code requirements would minimize the potential for settlement to occur at the Project site. Therefore, Project impacts related to settlement would be less than significant.

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

Less Than Significant Impact. Based on the Geotechnical Engineering Investigation prepared for the Project (refer to Appendix D), soils at the Project site have a very low potential. Nonetheless, the Project Applicant would be required by the City to design and construct the Project in conformance to the most recently adopted Building Code and applicable recommendations made in a Final Geotechnical Report prepared for the Project. Conformance with the City's current Building Code requirements would ensure that no significant impacts related to expansive soil would occur as a result of the Project. Therefore, Project impacts related to expansive soils would be less than significant.

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

No Impact. The Project would connect to the City's existing sewer system and would not require the use of septic tanks or alternative wastewater disposal systems. Thus, the Project would not result in any impacts related to soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Therefore, no impacts related to this issue would occur.

Cumulative Impacts

Geotechnical impacts related to future development in the City involve hazards related to site-specific soil conditions, erosion, and ground-shaking during earthquakes. The impacts on each site are specific to that site and its users and would not be in common or contribute to (or shared with, in an additive sense) the impacts on other sites. In addition, development on each site is subject to uniform site development and construction standards that are designed to protect public safety. Therefore, cumulative geotechnical impacts related would be less than significant.

7. GREENHOUSE GAS EMISSIONS

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

Less Than Significant Impact. The GHG emissions modeling results are included in Appendix B.

Background

Various gases in the Earth's atmosphere, classified as atmospheric GHG emissions, play a critical role in determining the Earth's surface temperature. Solar radiation entering Earth's atmosphere is absorbed by the Earth's surface. When the Earth emits this radiation back toward space, the radiation changes from high-frequency solar radiation to lower-frequency infrared radiation. GHG emissions are transparent to solar radiation and absorb infrared radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

GHG emissions that contribute to the greenhouse effect include:

- Carbon Dioxide (CO_2) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. CO_2 emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems. CO_2 comprises over 80 percent of GHG emissions in California.[8]

- Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment. Mobile sources represent 0.5 percent of overall methane emissions.[9]

- Nitrous Oxide (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Mobile sources represent about 14 percent of N_2O emissions.[10] N_2O emissions from motor vehicles generally occur directly from operation of vehicles.

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[8] *California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 11.*

[9] *United States Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2003, April 2005 (EPA 430-R-05-003)*

[10] *United States Environmental Protection Agency, U.S. Adipic Acid and Nitric Acid N2O Emissions 1990-2020: Inventories, Projections and Opportunities for Reductions, December 2001*

- Hydrofluorocarbons (HFCs) are one of several high global warming potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.

- Perfluorocarbons (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.

- Sulfur Hexafluoride (SF_6) is another high GWP gas that is not naturally occurring and are generated in a variety of industrial processes. Emissions of SF_6 are generally negligible from motor vehicles.

For most non-industrial development projects, motor vehicles make up the bulk of GHG emissions, particularly carbon dioxide, methane, nitrous oxide, and HFCs.[11] As shown on Table IV-7, the other GHGs are less abundant but have higher GWP than CO_2). To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted. High GWP gases such as HFCs, PFCs, and SF_6 are the most heat-absorbent.

Table IV-7
Global Warming Potential for Greenhouse Gases

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265
Perfluorocarbons (PFCs)	7,000 – 11,000
Hydrofluorocarbons (HFCs)	100 – 12,000
Sulfur Hexafluoride (SF_6)	23,500

Note: Global warming potential measures how much heat a GHG traps in the atmosphere, in this case, over a 100-year period.
Source: California Air Resources Board, First Update to the Climate Change Scoping Plan. May 2014.

The effects of increasing global temperature are far-reaching and difficult to quantify. If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the

[11] *California Air Resources Board, Climate Change Emission Control Regulations, 2004*

snowpack portion of the supply could potentially decline by 70 to 90 percent by the end of the 21st century. This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system. Sea level has risen approximately seven inches during the last century and, according to the CEC report, it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels. If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion, and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the perturbations in climate, could also result.

While efforts to reduce the rate of GHG emissions continue, the state has developed a strategy to adapt public infrastructure to the impacts of climate change. The 2009 California Climate Adaptation Strategy (Strategy) analyzes risks and vulnerabilities and proposes strategies to reduce risks. The Strategy begins what will be an ongoing process of adaptation, as directed by Governor Schwarzenegger's Executive Order S-13-08. The Strategy analyzes two components of climate change: (1) projecting the amount of climate change that may occur using computer-based global climate models and (2) assessing the natural or human systems' abilities to cope with and adapt to change by examining past experience with climate variability and extrapolating from this to understand how the systems may respond to the additional impact of climate change. The Strategy's key preliminary adaptation recommendations include:

- Appointment of a Climate Adaption Advisory Panel;
- Improved water management in anticipation of reduced water supplies, including a 20 percent reduction in per capita water use by 2020 from 2011 levels;
- Consideration of project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding due to climate change;
- Preparation of agency-specific adaptation plans, guidance or criteria by September 2010;
- Consideration of climate change impacts for all significant state projects;
- Assessment of climate change impacts on emergency preparedness;
- Identification of key habitats and development of plans to minimize adverse effects from climate change;
- Development of guidance by the California Department of Public Health by September 2010 for use by local health departments to assess adaptation strategies;

- Amendment of General Plans and Local Coastal Plans to address climate change impacts and to develop local risk reduction strategies; and

- Inclusion of climate change impact information into fire program planning by state fire fighting agencies.

Regulatory Setting

International

Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States (the "U.S.") joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (the "UNFCCC") agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG emissions in the U.S. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto Protocol (the "Protocol") is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the U.S. is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the U.S. is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Protocol.

The major feature of the Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions. The targets amount to an average of five percent reduction levels against 1990 levels over the five-year period 2008-2012. The major distinction between the Protocol and the UNFCCC is that while the UNFCCC encouraged industrialized countries to stabilize GHG emissions, the Protocol commits them to do so. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

On December 12, 2015, a Conference of the Parties to the UNFCCC and the 11th session of the Kyoto Protocol negotiated an agreement in Paris that would keep the rise of temperature below 2 degrees Celsius. While 186 countries published their action plans detailing how they plan to reduce their GHG emissions, these reductions would still result in up to 3 degrees Celsius of global warming. The Paris agreement asks all countries to review their plans every five years from 2020 and acknowledges that $100

billion is needed each year to enable countries to adapt to climate change. The agreement would be signed into law on April 22, 2016 and would require ratification by 55 countries representing 55 percent of emissions.

The Western Regional Climate Action Initiative

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region's electricity, industrial, and transportation sectors with the goal to reduce the heat trapping emissions that cause global warming to 15 percent below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50 percent and 85 percent by 2050. California is working closely with the other states and provinces to design a regional GHG emissions reduction program that includes a cap-and-trade approach. CARB's planned cap and-trade program, discussed below, is also intended to link California and the other member states and provinces.

Federal

The United States Environmental Protection Agency (U.S. EPA) has historically not regulated GHG emissions because it determined the Clean Air Act did not authorize it to regulate emissions that addressed climate change. In 2007, the U.S Supreme Court found that GHG emissions could be considered within the Clean Air Act's definition of a pollutant.[12] In December 2009, U.S. EPA issued an endangerment finding for GHG emissions under the Clean Air Act, setting the stage for future regulation. In September 2009, the National Highway Traffic Safety Administration and U.S. EPA announced a joint rule that would tie fuel economy to GHG emissions reduction requirements. By 2016, this could equate to an overall light-duty vehicle fleet average fuel economy of 35.5 miles per gallon.

In June 2013, President Obama announced a Climate Action Plan that calls for a number of initiatives, including funding $8 billion in advanced fossil energy efficiency projects, calls for federal agencies to develop new emission standards for power plants, invests in renewable energy sources, calling for adaptation programs, and leading international efforts to address climate change. In September 2013, U.S. EPA announced its first steps to implement a portion of the Obama Climate Action Plan by proposing carbon pollution standards for new power plants.

Vehicle Standards

Other regulations have been adopted to address vehicle standards including the U.S. EPA and National Highway Traffic Safety Administration (NHTSA) joint rulemaking for vehicle standards.

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[12] *Massachusetts v. Environmental Protection Agency et al [127 S. Ct. 1438 (2007])*

- On March 30, 2009, the NHTSA issued a final rule for model year 2011.[13]
- On May 7, 2010, the U.S. EPA and the NHTSA issued a final rule regulating fuel efficiency and GHG emissions pollution from motor vehicles for cars and light-duty trucks for model years 2012–2016.[14]
- On August 9, 2011, U.S. EPA and NHTSA issued a Supplemental Notice of Intent announcing plans to propose stringent, coordinated federal GHG emissions and fuel economy standards for model year 2017-2025 light-duty vehicles.[15]
- NHSTA intends to set standards for model years 2022-2025 in a future rulemaking.[16]
- In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the U.S. EPA and the NHTSA announced fuel economy and GHG emissions standards for medium- and heavy-duty trucks that applies to vehicles from model year 2014–2018.[17]

Energy Independence and Security Act

Among other key measures, the Energy Independence and Security Act (EISA) would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile:

1) Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

2) Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

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[13] *NHSTA. 2009. Average Fuel Economy Standards Passenger Cars and Light Trucks Model Year 2011, Final Rule. 75 Fed. Reg. 25324.*

[14] *U.S. EPA. 2010. Light Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, Final Rule. 75 Fed. Reg. 25324.*

[15] *Available: http://www.gpo.gov/fdsys/pkg/FR-2011-08-09/pdf/2011-19905.pdf.*

[16] *NHSTA. 2012. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. 77 Fed. Reg. 62624.*

[17] *U.S. EPA Office of Transportation and Air Quality. 2011. EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium-and Heavy-Duty Vehicles. Available: http://www.epa.gov/otaq/climate/documents/420f11031.pdf. Accessed November 2011..*

3) While superseded by NHTSA and U.S. EPA actions described above, EISA also set miles per gallon targets for cars and light trucks and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

State

Assembly Bill 1493

California has adopted a series of laws and programs to reduce emissions of GHGs into the atmosphere. Assembly Bill (AB) 1493 was enacted in September 2003 and requires regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by vehicles used for personal transportation.

Executive Order S-3-05

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05, which set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The California Environmental Protection Agency formed a Climate Action Team that recommended strategies that can be implemented by State agencies to meet GHG emissions targets. The Team reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the Executive Order.[18] Furthermore, the report provided to Governor Schwarzenegger in 2006, referenced above, indicated that smart land use and increased transit availability should be a priority in the State of California.[19] According to the California Climate Action Team, smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

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[18] *California Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006.*

[19] *California Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 57.*

Executive Order B-30-15

On April 29, 2015, Governor Brown issued an executive order setting a statewide GHG emissions reduction target of 40 percent below 1990 levels by 2030. This action aligns the state's GHG emissions reduction targets with those set in October 2014 by the European Union and is intended to help the state meets its target of reducing GHG emissions 80 percent below 1990 levels by 2050. The measure calls on state agencies to implement measures accordingly and directs CARB to update the Climate Change Scoping Plan.

A recent study shows that the state's existing and proposed regulatory framework will allow the state to reduce its GHG emissions level to 40 percent below 1990 levels by 2030 (consistent with Executive Order B-30-15), and to 60 percent below 1990 levels by 2050. Even though this study did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, it demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the state to meet the 2030 and 2050 targets.[20]

AB 32

In September 2006, AB 32 was signed into law by Governor Schwarzenegger, focusing on achieving GHG emissions equivalent to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. It mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions. On June 1, 2007, CARB adopted three early action measures: setting a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[21] On October 25, 2007, CARB approved measures improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing PFCs from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emissions from the non-electricity sector. CARB also developed a mandatory reporting program on January 1, 2008 for large stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year and make up 94 percent of the point source CO_2 emissions in California.

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[20] *Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158-172).*

[21] *California Air Resources Board, Proposed Early Action Measures to Mitigate Climate Change in California, April 20, 2007.*

CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. This Scoping Plan, which was developed by CARB in coordination with the Climate Action Team, was first published in October 2008 (the "2008 Scoping Plan"). The 2008 Scoping Plan proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce the state's dependence on oil, diversify the state's energy sources, save energy, create new jobs, and enhance public health. An important component of the plan is a cap-and-trade program covering 85 percent of the state's emissions. Additional key recommendations of the 2008 Scoping Plan include strategies to enhance and expand proven cost-saving energy efficiency programs; implementation of California's clean cars standards and increasing the amount of clean and renewable energy used to power the state. Furthermore, the 2008 Scoping Plan proposes full deployment of the California Solar Initiative, high-speed rail, water-related energy efficiency measures, and a range of regulations to reduce emissions from trucks and from ships docked in California ports. As required by AB 32, CARB must update its Scoping Plan every five years to ensure that California remains on the path toward a low carbon future.

In order to assess the scope of reductions needed to return to 1990 emissions levels, CARB first estimated the 2020 business-as-usual (BAU) GHG emissions in the 2008 Scoping Plan. These are the GHG emissions that would be expected to result if there were no GHG emissions reduction measures, and as if the state were to proceed on its pre-AB 32 GHG emissions track. After estimating that statewide 2020 BAU GHG emissions would be 596 metric tons, the 2008 Scoping Plan then identified recommended GHG emissions reduction measures that would reduce BAU GHG emissions by approximately 174 metric tons (an approximately 28.4 percent reduction) by 2020.

On August 19, 2011, following legal action in opposition to the Scoping Plan, CARB updated the Scoping Plan through a Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED or 2011 Scoping Plan).[22] CARB updated its 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions achieved through implementation of regulations recently adopted for motor vehicles, building energy efficiency standards, and renewable energy.[23] Under that scenario, the state would have had to reduce its BAU GHG emissions by approximately 21.7 percent by 2020 (down from 28.4 percent).

On May 22, 2014, CARB approved its first update to the AB 32 Scoping Plan, recalculating 1990 GHG emissions using Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report (AR4) released in 2007. It states that based on the AR4 global warming potentials, the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit would be slightly higher than identified in the Scoping Plan, at 431 $MMTCO_2e$. Based on the revised estimates of expected 2020 emissions identified in the

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[22] *California Air Resources Board, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011.*

[23] *California Air Resources Board, Greenhouse Gas Inventory – 2020 Emissions Forecast, http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Accessed June 2014.*

2011 supplement to the FED and updated 1990 emissions levels identified in the draft first update to the Scoping Plan, achieving the 1990 emission level would require a reduction of 76 $MMTCO_2e$ (down from 507 $MMTCO_2e$) or a reduction by approximately 15.3 percent (down from 28.4 percent) to achieve in 2020 emissions levels in the BAU condition. The CARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2020 emissions level to the extent applicable by law by focusing on reductions from several sectors. [24,25]

As shown on Table IV-8, these reductions are to come from a variety of sectors, including energy, transportation, high-global warming potential sources, waste, and the state's cap-and-trade emissions program.

Nearly all reductions are to come from sources that are controlled at the statewide level by state agencies, including the Air Resources Board, Public Utilities Commission, High Speed Rail Authority, and California Energy Commission. The few actions that are directly or indirectly associated with local government control are in the transportation sector, which is charged with reducing 4.5 percent of baseline 2020 emissions. Of these actions, only one (GHG emissions reductions through coordinated planning) specifically identifies local governments as the responsible agency.

Cap-and-Trade Program

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

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[24] *ARB, First Update, p. 4, May 2014. See also id. at pp. 32–33 [recent studies show that achieving the 2050 goal will require that the "electricity sector will have to be essentially zero carbon; and that electricity or hydrogen will have to power much of the transportation sector, including almost all passenger vehicles."]*

[25] *ARB, First Update, Table 6: Summary of Recommended Actions by Sector, pp. 94-99, May 2014.*

Table IV-8
Emission Reductions Needed to Meet AB 32 Objectives in 2020

Sector	Million Metric Tons of CO_2e Reduction	Percent of Statewide CO_2e Inventory	Summary of Recommended Actions
Energy	-25	-4.9%	Reduce state's electric and energy utility emissions, reduce emissions from large industrial facilities, control fugitive emissions from oil and gas production, reduce leaks from industrial facilities
Transportation	-23	-4.5%	Phase 2 heavy-duty truck GHG emissions standards, ZEV action plan for trucks, construct High Speed rail system from SF to LA, coordinated land use planning, Sustainable Freight Strategy
High Global Warming Potential	-5	-1.0%	Reduce use of high-GWP compounds from refrigeration, air conditioning, aerosols
Waste	-2	-0.4%	Eliminate disposal of organic materials at landfills, in-state infrastructure development, address challenges with composting and anaerobic digestion, additional methane control and landfills
Cap and Trade Reductions	-23	-4.5%	Statewide program that reduces emissions from regulated entities through performance-based targets
Total	-78	-15.3%	

Source: California Environmental Protection Agency, "First Update to the Climate Change Scoping Plan." May 2014.

Under the Cap-and-Trade Program, covered entities that emit more than 25,000 metric tons CO_2e per year must comply with Program requirements. Triggering of the 25,000 metric tons CO_2e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or "MRR"). The CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the

Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate.

In sum, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the state's emissions forecasts and the effectiveness of direct regulatory measures.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with the electricity usage of most projects that are subject to CEQA are covered by the Cap-and-Trade Program.

While the 2020 cap would remain in effect post-2020,[26] the Cap-and-Trade Program is not currently scheduled to extend beyond 2020 in terms of additional GHG emissions reductions.[27] However, CARB has expressed its intention to extend the Cap-and-Trade Program beyond 2020 in conjunction with setting a mid-term target. The "recommended action" in the First Update for the Cap-and-Trade Program is: "Develop a plan for a post-2020 Cap-and-Trade Program, including cost containment, to provide market certainty and address a mid-term emissions target."[28] The "expected completion date" for this recommended action is 2017.[29] It is therefore reasonable to assume that the Cap-and-Trade Program will extend beyond 2020.

Senate Bill 1368

Senate Bill (SB) 1368, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emissions performance standards for the generation of electricity. These standards also apply to power that is generated outside of California and imported into the state.

SB 97 & CEQA Guidelines

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97), requiring the Governor's Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In

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[26] *California Health & Safety Code § 38551(a) ("The statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed.")*

[27] *See AB 1288 (Atkins, introduced 2015) that would eliminate the December 31, 2020, limit on the Cap-and-Trade Program.*

[28] *ARB, First Update to the Climate Change Scoping Plan: Building on the Framework, at 98 (May 2014).*

[29] *Id.*

response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010. The amendments provide guidance to public agencies on analysis and mitigation of the effects of GHG emissions in CEQA documents, including the following:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

SB 375

On September 30, 2008, SB 375 was instituted to help achieve AB 32 goals through regulation of cars and light trucks. SB 375 aligns three policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve GHG emissions reductions targets for the transportation sector. It establishes a process for CARB to develop GHG emissions reductions targets for each region (as opposed to individual local governments or households). SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

On October 24, 2008, CARB published draft guidance for setting interim GHG emissions significance thresholds. This was the first step toward developing the recommended statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on

common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). CARB's preliminary proposal consisted of a quantitative threshold of 7,000 metric tons (MT) of CO_2e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines.[30] There is currently no timetable for finalized thresholds.

On September 23, 2010, CARB adopted regional targets for the reduction of GHG emissions applying to the years 2020 and 2035.[31] For the area under the Southern California Association of Governments' (SCAG) jurisdiction - including the Project area - CARB adopted Regional Targets for reduction of GHG emissions by 8 percent for 2020 and by 13 percent for 2035. On February 15, 2011, the CARB's Executive Officer approved the final targets.[32]

Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

California Green Building Standards

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations (the "CCR"), is commonly referred to as the CALGreen Code. CALGreen was added to Title 24 to represent base standards for reducing water use, recycling construction waste, and reducing polluting materials in new buildings. In contrast, Title 24 focuses on promoting more energy-efficient buildings and considers the building envelope, heating and cooling, water heating, and lighting restrictions. The first edition of the CALGreen Code in 2008 contained only voluntary standards. The 2010 edition included mandatory requirements for state-regulated buildings and structures throughout California, including requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource

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30 *California Air Resources Board.* http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf

31 *California Air Resources Board. Notice of Decision: Regional Greenhouse Gas Emissions Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.* http://www.arb.ca.gov/cc/sb375/notice%20of%20decision.pdf

32 *ARB. 2011. Executive Order No. G-11-024: Relating to Adoption of Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.*

conservation, site irrigation conservation and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems are functioning at their maximum efficiency. The updated 2013 CALGreen Code became effective January 1, 2014 and includes new requirements for additions to existing residential and non-residential development.

Regional

South Coast Air Quality Management District Recommendations for Significance Thresholds

SCAQMD convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members included government agencies implementing CEQA and representatives from stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted interim GHG significance threshold for projects where the SCAQMD is lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of CO_2 equivalent ($MTCO_2e$) as a screening numerical threshold for stationary sources.

The SCAQMD has not adopted guidance for CEQA projects under other lead agencies. In September 2010, the Working Group released additional revisions which recommended a screening threshold of 3,500 $MTCO_2e$ for residential projects, 1,400 $MTCO_2e$ for commercial projects, and 3,000 $MTCO_2e$ for mixed use projects, additionally the Working Group identified project-level efficiency target of 4.8 $MTCO_2e$ per service population as a 2020 target and 3.0 $MTCO_2e$ per service population as a 2035 target. The recommended area wide or plan-level target for 2020 was 6.6 $MTCO_2e$ and the plan-level target for 2035 was 4.1 $MTCO_2e$. The SCAQMD has not established a timeline for formal consideration of these thresholds.[33] In the meantime, the project level thresholds are used as a non-binding guide; GHG emissions would be considered potentially significant in the absence of mitigation measures.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG emissions reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed or required by the Project.

SCAG Regional Transportation Plan/Sustainable Communities Strategy

SCAG's adopted its 2012-2035 Regional Transportation Plan Sustainable Communities Strategy (the "RTP/SCS") on April 4, 2012. The RTP/SCS plans to concentrate future development and provide higher

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[33] *SCAG, Final PEIR for the 2012-2035 RTP/SCS, Appendix G. Accessible at http://rtpscs, scag.ca.gov/Documents/peir/2012fPEIR_AppendixG_ExampleMeasures.pdf*

intensity development, including residential development, in proximity to transit hubs in order to reduce vehicle miles traveled (VMT) and thereby reduce GHG emissions from personal vehicles. To conduct required modeling analysis for the 2012-2035 RTP/SCS, SCAG distributes the growth forecast to transportation analysis zones (TAZs) to capture localized effects of the interaction of land use and transportation. The TAZ level maps have been development for the purpose of modeling performance only.[34] The growth and land use assumptions are to be adopted at the jurisdictional level.[35] Further, it is important to note that there is nothing in SB 375 that requires a city's "land use policies and regulations…to be consistent with the regional transportation plan or an alternative planning strategy."[36]

The RTP/SCS also includes an appendix listing examples of measures that could reduce impacts from planning, development and transportation.[37] It notes, however, that the example measures are "not intended to serve as any kind of checklist to be used on a project-specific basis." Since every project and project setting is different, project-specific analysis is needed to identify applicable and feasible mitigation. These mitigation measures are particularly important where streamlining mechanisms under SB 375 are utilized. Example GHG emissions reduction measures include the following:

- **GHG1**: SCAG member cities and the county governments may adopt and implement Climate Actions Plans (CAPS, also known as Plans for the Reduction of Greenhouse Gas Emissions as described in CEQA Guidelines Section 15183.5 Tiering and Streamlining the Analysis of Greenhouse Gas Emissions).

- **GHG2**: Project sponsors may require Best Available Control Technology (BACT) during construction and operation of projects, including:

    a) Solicit bids that include use of energy and fuel-efficient fleets;

    b) Solicit preference construction bids that use BACT, particularly those seeking to deploy zero- and/or near zero emission technologies;

    c) Employ use of alternative fueled vehicles;

    d) Use lighting systems that are energy efficient, such as LED technology;

    e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan;

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[34] *SCAG, 2012-2035 Regional Transportation Plan Sustainable Communities Strategy, p. 124.*

[35] *Id.*

[36] *California Gov't. Code §65080(b)(2)(E).*

[37] *SCAG, Final PEIR, 2012-2035 RTP/SCS, Appendix G:* http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf.

f) Streamline permitting process to infill, redevelopment, and energy-efficient projects;

g) Use an adopted emissions calculator to estimate construction-related emissions;

h) Use the minimum feasible amount of GHG-emitting construction materials that is feasible;

i) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;

j) Use of lighter-colored pavement where feasible;

k) Recycle construction debris to maximum extent feasible; and

l) Plant shade trees in or near construction projects where feasible.

- **GHG3**: Local jurisdictions can and may establish a coordinated, creative public outreach activities, including publicizing the importance of reducing GHG emissions and steps community members may take to reduce their individual impacts.

- **GHG4**: Pedestrian and Bicycle Promotion: Local jurisdictions may work with local community groups and business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation.

- **GHG5**: Waste Reduction: Local jurisdictions can and may organize workshops on waste reduction activities for the home or business, such as backyard composting, or office paper recycling, and may schedule recycling drop-off events and neighborhood chipping/mulching days.

- **GHG6**: Water Conservation: Local jurisdictions may organize support and/or sponsor workshops on water conservation activities, such as selecting and planting drought tolerant, native plants in landscaping, and installing advanced irrigation systems.

- **GHG7**: Energy Efficiency: Local jurisdictions may organize workshops on steps to increase energy efficiency in the home or business, such as weatherizing the home or building envelope, installing smart lighting systems, and how to conduct a self-audit for energy use and efficiency.

- **GHG8**: Schools Programs: Local jurisdictions may develop and implement a program to present information to school children about climate change and ways to reduce GHG emissions, and may support school-based programs for GHG emissions reduction, such as school based trip reduction and the importance of recycling.

On April 6, 2016, SCAG adopted its 2016-2040 RTP/SCS update, calling for a continuation of integrated planning for land use and transportation that will help achieve the State's goal of reducing per capita GHG emissions by eight percent by 2020 compared to 2005 levels, by 18 percent by 2035, and 21 percent by 2040. The Plan calls for public transportation improvements that will reduce GHG emissions per household by up to 30 percent, one percent reduction in GHG emissions from having zero emission vehicles, neighborhood vehicles, and car-sharing/ride-sourcing make up two percent of the vehicle fleet by 2040. However, until the 2016-2040 RTP/SCS is incorporated into the region's federally-approved AQMP, the 2012-2035 RTP/SCS is the relevant transportation plan for air quality regulatory purposes.

Local

In May 2007, the City adopted its Green LA Plan that that sets a goal to reduce the generation of GHG emissions 35 percent below 1990 levels by 2030. Key strategies include increasing the generation of renewable energy, improving energy conservation and efficiency, and changing land use patterns to reduce dependence on autos.

The City adopted a Green Building Ordinance in April 2008 that calls for reduction of the use of natural resources for new development.[38] The City's ordinance affects the following types of development:[39]

- New non-residential building or structures of 50,000 gross square feet or more of floor area;
- New mixed-use or residential building of 50,000 gross square feet or more in excess of six stores;
- New mixed-use or residential building of six or fewer stories consisting of at least 50 dwelling units in a building, which has at least 50,000 gross square feet of floor area, and in which at least 80 percent of the building's floor area is dedicated to residential units;
- The alteration or rehabilitation of 50,000 gross square feet or more of floor area in an existing non-residential building for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building;
- The alteration of at least 50 dwelling units in an existing mixed-use or residential building, which has at least 50,000 gross square feet of floor area, for which construction costs exceed a valuation of 50 percent of the replacement cost of the existing building.

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[38] *City of Los Angeles, Ordinance No. 179820, added to LAMC as Section 16.10 (Green Building Program).*

[39] *Projects that voluntarily commit to LEED certification at the Silver level or higher received expedited processing from the City.*

The City's Green Building Ordinance has several requirements that call for reductions in GHG emissions from reducing in energy use, water use, and solid waste generation from new non-residential buildings, including:

Section 99.04.304.1. Irrigation Controllers. When automatic irrigation system controllers for landscaping are provided and installed at the time of final inspection, the controllers shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change;

2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input. Buildings on sites with over 2,500 square feet of cumulative irrigated landscaped areas shall have irrigation controllers that meet the criteria in Section 99.04.304.1.

Section 99.04.303.4. Wastewater Reduction. Each building shall reduce by 20 percent wastewater by one of the following methods:

1. The installation of water conserving fixtures (water closets, urinals)

2. Utilizing non-potable water systems (captured rainwater, graywater, and municipally treated wastewater) complying with the current edition of the Los Angeles Plumbing Code or other methods.

Section 99.04.304.2. Outdoor Potable Water. Building on sites with 1,000 square feet or more of cumulative landscaped areas shall have separate meters or submeters for indoor and outdoor potable water use.

Section 99.04.304.3. Irrigation Design. Buildings on sites with 1,000 square feet or more of cumulative irrigated landscaped areas shall have irrigation controllers and sensors which include the following criteria and the manufacturer's recommendations.

Section 99.05.407.1. Weather Protection. Provide a weather-resistant exterior wall and foundation envelope as required by the Los Angeles Building Code section 1403.2 (Weather Protection) and California Energy Code Section 150, manufacturer's installation instructions, or local ordinance, whichever is more stringent.

Section 99.04.408. Construction Waste Reduction, Disposal And Recycling. Construction Waste Reduction of at Least 50 Percent. Comply with Section 66.32 et seq. of the LAMC.

Section 99.05.408.4. Excavated Soil and Land Clearing Debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a

phased project and when approved by the Department, such material may be stockpiled on site until the storage site is developed.

Section 99.05.410.1. Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

Section 99.05.504.3. Covering of Duct Openings and Protection of Mechanical Equipment During Construction. At the time of rough installation, or during storage of the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the Department to reduce the amount of dust or debris which may collect in the system.

Section 99.05.504.4.6. Resilient Flooring Systems. For 50 percent of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools criteria and listed on its Low-emitting Materials List or certified under the Resilient Floor Covering Institute FloorScore program.

Existing Emissions

Currently, the Project site includes 40,040 square feet of retail uses; a 19,569-square-foot RV and boat storage facility; a 1,032 square-foot automobile care center; 1,606 square-foot single-family residence; and surface-level parking. As shown on Table IV-9, existing development generates approximately 839 metric tons of CO_2e annually, with the majority of emissions generated by mobile sources traveling to and from the Project site.

Table IV-9
Existing Annual CO_2e GHG Emissions (Metric Tons per Year)

Scenario and Source	CO_2	CH_4	N_2O	CO_2e
Area Sources	<1	0	0	<1
Energy Sources	193	<1	<1	194
Mobile Sources	606	<1	0	607
Waste Sources	6	<1	0	15
Water Sources	21	<1	<1	23
Total Emissions	826	<1	<1	839

Source: DKA Planning, 2016 based on CalEEMod 2016.3.1.

Methodology

The methodology utilized for the following analysis is based on a Technical Advisory released by the OPR on June 19, 2008 titled *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. Both one-time emissions and indirect emissions

are expected to occur each year after build-out of the Project. One-time emissions from construction and vegetation removal were amortized over a 30-year period because no significance threshold has been adopted for such emissions. The Project emission reductions are results of Project's commitments and regulatory changes, which include the implementation of the Renewables Portfolio Standard (RPS) of 33 percent, the Pavley regulation and Advanced Clean Cars program mandating higher fuel efficiency standards for light-duty vehicles, and the Low Carbon Fuel Standard (LCFS).

The California Climate Action Registry (Climate Registry) General Reporting Protocol provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.[40] The General Reporting Protocol is based on the "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard" developed by the World Business Council for Sustainable Development and the World Resources Institute through "a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions."[41] Although no numerical thresholds of significance have been developed, and no specific protocols are available for land use projects, the General Reporting Protocol provides a basic framework for calculating and reporting GHG emissions from the Project. The information provided in this analysis is consistent with the General Reporting Protocol's reporting requirements.

The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. These categories consist of the following:

Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).

Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.

Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy (e.g., energy used to convey, treat, and distribute water and wastewater).[42]

The General Reporting Protocol provides a range of basic calculations methods. However, the General Reporting Protocol calculations are typically designed for existing buildings or facilities. These

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[40] *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009, www.sfenvironment.org/sites/default/files/fliers/files/ccar_grp_3-1_january2009_sfe-web.pdf, accessed March 2, 2015.*

[41] *Ibid.*

[42] *Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.*

retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG emissions footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.[43] For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research has noted that lead agencies "should make a good-faith effort, based on available information, to calculate, model, or estimate... GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities."[44] Therefore, direct and indirect emissions have been calculated for the Project.

GHG emissions were quantified from construction and operation of the Project using SCAQMD's California Emissions Estimator Model (CalEEMod). Operational emissions include both direct and indirect sources including mobile sources, water use, solid waste, area sources, natural gas, and electricity use emissions. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG emissions impacts from land use projects throughout California.[45]

Threshold of Significance

As discussed below, there are no adopted federal, State, or local thresholds of significance for judging a project's impact on GHG emissions and climate change. As a result, this analysis relies on primary direction from the CEQA Guidelines. OPR's amendments to the CEQA Guidelines for GHG emissions were adopted by the Resources Agency on December 30, 2009, indicating that a project could have a significant impact if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

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[43] *California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007, www.arb.ca.gov/regact/2007/ghg2007/isor.pdf, accessed March 2, 2015.*

[44] *OPR Technical Advisory, p. 5.*

[45] *See www.caleemod.com.*

2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG emissions.

Section 15064.4 of the CEQA Guidelines was adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. It urges the quantification of GHG emissions where possible and includes language necessary to avoid an implication that a "life-cycle" analysis is required. It also recommends considering other qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHG emissions). Further, it states that:

1. A lead agency should consider the following factors, among others, when assessing the significance of GHG emissions on the environment:

    a. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting;

    b. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

    c. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The current CEQA Guidelines do not establish a threshold of significance. Lead agencies are to establish thresholds in which a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7[c]). The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative. The CEQA Guidelines were amended in response to Senate Bill 97 to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.[46] Examples of such programs include a

[46] *Ibid.*

"water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."[47] Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project compiles with the California Cap-and-Trade Program and/or other regulatory schemes to reduce GHG emissions.[48]

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.[49]

To evaluate a project's potential GHG emissions under CEQA, a lead agency may adopt a significance criterion of whether the project will be consistent with statewide GHG emissions reduction goals, as set forth in the California Global Warming Solutions Act of 2006 (or "AB 32") and the California Air Resources Board 2008 Climate Change Scoping Plan ("Scoping Plan") that implements A.B. 32. (*Center for Biological Diversity v. Cal. Dept. of Fish and Game* [2015] 62 Cal.4th 204, 220; see also CEQA Guidelines § 15064.4.)

The statewide GHG emissions reduction goals include cutting GHG emissions by approximately 30 percent from the BAU emission levels projected for 2020. The Scoping Plan sets forth the BAU projection, which assumes no conservation or regulatory efforts beyond what was in place when the

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[47] *Ibid. (emphasis added).*

[48] *See, for example, San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance tor Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR—2030 (June 25, 2014), in which the SJVAPCD "determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA..." Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO$_2$e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project, SCH No. 2012041014 (October 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/ultramar_neg_dec.pdf?sfvrsn=2) ; SCAQMD, Final Negative Declaration tor Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project, SCH No. 2013091029 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf?sfvrsn=2); Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA, SCH No. 2014101040 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/exide-mnd_final.pdf?sfvrsn=2); and Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project, SCH No. 2014121014 (April 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2015/deir-breitburn-chapters-1-3.pdf?sfvrsn=2).*

[49] 14 CCR § 15064(h)(3).

forecast was made. A lead agency may use the BAU projection as the baseline to compare a project's expected GHG emissions rather than using a baseline of emissions in the existing physical environment. However, the lead agency must provide substantial evidence to show that a project's specific *project-level* reduction in GHG emissions as compared to the BAU projection will actually meet the *statewide* goals of GHG emissions reductions.

Thus, in the absence of any adopted, quantitative threshold, the Project would not have a significant effect on the environment if it is found to be consistent with the applicable regulatory plans and policies to reduce GHG emissions:

- Executive Orders S-3-05 and B-30-15
- AB 32 Scoping Plan
- SCAG's 2012-2035RTP/SCS
- City of Los Angeles Mobility 2035 Plan
- City of Los Angeles ClimateLA implementation plan
- City of Los Angeles Green Building Ordinance

Project Impacts

Construction of the Project would emit GHG emissions through the combustion of fossil fuels by heavy-duty construction equipment and through vehicle trips generated by construction workers and vendors traveling to and from the Project site and export haul trips. These impacts would vary day to day over the 7-month duration of construction activities. As illustrated on Table IV-10, construction emissions would generate up to approximately 8,809 CO_2e per day are anticipated. These emissions are further incorporated in the assessment of long-term operational impacts by amortizing them over a 30-year period, pursuant to guidance from the state and SCAQMD.

Table IV-10
Estimated Construction Emissions (Pounds Per Day)

Construction Year	CO_2	CH_4	N_2O	CO_2e
2017	8,776	2	0	8,809
Source: DKA Planning 2016, based on CalEEMod 2016.3.1. Refer to Appendix B.				

GHG emissions were calculated for the Project's long-term operations. Both one-time emissions and indirect emissions are expected to occur each year after build-out of the Project. One-time emissions from construction and vegetation removal were amortized over a 30-year period because no significance threshold has been adopted for such emissions. The Project emission reductions are results of Project's commitments and regulatory changes, which include the implementation of the Renewables Portfolio Standard (RPS) of 33 percent, the Pavley regulation and Advanced Clean Cars program mandating higher fuel efficiency standards for light-duty vehicles, and the Low Carbon Fuel Standard (LCFS).

This analysis compares the Project's GHG emissions to the emissions that would be generated by the Project in the absence of any GHG emissions reduction measures (i.e., the No Action Taken [NAT] Scenario. This approach mirrors the concepts used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32. This methodology is used to analyze consistency with applicable GHG emissions reduction plans and policies and demonstrate the efficacy of the measures contained therein, but it is not a threshold of significance.

The analysis in this section includes potential emissions under NAT scenarios and from the Project at build-out based on actions and mandates expected to be in force in 2020. Early-action measures identified in the *Climate Change Scoping Plan* that have not been approved were not credited in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at build-out.

The NAT scenario is used to establish a comparison with project-generated GHG emissions. The NAT scenario does not consider site-specific conditions, project design features, or prescribed mitigation measures. As an example, a NAT scenario would apply a base ITE trip-generation rate for the project and would not consider site-specific benefits resulting from the proposed mix of uses or close proximity to public transportation. The analysis below establishes NAT as complying with the minimum performance level required under Title 24. The NAT scenario also considers State mandates that were already in place when CARB prepared the *Supplemental FED* (e.g., Pavley I Standards, full implementation of California's Statewide Renewables Portfolio Standard beyond current levels of renewable energy, and the California Low Carbon Fuel Standard).

Emissions calculations for the Project include credits or reductions for the regulatory compliance measures and project design features set forth throughout this analysis, such as reductions in energy or water demand. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of Project generated trips as a result of project features would provide a proportional reduction in mobile source GHG emissions. This scenario conservatively did not include actions and mandates that are not already in place but are expected to be in force in 2020 (e.g., Pavley II), which could further reduce GHG emissions from use of light-duty vehicles by 2.5 percent.

As shown on Table IV-11, the emissions for the Project and its associated CARB 2020 NAT scenario are estimated to be 6,273 and 9,380 $MTCO_2e$ per year, respectively, which shows the Project would reduce emissions by 33 percent from the CARB 2020 NAT scenario. The estimated emissions would represent a net 5,434 metric ton increase in annual emissions when accounting for existing emissions from current development. Based on these results, the Project would be consistent with the reduction target as a numeric threshold (15.3 percent) set forth in the 2014 Revised AB 32 Scoping Plan.

The analysis in this report uses the 2014 Revised AB 32 Scoping Plan's statewide goals as one approach to evaluate the Project's impact (i.e., 15.3 percent reduction from NAT). The report's methodology is to compare the Project's emissions as proposed to the Project's emissions if the Project were built using a

NAT approach in terms of design, methodology, and technology. This means the Project's emissions were calculated as if it was constructed with project design features to reduce GHG emissions and with several regulatory measures adopted in furtherance of AB 32.

Table IV-11
Estimated Annual CO_2e GHG Emissions (Metric Tons per Year)

Scenario and Source	NAT Scenario*	As Proposed Scenario	Reduction from NAT Scenario	Change from NAT Scenario
Area Sources	<1	<1	-	0%
Energy Sources	3,319	1,925	-1,394	-42%
Mobile Sources	5,749	4,036	-1,713	-30%
Waste Sources	203	203	-	0%
Water Sources	96	96	-	0%
Construction	13	13	-	0%
Total Emissions	*9,380*	*6,273*	*-3,107*	*-30%*
Net Emissions	**-**	**5,434**	**N/A**	**N/A**

Daily construction emissions amortized over 30-year period pursuant to SCAQMD guidance. Annual construction emissions derived by taking total emissions over duration of activities and dividing by construction period.

** NAT scenario does not assume 30% reduction in in mobile source emissions from Pavley emission standards (19.8%), low carbon fuel standards (7.2%), vehicle efficiency measures 2.8%); does not assume 42% reduction in energy production emissions from the State's renewables portfolio standard (33%), natural gas extraction efficiency measures (1.6%), and natural gas transmission and distribution efficiency measures (7.4%).*

Source: DKA Planning, 2016. Refer to Appendix B.

The analysis in this report uses the 2014 Revised AB 32 Scoping Plan's statewide goals as one approach to evaluate the Project's impact (i.e., 15.3 percent reduction from NAT). The report's methodology is to compare the Project's emissions as proposed to the Project's emissions if the Project were built using a NAT approach in terms of design, methodology, and technology. This means the Project's emissions were calculated as if it was constructed with project design features to reduce GHG emissions and with several regulatory measures adopted in furtherance of AB 32.

While the AB 32 Scoping Plan's cumulative statewide objectives were not intended to serve as the basis for project-level assessments, this analysis finds that its NAT comparison based on the Scoping Plan is appropriate because the Project would contribute to statewide GHG emissions reduction goals. Specifically, the Project site's location in an existing urban setting provides opportunities to reduce transportation-related emissions. It would eliminate many vehicle trips because travel to and from the

Project site could be captured by public transit and bicycle and pedestrian travel instead. For instance, the proposed hotel would utilize a shuttle services to and from the nearby Metrolink and Orange Busway station located on Old Depot Drive. Finally, it would attract existing trips on the street network that would divert to the proposed uses.

As illustrated on Table IV-11, the Project's profile as an urban infill, mixed-use project with proximity to substantial public transit would produce substantial reductions over land uses that are located in a more typical community that has not coordinated its land use and transportation planning. The projected reductions in vehicle trips and VMT would range from 0-10 percent in reductions from internal capture of travel demand, 0-50 percent in reductions from pass-by trips and up to 5 percent reductions from the mode share from public transit. These would result in concomitant reductions in CO_2e emissions that far exceed the State's AB 32 Scoping Plan goal of a 4.5 percent reduction from the overall transportation sector by 2020. As such, this analysis concludes that the Project would meet and exceed its contribution to statewide climate change obligations that are under the control of local governments in their decisionmaking.

It should be noted that each source category of GHG emissions from the Project would be subject to a number of regulations that directly or indirectly reduce climate change-related emissions:

- Stationary and area sources. Emissions from small on-site sources are subject to specific emission reduction mandates and/or are included in the State's Cap and Trade program.
- Transportation. Both construction and operational activities from the Project site would generate transportation-related emissions from combustion of fossil fuels that are covered in the State's Cap and Trade program.
- Energy Use. Both construction and operational activities from the Project site would generate energy-related emissions that are covered by the State's renewable portfolio mandates, including SB 350, which requires that at least 50 percent of electricity generated and sold to retail customers from renwable energy sources by December 31, 2030.
- Building structures. Operational efficiences would be built into the project that reduce energy use and waste, as mandated by CALGreen building codes.
- Water and wastewater use. The Project would be subject to drought-related water conservation emergency orders and related State Water Quality Control Board restrictions.
- Major appliances. The Project would include major appliances that are regulated by California Energy Commission requirements for energy efficiency.
- Solid waste management. The Project would be subject to solid waste diversion policies administered by CalRecycle that reduce GHG emissions.

In addition to the GHG emission reductions described above, it is important to note that the CO_2 estimates from mobile sources (particularly CO_2, CH_4, and N_2O emissions) are likely much greater than the emissions that would actually occur. The methodology used assumes that all emissions sources are new sources and that emissions from these sources are 100 percent additive to existing conditions. This is a

standard approach taken for air quality analyses. In many cases, such an assumption is appropriate because it is impossible to determine whether emissions sources associated with a project move from outside the air basin and are in effect new emissions sources, or whether they are sources that were already in the air basin and just shifted to a new location. Because the effects of GHG emissions are global, a project that shifts the location of a GHG-emitting activity (e.g., where people live, where vehicles drive, or where companies conduct business) would result in no net change in global GHG emissions levels.

For example, if a substantial portion of California's population migrated from the South Coast Air Basin to the San Joaquin Valley Air Basin, this would likely decrease GHG emissions in the South Coast Air Basin and increase emissions in the San Joaquin Valley Air Basin, but little change in overall global GHG emissions. However, if a person moves from one location where the land use pattern requires auto use (e.g., commuting, shopping) to a new development that promotes shorter and fewer vehicle trips, more walking, and overall less energy usage, then it could be argued that the new development would result in a potential net reduction in global GHG emissions.

As described throughout this analysis, the Project contains numerous regulatory compliance measures and project design features that would reduce the Project's GHG emissions profile and would represent improvements vis-à-vis the NAT scenario. Thus, the Project's emissions reductions as compared to the NAT Scenario demonstrate consistency with GHG Reduction Plans, Executive Orders S-3-05 and B-30-15, SCAG's Sustainable Communities Strategy, and the City of Los Angeles' Green Building Ordinance.

As a result of this and the analysis of net emissions, the Project's contribution to global climate change is not "cumulatively considerable" and is considered less than significant.

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

Less Than Significant Impact. The Project would contribute to cumulative GHG emissions over time in the absence of policy intervention. As noted earlier, the Project would be consistent with a number of relevant plans and policies that govern climate change.

Consistency with Executive Orders S-03-05 and B-30-15.

The Project is consistent with the State's Executive Orders S-3-05 and B-30-15, which are orders from the State's Executive Branch for the purpose of reducing GHG emissions. These strategies call for developing more efficient land-use patterns to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. The Project includes elements of smart land use as it is a development located in an urban infill area well-served by transportation infrastructure that includes robust public transit provided by Metro.

Although the Project's emissions level in 2050 cannot be reliably quantified, statewide efforts are underway to facilitate the State's achievement of that goal and it is reasonable to expect the Project's emissions profile to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the Project's emissions total at build-out presented in this analysis represents the maximum emissions inventory for the Project as California's emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project is consistent with the Executive Order's horizon-year goal.

Many of the emission reduction strategies recommended by CARB would serve to reduce the Project's post-2020 emissions level to the extent applicable by law and help lay the foundation "...for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," as called for in CARB's First Update to the AB 32 Scoping Plan.[50,51]

As such, the Project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets and Executive Order S-3-05 and B-30-15.

Consistency with the AB 32 Scoping Plan

The AB 32 Scoping Plan provides the basis for policies that will reduce cumulative GHG emissions within California to 1990 levels by 2020. Table IV-12 evaluates the Project's consistency with the AB 32 Scoping Plan to determine whether the Project would result in adverse cumulative impacts to global climate change. The Project is consistent with the AB 32 Scoping Plan's focus on emission reductions from several key sectors.

- **Energy Sector**: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the Project's emissions level.[52] Additionally, further additions to California's renewable resource portfolio would favorably influence the Project's emissions level.[53]

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[50] *CARB, First Update, p. 4, May 2014. See also id. at pp. 32–33 [recent studies show that achieving the 2050 goal will require that the "electricity sector will have to be essentially zero carbon; and that electricity or hydrogen will have to power much of the transportation sector, including almost all passenger vehicles."]*

[51] *CARB, First Update, Table 6: Summary of Recommended Actions by Sector, pp. 94-99, May 2014.*

[52] *CARB, First Update, pp. 37-39, 85, May 2014.*

[53] *CARB, First Update, pp. 40-41, May 2014.*

- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all would serve to reduce the Project's emissions level.[54]

- **Water Sector**: The Project's emissions level would be reduced as a result of further desired enhancements to water conservation technologies.[55]

- **Waste Management Sector**: Plans to further improve recycling, reuse and reduction of solid waste would beneficially reduce the Project's emissions level.[56]

Based on this evaluation, this analysis finds the Project would be consistent with all feasible and applicable strategies recommended in the AB 32 Scoping Plan.

Table IV-12
Project Consistency With AB 32 Scoping Plan Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
California Cap-and-Trade Program. Implement a broad-based California cap-and-trade program to provide a firm limit on emissions.	Project Not in Conflict with Strategy. The statewide program is not relevant to the Project.
California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted Pavley standards and planned second phase of the system. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Project Not in Conflict with Strategy. The development of standards is not relevant to the Project.
Energy Efficiency. Maximize energy efficiency building and appliance standards and pursue additional efficiency efforts including new technologies, and new policy and mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The Project would be designed and constructed to meet Cal Green building standards by including several measures designed to reduce energy consumption.
Renewables Portfolio Standard. Achieve 33 percent renewable energy mix statewide.	Consistent. The Project would utilize energy from the Los Angeles Department of Water and Power, which has goals to diversify its portfolio of energy sources to increase the use of renewable energy.
Low-Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	Project Not in Conflict with Strategy. The statewide program is not relevant to the Project.

[54] *CARB, First Update, pp. 55-56, May 2014.*

[55] *CARB, First Update, p. 65, May 2014.*

[56] *CARB, First Update, p. 69, May 2014.*

Table IV-12
Project Consistency With AB 32 Scoping Plan Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
Regional Transportation-Related Greenhouse Gases. Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	Project Not in Conflict with Strategy. The development of regional planning goals is not relevant to the Project. The project's infill location near several bus routes (i.e., Metro, AVTA, LADOT) make it consistent with the smart growth objectives of the region's Sustainable Communities Strategy (SCS).
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	Project Not in Conflict with Strategy. State agencies are responsible for implementing efficiency measures.
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Project Not in Conflict with Strategy. State agencies are responsible for implementing regulations and promoting efficiency in goods movement.
Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	Project Not in Conflict with Strategy. In accordance with the City's Green Building Code, a minimum of 250 square feet of contiguous unobstructed roof area would be provided for the installation of future photovoltaic or other electrical solar panels. The location shall be suitable for installing future solar panels as determined by the designer. Also, an electrical conduit will be provided from the electrical service equipment to an accessible location in the attic or other location suitable for future connection to a solar system. The conduit shall be adequately sized by the designer but shall not be less than one inch. The conduit shall be labeled as per the Los Angeles Fire Department requirements. The electrical panel shall be sized to accommodate the installation of a future electrical solar system. Additionally, the Project would use energy from LADWP, which obtains a portion of its power through solar sources.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	Project Not in Conflict with Strategy. State agencies are responsible for implementing efficiency measures.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions. Reduce greenhouse gas emissions from fugitive	Project Not in Conflict with Strategy. This measure addresses industrial facilities.

Table IV-12
Project Consistency With AB 32 Scoping Plan Greenhouse Gas Emission Reduction Strategies

Strategy	Project Consistency
emissions from oil and gas extraction and gas transmission.	
High Speed Rail. Support implementation of a high speed rail system.	Project Not in Conflict with Strategy. This calls for the California High Speed Rail Authority and stakeholders to develop a statewide rail transportation system.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The Project is designed to meet Cal Green building standards and would include several measures designed to reduce energy consumption.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	Project Not in Conflict with Strategy. State agencies are responsible for implementing these measures.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials and mandate commercial recycling. Move toward zero waste.	Project Not in Conflict with Strategy. As discussed in response to Checklist Question 17(f), Project impacts related to solid waste would be less than significant.
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	Project Not in Conflict with Strategy. Resource Agency departments are responsible for implementing this measure.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The Project would use water-efficient landscaping.
Agriculture. In the near-term, encourage investment in manure digester and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	Project Not in Conflict with Strategy. The Project would not include agricultural facilities.
Source: DKA Planning, 2016.	

Consistency with SCAG's 2012-2035 RTP/SCS

At the regional level, 2012–2035 RTP/SCS is an applicable plan that defines strategies for reducing GHGs. In order to assess the Project's potential to conflict with 2012–2035 RTP/SCS, this section analyzes the Project's land use profiled for consistency with those in the Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Sustainable Communities Strategy, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

The Project is an infill development combining hotel and commercial land uses that is also consistent with the 2012 RTP/SCS and its focus on integrated land use planning. The Project specifically implements the Plan's "Complete Communities" growth strategy. Further, the integration of land uses on the site would produce substantial reductions in auto mode share to and from the site that would help the

region accommodate growth and promote public transit ridership that minimizes GHG emission increases and reduces per capita emissions consistent with the RTP/SCS.

Table IV-13 demonstrates the Project's consistency with the Actions and Strategies set forth in the 2012–2035 RTP/SCS. The Project would also be consistent with the applicable goals and principles set forth in the 2012–2035 RTP/SCS and the Compass Growth Vision Report. Therefore, the Project would be consistent with the GHG emissions reduction related actions and strategies contained in the 2012–2035 RTP/SCS.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
Land Use Actions and Strategies		
Coordinate ongoing visioning efforts to build consensus on growth issues among local governments and stakeholders.	SCAG	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. Nonetheless, the City, which is the lead agency for the Project, regularly coordinates with SCAG on regional growth issues.
Provide incentives and technical assistance to local governments to encourage projects and programs that balance the needs of the region.	SCAG	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. Nonetheless, the City, which is the lead agency for the Project, regularly coordinates with SCAG on its advancement of projects and programs that meet regional needs. Furthermore, the Project would support this measure by providing needed employment opportunities, and supportive uses and amenities.
Collaborate with local jurisdictions and agencies to acquire a regional fair share housing allocation that reflects existing and future needs.	SCAG Local Jurisdictions HCD	Project Not in Conflict with Strategy. This measure calls on local jurisdictions to use the regional planning process to accommodate and plan for future housing needs and is not applicable at a project level.
Expand Compass Blueprint program to support member cities in the development of bicycle, pedestrian, Safe Routes to Schools, Safe Routes to Transit, and ADA Transition plans.	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. The Project would not impair SCAG or the State's expansion of the Compass Blueprint program. The network of streets surrounding the Project Site provide sidewalks connected to transit stops to promote alternative transportation.
Continue to support, through Compass Blueprint, local	SCAG State Local	Neutral. This measure focuses on development in corridors not served by high-quality transit by promoting balanced development. The Project is in an area well-

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
jurisdictions and sub-regional COGs adopting neighborhood-oriented development, suburban villages, and revitalized main streets as livability strategies in areas not served by high-quality transit.	Jurisdictions COGs	served by public transit.
Encourage the use of range-limited battery electric and other alternative fueled vehicles through policies and programs, such as, but not limited to, neighborhood oriented development, complete streets, and Electric (and other alternative fuel) Vehicle Supply Equipment in public parking lots.	Local Jurisdictions COGs SCAG CTCs	Consistent. While the use of alternatively-fueled vehicles by the Project's future occupants is market driven and beyond the direct control or influence of the Project Applicant, the Project would not impair the City's or SCAG's ability to encourage the use of alternatively-fueled vehicles through various policies and programs.
Continue to support, through Compass Blueprint, planning for new mobility modes such as range-limited Neighborhood Electric Vehicles (NEVs) and other alternative fueled vehicles.	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. However, as noted above, the Project would not impair any jurisdiction's ability to encourage the use of alternative-fueled vehicles.
Collaborate with the region's public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.	SCAG State Local Jurisdictions	Consistent. The Project would not impair the City's, SCAG's, or the State's ability to collaborate with the region's public health professionals regarding the integration of public health issues in regional planning. The Project would also incorporate measures to reduce air emissions and GHG emissions, minimize hazards, and ensure water quality.
Support projects, programs, and policies that support active and healthy community environments that encourage safe	Local Jurisdictions SCAG	Consistent. The Project would encourage healthy lifestyles through the provision of bicycle parking spaces.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
walking, bicycling, and physical activity by children, including, but not limited to development of complete streets, school siting policies, joint use agreements, and bicycle and pedestrian safety education.		
Seek partnerships with state, regional, and local agencies to acquire funding sources for innovative planning projects.	Local Jurisdictions SCAG State	Consistent. The Project would not impair the City's, SCAG's or the State's ability to seek partnerships in furtherance of funding acquisition. Additionally, the Project would support this measure by providing needed employment opportunities that would serve the community at large.
Update local zoning codes, General Plans, and other regulatory policies to accelerate adoption of land use strategies included in the 2012–2035 RTP/SCS Plan Alternative, or that have been formally adopted by any subregional COG that is consistent with regional goals.	Local Jurisdictions	Consistent. While not necessarily applicable on a project-specific basis, the Project would support this action/strategy via consistency with SCAG's 2012–2035 RTP/SCS Plan.
Update local zoning codes, General Plans, and other regulatory policies to promote a more balanced mix of residential, commercial, industrial, recreational and institutional uses located to provide options and to contribute to the resiliency and vitality of neighborhoods and districts.	Local Jurisdictions	Consistent. While not necessarily applicable on a project-specific basis, the Project would support this action/strategy by creating a mixed-use development comprised of complementary uses that offer employment, shopping, and other community-serving activities and opportunities.
Support projects, programs, policies and regulations that encourage the development of complete	Local Jurisdictions SCAG	Consistent. The Project would create a mixed-use development consisting of commercial uses in close proximity to jobs, destinations, and other neighborhood services.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
communities, which includes a diversity of housing choices and educational opportunities, jobs for a variety of skills and education, recreation and culture, and a full-range of shopping, entertainment and services all within a relatively short distance.		
Pursue joint development opportunities to encourage the development of housing and mixed-use projects around existing and planned rail stations or along high-frequency bus corridors, in transit-oriented development areas, and in neighborhood-serving commercial areas.	Local Jurisdictions CTCs	Consistent. The Project would accommodate regional growth projected by SCAG in the Los Angeles Planning Area within an infill site that is adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers in furtherance of SB 375 policies.
Working with local jurisdictions, identify resources that can be used for employing strategies to maintain and assist in the development of affordable housing.	SCAG Local Jurisdictions	Project Not in Conflict with Strategy. The Project does not include residential housing.
Consider developing healthy community or active design guidelines that promote physical activity and improved health.	Local Jurisdictions	Consistent. As discussed above, the Project would encourage healthy lifestyles through the provision of bicycle parking.
Support projects, programs, policies, and regulations to protect resource areas, such as natural habitats and farmland, from future development.	Local Jurisdictions SCAG	Project Not in Conflict with Strategy. The Project neither protects nor threatens resource areas from urbanization.
Create incentives for local jurisdictions and agencies	State SCAG	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
that support land use policies and housing options that achieve the goals of SB 375.		implementation of this action/strategy are SCAG and the State of California. In any event, the Project would be consistent with the overarching goal of SB 375 to reduce vehicle miles traveled and the corresponding emission of GHGs.
Continue partnership with regional agencies to increase availability of state funding for integrated land use and transportation projects in the region.	State SCAG	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. The Project would not impair the ability of SCAG and the State to increase the availability of funding for certain types of projects.
Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources, including increasing and preserving park space, specifically in park-poor communities.	Local Jurisdictions SCAG	Consistent. The Project would not impair the ability of the City and SCAG to engage in strategic planning processes to address recreational/park shortages in existing communities. As previously discussed, the Project is a mixed-use community comprised of complementary uses that offer employment, shopping, and other community-serving activities and opportunities.
Identify and map regional priority conservation areas for potential inclusion in future plans.	SCAG	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG. The Project would not impair SCAG's ability to implement this action/strategy.
Engage with various partners, including CTCs and local agencies, to determine priority conservation areas and develop an implementable plan.	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to engage with various partners on issues pertaining to conservation areas.
Develop regional mitigation policies or approaches for the 2016 RTP.	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to develop regional mitigation policies or approaches for the future 2016 RTP.
Transportation Network Actions and Strategies		
Perform and support studies with the goal of	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
identifying innovative transportation strategies that enhance mobility and air quality, and determine practical steps to pursue such strategies, while engaging local communities in planning efforts.		implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to perform and support various studies. Furthermore, by combining proposed hotel and commercial uses, the Project would reduce vehicle trips and thus vehicle miles traveled, thereby contributing to a reduction in air pollutant emissions.
Cooperate with stakeholders, particularly county transportation commissions and Caltrans, to identify new funding sources and/or increased funding levels for the preservation and maintenance of the existing transportation network.	SCAG CTCs Local Jurisdictions	Consistent. While not necessarily applicable on a project-specific basis, the Project would support this action/strategy improving local access, with appropriate design considerations to ensure travel safety and reliability.
Expand the use of transit modes in our subregions such as BRT, rail, limited-stop service, and point-to-point express services utilizing the HOV and HOT lane networks.	SCAG CTCs Local Jurisdictions	Consistent. The Project would not impair the ability of SCAG, the CTCs, or the City to expand and extend the use of other transit modes to the Project Site.
Encourage transit providers to increase frequency and span of service in TOD/HQTA and along targeted corridors where cost-effective and where there is latent demand for transit usage.	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. The Project would not impair the ability of SCAG and CTCs to encourage transit provided to increase the frequency and span of service.
Encourage regional and local transit providers to develop rail interface services at Metrolink, Amtrak, and high-speed rail stations.	SCAG CTCs Local Jurisdictions	Consistent. While this action/strategy is not necessarily applicable on a project-specific basis, the Project would not impair the ability of SCAG, CTCs, or the City to encourage rail interface services.
Expand the Toolbox Tuesdays program to include bicycle safety	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
design, pedestrian safety design, ADA design, training on how to use available resources that expand understanding of where collisions are happening, and information on available grant opportunities to improve bicycle and pedestrian safety.		State of California. However, the Project would neither support nor adversely impact the expansion of Toolbox Tuesday opportunities.
Prioritize transportation investments to support compact infill development that includes a mix of land uses, housing options, and open/park space, where appropriate, to maximize the benefits for existing communities, especially vulnerable populations, and to minimize any negative impacts.	SCAG CTCs Local Jurisdictions	Consistent. The Project represents infill development offering a mixed-use development consisting of commercial uses in close proximity to jobs, destinations, and other neighborhood services.
Explore and implement innovative strategies and projects that enhance mobility and air quality, including those that increase the walkability of communities and accessibility to transit via non-auto modes, including walking, bicycling, and neighborhood electric vehicles (NEVs) or other alternative fueled vehicles.	SCAG CTCs Local Jurisdictions	Consistent. The Project is a bicycle-friendly, mixed-use development and would provide a distribution of various uses across three properties that would encourage employees to walk to nearby community-serving businesses. The Project would also provide bicycle parking spaces in accordance with LAMC requirements for Project visitors. By combining these uses, the Project would serve to reduce vehicle trips and thus vehicle miles traveled, thereby contributing to a reduction in air pollutant emissions.
Collaborate with local jurisdictions to plan and develop residential and employment development around current and planned transit stations and neighborhood commercial	SCAG CTCs Local Jurisdictions	Consistent. The Project would locate jobs within walking distance of existing and proposed neighborhood commercial centers, both on- and off-site, thus reducing the number and length of vehicle trips.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
centers.		
Collaborate with local jurisdictions to provide a network of local community circulators that serve new TOD, HQTAs, and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.	SCAG CTCs Local Jurisdictions	Consistent. As discussed above, the jobs created on-site would be located within walking distance of existing and proposed neighborhood commercial centers, both on- and off-site.
Similar to SCAG's partnership with the City of Los Angeles and LACMTA, offer to all County Transportation Commissions a mutually funded, joint first mile/last mile study for each region.	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. In any event, the Project would not impair SCAG's or the CTCs' ability to offer the mutually-funded study.
Develop first-mile/last-mile strategies on a local level to provide an incentive for making trips by transit, bicycling, walking, or neighborhood electric vehicle or other ZEV options.	CTCs Local Jurisdictions	Consistent. The Project would not impair the CTCs' or the City's ability to develop first-mile/last-mile strategies. In support of this action/strategy, the future jobs on-site would be located within walking distance of existing and proposed neighborhood commercial centers.
Encourage transit fare discounts and local vendor product and service discounts for residents and employees of TOD/HQTAs or for a jurisdiction's local residents in general who have fare media.	Local Jurisdictions	Consistent. The Project would not impair the City's ability to encourage transit fare and other discounts.
Work with transit properties and local jurisdictions to identify and remove barriers to maintaining on-time performance.	SCAG CTCs Local Jurisdictions	Consistent. The Project would not impair the SCAG's, CTCs', or the City's ability to work with transit properties to remove barriers to on-time performance.
Develop policies and prioritize funding for	State	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
strategies and projects that enhance mobility and air quality.		implementation of this action/strategy is the State of California.
Work with the California High-Speed Rail Authority and local jurisdictions to plan and develop optimal levels of retail, residential, and employment development that fully take advantage of new travel markets and rail travelers.	State	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is the State of California.
Work with state lenders to provide funding for increased transit service in TOD/HQTA in support of reaching SB 375 goals.	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Continue to work with neighboring Metropolitan Planning Organizations to provide alternative modes for interregional travel, including Amtrak and other passenger rail services and an enhanced bikeway network, such as on river trails.	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Encourage the development of new, short haul, cost-effective transit services such as DASH and demand responsive transit (DRT) in order to both serve and encourage development of compact neighborhood centers.	CTCs Municipal Transit Operators	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are CTCs and Municipal Transit Operators.
Work with the state legislature to seek funding for Complete Streets planning and implementation in support of reaching SB 375 goals.	SCAG State	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California.
Continue to support the	SCAG	Project Not in Conflict with Strategy. The responsible

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
California Interregional Blueprint as a plan that links statewide transportation goals and regional transportation and land use goals to produce a unified transportation strategy.	State	parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and the State of California. Nonetheless, the Project would integrate land use and transportation concerns via development of a mixed-use community with mutually supportive uses, public services, and amenities, in close proximity to the regional roadway network.
Transportation Demand Management (TDM) Actions and Strategies		
Examine major projects and strategies that reduce congestion and emissions and optimize the productivity and overall performance of the transportation system.	SCAG	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG.
Develop comprehensive regional active transportation network along with supportive tools and resources that can help jurisdictions plan and prioritize new active transportation projects in their cities.	SCAG CTCs Local Jurisdictions	Consistent. The Project would promote the development of a comprehensive regional active transportation network by locating more potential bicycle and pedestrians that would travel using non-motorized transportation modes.
Encourage the implementation of a Complete Streets policy that meets the needs of all users of the streets, roads and highways—including bicyclists, children, persons with disabilities, motorists, neighborhood electric vehicle (NEVs) users, movers of commercial goods, pedestrians, users of public transportation and seniors—for safe and convenient travel in a manner that is suitable to the suburban and urban contexts within the region.	Local Jurisdictions COGs SCAG CTCs	Project Not in Conflict with Strategy. While the City would be the implementing agency for any Complete Streets project, the Project would neither benefit nor adversely affect the implementation of infrastructure that benefits alternative transportation modes.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	SCAG Local Jurisdictions	Consistent. Future tenants of commercial spaces could be encouraged to utilize alternative transportation modes.
Develop infrastructure plans and educational programs to promote active transportation options and other alternative fueled vehicles, such as neighborhood electric vehicles (NEVs), and consider collaboration with local public health departments, walking biking coalitions, and/or Safe Routes to School initiatives, which may already have components of such educational programs in place.	Local Jurisdictions	Project Not in Conflict with Strategy. While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of infrastructure and education programs that promote alternative fueled vehicles or other initiatives that reduce congestion and air pollution.
Encourage the development of telecommuting programs by employers through review and revision of policies that may discourage alternative work options.	Local Jurisdictions CTCs	Project Not in Conflict with Strategy. While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of telecommuting programs by employers that reduce congestion and air pollution.
Emphasize active transportation and alternative fueled vehicle projects as part of complying with the Complete Streets Act (AB 1358).	State SCAG Local Jurisdictions	Project Not in Conflict with Strategy. While local governments are responsible for implementing this, the Project would neither benefit nor adversely impact the City's development of active transportation and alternative fuel vehicle programs that promote alternative fueled vehicles or other initiatives that reduce congestion and air pollution.
Transportation System Management (TSM) Actions and Strategies		
Work with relevant state and local transportation authorities to increase the	SCAG Local Jurisdictions	Consistent. The Project would not impair the ability of SCAG, the City, or the State to work with transportation authorities to increase the efficiency of the existing

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
efficiency of the existing transportation system.	State	transportation system. All improvements would be constructed in accordance with LADOT requirements, as appropriate. Further, the Project would mitigate any significant impacts to local and regional roadways to the extent feasible, as required by CEQA.
Collaborate with local jurisdictions and sub-regional COGs to develop regional policies regarding TSM.	SCAG COGs Local Jurisdictions	Consistent. The Project would not impair the ability of SCAG, the COGs, or the City to collaborate on the development of regional TSM policies. All Project transportation-related improvements would be developed in consultation with LADOT and/or transit service providers, as appropriate, and constructed in compliance with their respective standards.
Contribute to and utilize regional data sources to ensure efficient integration of the transportation system.	SCAG CTCs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG and CTCs. However, the Project traffic analysis is based on a traffic model developed by LADOT as the primary tool for forecasting traffic volumes within the City of Los Angeles. In addition, SCAG's regional data, including population, housing, and employment forecasts are used where appropriate throughout this analysis.
Provide training opportunities for local jurisdictions on TSM strategies, such as Intelligent Transportation Systems (ITS).	SCAG Local Jurisdictions	Consistent. While not necessarily applicable on a project-specific basis, the Project would not impair the ability of SCAG or the City to provide TSM strategy training. However, the Project would support transportation system management strategies via the provision of appropriate roadway improvements that meet LADOT requirements, as appropriate.
Collaborate with local jurisdictions and sub-regional COGs to continually update the ITS inventory.	SCAG COGS Local Jurisdictions	Consistent. The Project would not impair the ability of SCAG, the COGs, or the City to collaborate on updates to the ITS inventory. See the discussion above regarding the Project's support of transportation system management strategies.
Collaborate with CTCs to regularly update the county and regional ITS architecture.	SCAG CTCs Local Jurisdictions	Consistent. The Project does not impair the ability of SCAG, the CTCs, or the City to collaborate on updates to the ITS architecture.
Collaborate with the state and federal Government and sub-regional COGs to examine potential innovative TDM/TSM	SCAG State COGs	Project Not in Conflict with Strategy. The responsible parties identified in the 2012–2035 RTP/SCS for implementation of this action/strategy are SCAG, the State of California, and the COGs.

Table IV-13
Project Consistency With SCAG 2012-2035 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
strategies.		
Clean Vehicle Technology Actions and Strategies		
Develop a Regional PEV Readiness Plan with a focus on charge port infrastructure plans to support and promote the introduction of electric and other alternative fuel vehicles in Southern California.	SCAG	Project Not in Conflict with Strategy. The responsible party identified in the 2012–2035 RTP/SCS for implementation of this action/strategy is SCAG.
Support sub-regional strategies to develop infrastructure and supportive land uses to accelerate fleet conversion to electric or other near zero-emission technologies. The activities committed in the two subregions are put forward as best practices that others can adopt in the future.	SCAG Local Jurisdictions	Consistent. While the acceleration of fleet conversion by the Project's future residents and occupants is market driven and beyond the direct control or influence of the Project applicant, the Project would not impair the City's or SCAG's ability to support sub-regional strategies in furtherance of that conversion.

SCAG = Southern California Association of Governments
HCD = California Department of Housing and Community Development
COG = sub-regional council of governments
CTCs = county transportation commissions
TOD = transit-oriented development
HQTA = High Quality Transit Area
Source: SCAG 2012–2035 RTP/SCS, Chapter 4: Sustainable Communities Strategy, Tables 4.3 through 4.7; April 2012.

Consistency with SCAG's 2016-2040 RTP/SCS

At the regional level, the 2016-2040 RTP/SCS represent the region's Climate Action Plan that defines strategies for reducing GHG emissions. In order to assess the Project's consistency with the RTP/SCS, this section assesses the Project's land use profile for consistency with those in the Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Sustainable Communities Strategy, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals.

The Project is an infill development that is also consistent with the 2016-2040 RTP/SCS and its focus on integrated land use planning. The integration of hotel and other commercial land uses on the site would produce substantial reductions in auto mode share to and from the Project site that would help the region accommodate growth and promote public transit ridership that minimizes GHG emissions increases and reduces per capita emissions consistent with the RTP/SCS.

Table IV-14 demonstrates the Project's consistency with the Actions and Strategies set forth in the 2016-2040 RTP/SCS. The Project would also be consistent with the applicable goals and principles set forth in the 2016-2040 RTP/SCS and the Compass Growth Vision Report. Therefore, the Project would be consistent with the GHG emissions reduction related actions and strategies contained in the 2016-2040 RTP/SCS.

Table IV-14
Project Consistency with SCAG's 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
Land Use Strategies		
Reflect the changing population and demands, including combating gentrification and displacement, by increasing housing supply at a variety of affordability levels.	Local jurisdictions	Project Not in Conflict with Strategy. The underlying zoning and land use designation for the Project site do not plan for development of residential land uses at the site.
Focus new growth around transit.	Local Jurisdictions	Consistent. The Project is an infill development that would be consistent with the 2016-2040 RTP/SCS focus on growing near transit facilities.
Plan for growth around livable corridors, including growth on the Livable Corridors network.	SCAG, Local Jurisdictions	Consistent. The Project is an infill development that would be consistent with the 2016-2040 RTP/SCS focus on focusing growth along the 2,980 miles of Livable Corridors in the region.
Provide more options for short trips through Neighborhood Mobility Areas and Complete Communities.	SCAG, Local Jurisdictions	Consistent. The Project would help further jobs/housing balance objectives that can improve the use of Neighborhood Electric Vehicles for short trips. The project is also generally consistent with the Complete Communities initiative that focuses on creation of mixed-use districts in growth areas.
Support local sustainability planning, including developing sustainable planning and design policies, sustainable zoning codes, and Climate Action Plans.	Local Jurisdictions	Project Not in Conflict with Strategy. While this strategy calls on local governments to adopt General Plan updates, zoning codes, and Climate Action Plans to further sustainable communities, the Project would not interfere with such policymaking and would be consistent with those policy objectives.
Protect natural and farm	SCAG	Consistent. The Project is an infill development that

Table IV-14
Project Consistency with SCAG's 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
lands, including developing conservation strategies.	Local Jurisdictions	would help reduce demand for growth in urbanizing areas that threaten greenfields and open spaces.
Transportation Strategies		
Preserve our existing transportation system.	SCAG County Transportation Commissions Local Jurisdictions	Project Not in Conflict with Strategy. While this strategy calls on investing in the maintenance of our existing transportation system, the Project would not interfere with such policymaking.
Manage congestion through programs like the Congestion Management Program, Transportation Demand Management, and Transportation Systems Management strategies.	County Transportation Commissions Local Jurisdictions	Consistent. The Project is an infill development that would minimize congestion impacts on the region because of its proximity to public transit, Complete Communities, and general density of population and jobs.
Promote safety and security in the transportation system.	SCAG County Transportation Commissions Local Jurisdictions	Project Not in Conflict with Strategy. While this strategy aims to improve the safety of the transportation system and protect users from security threats, the Project would not interfere with such policymaking.
Complete our transit, passenger rail, active transportation, highways and arterials, regional express lanes, goods movement, and airport ground transportation systems.	SCAG County Transportation Commissions Local Jurisdictions	Project Not in Conflict with Strategy. This strategy calls for transportation planning partners to implement major capital and operational projects that are designed to address regional growth. The Project would not interfere with this larger goal of investing in the transportation system.
Technological Innovation and 21st Century Transportation		
Promote zero-emissions vehicles.	SCAG Local Jurisdictions	Consistent. While this action/strategy is not necessarily applicable on a project-specific basis, the Project would include pre-wiring for electric vehicle charging infrastructure.
Promote neighborhood electric vehicles.	SCAG Local Jurisdictions	Consistent. While this action/strategy is not necessarily applicable on a project-specific basis, the Project would include pre-wiring for electric vehicle charging infrastructure.
Implement shared mobility programs.	SCAG Local Jurisdictions	Project Not in Conflict with Strategy. While this strategy is designed to integrate new technologies for last-mile and alternative transportation programs, the

Table IV-14
Project Consistency with SCAG's 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis
		Project would not interfere with these emerging programs.

Source: Southern California Association of Governments; 2016–2040 RTP/SCS, Chapter 5: The Road to Greater Mobility and Sustainable Growth; April 2016.

Consistency with the City of Los Angeles Mobility 2035 Plan

While the Mobility 2035 Plan focuses on developing a multi-modal transportation system, its key policy initiatives include considering the strong link between land use and transportation and targeting GHG emissions through a more sustainable transportation system. The Project is fully consistent with these general objectives, including the most relevant strategy, Program No. D7, which calls for the development of GHG emissions tracking program that would quantify reductions in GHG emissions from reductions in VMT.

Consistency with the City of Los Angeles ClimateLA Plan

Implementation of the Project is consistent with the "ClimateLA" plan's goal of reducing or recycling 70 percent of trash (including construction waste) by 2015. The Project would promote this goal by complying with waste reduction measures mandated by CALGreen and City's Green Building Code, as well as solid waste diversion policies administered by CalRecycle that in turn reduce GHG emissions.

Long-term operations of the Project is also consistent with the "ClimateLA" focus on transportation, energy, water use, land use, waste, open space and greening, and economic factors to achieve emissions reductions.

With regard to transportation, the Project is consistent with the Plan's focus on reducing emissions from private vehicle use. Specifically, the site's infill location with immediate access to significant public transit, pedestrian, and bicycle facilities results in a transit-oriented development that would reduce auto dependence. Further, the mixed-use nature of the Project is consistent with the Plan's land use policies that promote high density near transportation, transit-oriented development, and making underutilized land available for housing and mixed-use development, especially when near transit.

To reduce emissions from energy usage, the Project would be consistent with "ClimateLA" and its focus on increasing the amount of renewable energy provided by the Los Angeles Department of Water and Power; presenting a comprehensive set of green building policies to guide and support private sector development; and helping citizens to use less energy. Both construction and operational activities from the Project site would generate energy-related emissions that are reduced by the State's renewable

portfolio mandates, including SB 350, which requires that at least 50 percent of electricity generated and sold to retail customers come from renewable energy sources by December 31, 2030.

With regard to water, the Project would be consistent with reducing water from growth through water conservation and recycling; reducing per capita water consumption by 20 percent; and implementing the City's water and wastewater integrated resources plan that would increase conservation, and maximize the capture and reuse of storm water. Specifically, the Project would be subject to drought-related water conservation emergency orders and related State Water Quality Control Board restrictions, as well as CALGreen and City Green Building Code that call for water-conserving fixtures and processes. These elements of the Project would be consistent with goals set forth in the "ClimateLA" plan.

With regard to waste, the Project would be consistent with the "ClimateLA" goal of reducing or recycling 70 percent of trash by 2015. Operational efficiences would be built into the Project that reduce energy use and waste, as mandated by the City's Green Building Code and CALGreen building code. With regard to ongoing operations, the Project would be subject to solid waste diversion policies administered by CalRecycle that reduce GHG emissions.

With regard to open space and greening, the Project would not interfere with "ClimateLA" and its focus on creating 35 new parks; revitalizing the Los Angeles River to create open space opportunities; planting one million trees throughout the City; identifying opportunities to "daylight" streams; identifying promising locations for stormwater infiltration to recharge groundwater aquifers; and collaborating with schools to create more parks in neighborhoods.

Consistency with the City of Los Angeles Green Building Ordinance

The Los Angeles Green Building Ordinance requires that all Projects filed on or after January 1, 2014 comply with the Los Angeles Green Building Code as amended to comply with the 2013 CALGreen Code. Mandatory measures under the Green Building Ordinance that would help reduce GHG emissions include short and long term bicycle parking measures; designated parking measure; and electric vehicle supply wiring. The Project would comply with these mandatory measures, as the Project would provide on-site bicycle parking spaces. Furthermore, the Green Building Ordinance includes measures that would increase energy efficiency on the Project Site, including installing Energy Star rated appliances and installation of water-conserving fixtures. Therefore, the Project is consistent with the Los Angeles Green Building Ordinance.

The Project would comply with the City of Los Angeles' Green Building Ordinance standards that compel LEED certification, reduce emissions beyond a NAT scenario, and are consistent with the AB 32 Scoping Plan's recommendation for communities to adopt building codes that go beyond the State's codes. Under the City's Los Angeles Green Building Code, the Project must incorporate several measures and design elements that reduce the carbon footprint of the development:

The Project would include design, construction, maintenance, and operation at the Leadership in Energy & Environmental Design (LEED) certified level. Projects that are LEED certified generally exceed Title 24 (2013) standards by at least 10 percent.[57] As such, it would incorporate several design elements and programs that would reduce the carbon footprint of the development, including:

1. **GHG Emissions Associated with Planning and Design.** The Project must have measures to reduce storm water pollution, provide designated parking for bicycles and low-emission vehicles, have wiring for electric vehicles, reduce light pollution, and design grading and paving to keep surface water from entering buildings. This would include:

    - Reduced parking based on compliance with the City's bicycle parking ordinance.

    - Access to several public transportation lines. The Project would be located in an urban area with significant infrastructure to facilities alternative transportation modes, including proximity to bus routes operating by the Los Angeles County Metropolitan Transportation Authority (i.e., Routes 158, 166, 167, 242, 243, 244, 245, 364), Santa Clarita Transit Routes 791 and 796, Antelope Valley Transit Authority Route 787, and LADOT Commuter Express Route 419.

    - Located near residential neighborhoods. The Project site's proximity to medium- and high-density residential neighborhoods increases the likelihood that more travel to and from the development would be made by non-motorized modes that would reduce potential GHG emissions.

2. **GHG Emissions Associated with Energy Demand.** The Project must meet Title 24 2013 standards and include Energy Star appliances, have pre-wiring for future solar facilities, and off-grid pre-wiring for future solar facilities. This includes:

    - Use of low-emitting paints, adhesives, carpets, coating, and other materials.

    - Equipment and fixtures would comply with the following where applicable:

        - Installed gas-fired space heating equipment would have an Annual Fuel Utilization Ratio of .90 or higher.

        - Installed electric heat pumps would have a Heating Seasonal Performance Factor of 8.0 or higher.

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[57] *U.S. Green Building Council. "Interpretation 10396" accessed at http://www.usgbc.org/leed-interpretations?keys=10396 February 26, 2015.*

- Installed cooling equipment would have a Seasonal Energy Efficiency Ratio higher than 13.0 and an Energy Efficiency Ratio of at least 11.5.
- Installed tank type water heaters would have an Energy Factor higher than .6.
- Installed tankless water heaters would have an Energy Factor higher than .80.
- Perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow.
- Building lighting in the kitchen and bathrooms within the dwelling units would consist of at least 90 percent ENERGY STAR qualified hard-wired fixtures (luminaires).

- An electrical conduit would be provided from the electrical service equipment to an accessible location in the attic or other location suitable for future connection to a solar system. The conduit shall be adequately sized by the designer but shall not be less than one inch. The conduit shall be labeled as per the Los Angeles Fire Department requirements. The electrical panel shall be sized to accommodate the installation of a future electrical solar system.
- A minimum of 250 square feet of contiguous unobstructed roof area would be provided for the installation of future photovoltaic or other electrical solar panels. The location shall be suitable for installing future solar panels as determined by the designer.
- Appliances would meet ENERGY STAR if an ENERGY STAR designation is applicable for that appliance.

3. **GHG Emissions Associated with Water Use.** The Project would be required to provide a schedule of plumbing fixtures and fixture fittings that reduce potable water use within the development by at least 20 percent. It must also provide irrigation design and controllers that are weather- or soil moisture-based and automatically adjust in response to weather conditions and plants' needs. Wastewater reduction measures must be included that help reduce outdoor potable water use. This would include:

- A schedule of plumbing fixtures and fixture fittings that would reduce the overall use of potable water within the building by at least 20 percent shall be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the California Building Standards Code. The 20 percent reduction in potable water use shall be demonstrated by one of the following methods:
  - Each plumbing fixture and fitting shall meet reduced flow rates specified on Table 4.303.2; or

- A calculation demonstrating a 20 percent reduction in the building "water use" baseline would be provided.

- When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads would not exceed specified flow rates.

- When automatic irrigation system controllers for landscaping are provided and installed at the time of final inspection, the controllers shall comply with the following:

  - Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change;

  - Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s).

4. **GHG Emissions Associated with Solid Waste Generation.** The Project is subject to construction waste reduction of at least 50 percent. In addition, Project Site operations are subject to AB 939 requirements to divert 50 percent of solid waste to landfills through source reduction, recycling, and composting. The Project is required by the California Solid Waste Reuse and Recycling Access Act of 1991 to provide adequate storage areas for collection and storage of recyclable waste materials.

5. **GHG Emissions Associated with Environmental Quality.** The Project must meet strict standards for any fireplaces and woodstoves, covering of duct openings and protection of mechanical equipment during constructions, and meet other requirements for reducing emissions from flooring systems, any CFC and halon use, and other project amenities. This would include:

   - Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate gas, plumbing, electrical lines and other necessary penetrations must be sealed in compliance with the California Energy Code.

   - Provide flashing details on the building plans which comply with accepted industry standards or manufacturer's instructions around windows and doors, roof valley, and chimneys to roof intersections.

Taken together, these strategies encourage providing recreational, cultural, and a range of shopping, entertainment and services all within a relatively short distance; providing employment near current and planned transit stations and neighborhood commercial centers; and supporting alternative fueled and electric vehicles. As a result, the Project would be consistent with applicable State, regional and local GHG emissions reduction strategies. Given that the Project would generate GHG emissions that are less than significant, and given that GHG emission impacts are cumulative in nature, the Project's incremental

contribution to cumulatively significant GHG emissions would be less than cumulatively considerable, and impacts would be less than significant.

Cumulative Impacts

The emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG emissions from more than one project and many sources in the atmosphere that may result in global climate change. The consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. The State has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce is predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. At a minimum, most project-related emissions, such as energy, mobile, and construction, would be covered by the Cap-and-Trade Program.

Currently, there are no applicable CARB, SCAQMD, or City of Los Angeles significance thresholds or specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative levels. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions. Therefore, consistent with CEQA Guideline Section 15064h(3), the City as Lead Agency has determined that the Project's contribution to cumulative GHG emissions and global climate change would be less than significant if the Project is consistent with the applicable regulatory plans and policies to reduce Greenhouse Gas Emissions: Executive Orders S-3-05 and B-30-15; AB 32, the 2012-2035 RTP/SCS and the City of Los Angeles Green Building Ordinance and Mobility 2035 Plan.

Implementation of the Project's regulatory compliance measures and project design features, including State mandates, would contribute to GHG emissions reductions. These reductions represent a reduction from NAT and support State goals for GHG emissions reduction. The methods used to establish this relative reduction are consistent with the approach used in the CARB's *Climate Change Scoping Plan* for the implementation of AB 32.

The Project is consistent with the approach outlined in CARB's *Climate Change Scoping Plan*, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, as recommended by CARB's *Climate Change Scoping Plan*, the Project would use "green building" features as a framework for achieving cross-cutting emissions reductions as new buildings and infrastructure would be designed to achieve the standards of CALGreen.

As part of SCAG's 2012–2035 SCS/RTP, a reduction in VMT within the region is a key component to achieve the 2020 and 2035 GHG emission reduction targets established by CARB. The Project results in significant VMT reduction in comparison to NAT and would be consistent with the SCS/RTP.

The Project also would comply with the City of Los Angeles Green Building Code, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. The Project's regulatory compliance measures and project design features provided above and throughout this analysis would advance these objectives. Further, the related projects would also be anticipated to comply with many of these same emissions reduction goals and objectives (e.g., City of Los Angeles Green Building Code).

Additionally, the Project has incorporated sustainability design features in accordance with regulatory requirements as provided in the regulatory compliance measures throughout this analysis and project design features to reduce VMT and to reduce the Project's potential impact with respect to GHG emissions. With implementation of these features, the Project results in a 30 percent reduction in GHG emissions from NAT. The Project's GHG emissions reduction measures make the Project consistent with AB 32.

As discussed above, the Project is consistent with the applicable GHG emissions reduction plans and policies. The NAT comparison demonstrates the efficacy of the measures contained in these policies. Moreover, while the Project is not directly subject to the Cap-and-Trade Program, that Program would indirectly reduce the Project's GHG emissions by regulating "covered entities" that affect the Project's GHG emissions, including energy, mobile, and construction emissions. More importantly, the Cap-and-Trade Program would backstop the GHG emissions reduction plans and policies applicable to the Project in that the Cap-and-Trade Program would be responsible for relatively more emissions reductions should California's direct regulatory measures reduce GHG emissions less than expected. This would ensure that the GHG reduction targets of AB 32 are met.

Thus, given the Project's consistency with State, regional, and City GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded that the Project's impacts are cumulatively less than significant.

8. HAZARDS AND HAZARDOUS MATERIALS

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 Project includes development of the Project site with a hotel, gym, retail, and restaurant land uses, similar to those already found in the Project site area and region that would use common types of cleaning products, paint, petroleum products, etc. The Project would not require the routine transport, use, or disposal of hazardous materials that would pose a significant hazard to the public or environment. Therefore, Project impacts related to hazardous materials would be less than significant, and no further analysis of this issue is required.

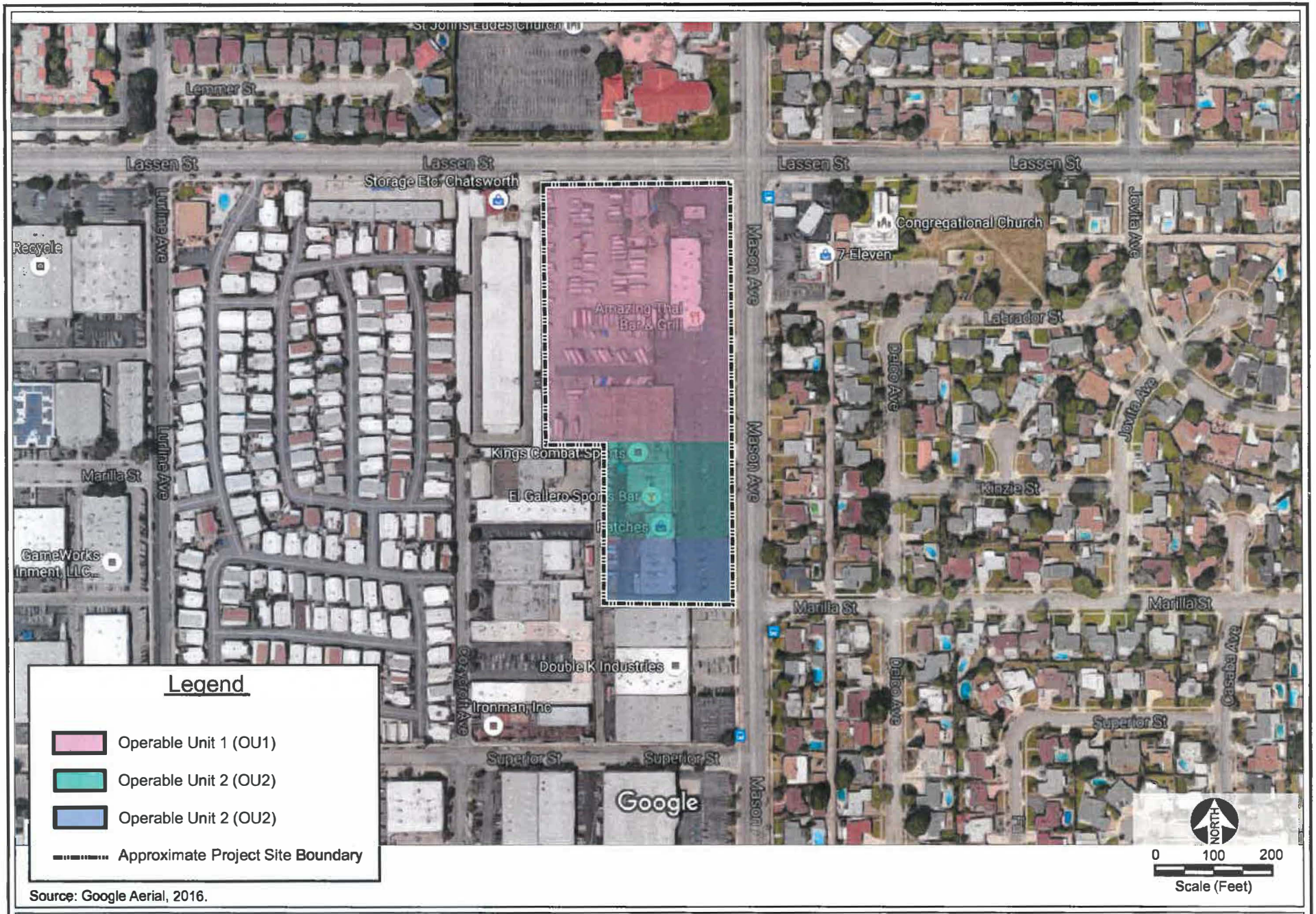
b) Would the project create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant With Mitigation Incorporated. For purposes of this analysis, the Project site is divided into three areas – Operable Unit 1 (OU1), Operable Unit 2 (OU2), and Operable Unit 3 (OU3) (refer to Figure IV-1). OU1 includes five separate land parcels identified by County of Los Angeles Assessor Parcel Numbers (APNs) 2748-005-020; -021; -022; -044; and -048. The total area of OU1 is 271,605 square feet or approximately 6.2 acres. OU1 is commercially developed and includes five buildings totaling 43,510 square feet currently utilized as auto repair, retail, restaurant, and office space. The northwest portion of OU1 contains a fenced yard utilized for trailer storage. OU2 includes two land parcels identified by APNs 2748-005-027 and 2748-005-028. The total area of OU2 is 52,870 square feet or approximately 1.2 acres. OU2 is commercially developed and includes two buildings totaling 14,600 square feet currently utilized as retail space. OU3 includes one land parcel identified by APN 2748-005-029. The total area of OU3 is 42,296 square feet or approximately 0.97 acres. OU3 is commercially developed and includes one building totaling 8,470 square feet currently utilized as retail space.

In March 2013, Stantec Consulting, Inc. (Stantec) prepared a Phase I Environmental Site Assessment (Phase I ESA) for the Project site (refer to Appendix E) that identified the following recognized conditions of concern (REC):

- The former use of 20504 Lassen Street site address as a gasoline service station from 1962 to 1970.

- The current use of 20504 Lassen Street site address as an automotive repair facility associated with the use, handling, storage, and the reported disposal of regulated chemicals and hazardous waste (unspecified aqueous solution).



Source: Google Aerial, 2016.

CAJA Environmental Services, LLC

Figure IV-1
Operable Units

- The former use the 9737 site address as a dry cleaning facility from 1964 to 2008 with the reported disposal of halogenated solvents (chloroform methyl chloride, perchloroethylene [PCE]).

- The current use of 9733 Mason Avenue site address as a lawn mower repair shop associated with the use, handling, storage, and reported disposal of waste and mixed oil.

In the Phase I ESA, Stantec recommended additional investigation of the Project site

In September 2013 and in response Stantec's recommendations, Geosyntec Consultants (Geosyntec) prepared a Site Subsurface Investigation Report (refer to Appendix E) to further evaluate the presence of subsurface impacts based on the results of the Phase I ESA and historical operations conducted at the Project site. The scope of the investigation included the advancement of 30 borings for the collection and analysis of soil, soil vapor, and grab groundwater samples. Sufficient data was obtained to reasonably characterize the nature and extent of soil, soil vapor, and groundwater and to assess the current and future potential health risks at the site. Based on the findings of the subsurface site investigation, the conclusions are discussed as follows:

- The subsurface at the Project site consists primarily of sand, gravelly sand, silty sand, and sandy silt from the surface to the explored depth of 125 feet below ground surface (bgs). In the southern portion of the Project site, fine-grained layers at 21, 29, and 38 feet bgs exist. The fine-grained layers at these depths are 2 to 5 feet thick. The first encountered groundwater was observed in the borings at depths of 119 and 125.5 feet bgs.

- The results of the investigation indicate that chemicals associated with the past site use in soil are generally not present at concentrations exceeding residential screening levels (RSLs).

- The grab groundwater samples collected do not indicate the presence of volatile organic compounds (VOCs) or petroleum hydrocarbons in the groundwater. With the exception of a single detection of trichloroethylene (TCE) (22 µg/L) in groundwater, the groundwater underlying the Project site does not appear to be significantly impacted based on a comparison to drinking water maximum contaminant levels (MCLs). The single TCE detection may not be related to possible releases originating from the Project site considering the lack of significant concentrations of TCE in soil and the PCE/TCE ratios observed in both soil and soil vapor during the investigation.

- The soil vapor samples collected at 5 and 15 feet bgs in the northern and southern portion of the Project site detect VOCs concentrations. PCE is the primary VOC, and is present in soil vapor at concentrations exceeding the commercial California Human Health Screening Levels (CHHSLs) (603 $\mu g/m^3$). The elevated PCE concentrations were detected primarily near the former drycleaner area (located in the southern portion of the Project site) and extend towards the western and southern property boundaries. PCE concentrations in the central

portion of the Project site are below the commercial CHSSL and slightly above the commercial CHHSL in the northern portion of the site.

- The PCE concentrations at the auto repair area (located in the northern portion of the site) are in the range of 484 to 1,730 µg/m3. TCE was not detected above the commercial CHHSL (1,770 µg/m3).

- The PCE concentrations near the former drycleaner at the southern portion of the Project ranged from 967 to 49,700 µg/m3. With the exception of one sample collected from boring SV-08 at 5 feet bgs PCE was detected at concentrations of 79,100 µg/m3 (one case volume purge).

- Based on the results of the investigation and historical data, the lateral extent of PCE in soil vapor is generally characterized for commercial scenario except in the western and southern directions. The PCE soil vapor plume in these two directions appears to extend offsite. A machine shop is located directly to the west and a kitchen and bath store to the south. In the east, residences are located across a four lane public right-of-way. The PCE concentration at SV-11 located at the eastern property boundary detected 1,310 (above residential CHHSL of 180 µg/m3). This should be further investigated to rule-out potential risk to offsite residences.

- The vertical PCE distribution in the soil vapor was generally uniform with minimal concentration change between the samples collected from 5 and 15 feet bgs. This is likely due to the high permeability coarse-grain soil that is present in the area facilitating advective soil vapor transport.

- Based on the PCE concentrations observed in 15 feet bgs samples, the vertical extent of the PCE in soil vapor is not defined. However, it is estimated that the presence of a fine-grained unit at 21 feet bgs will likely limit the vertical migration of PCE in soil vapor.

In summary, the principal exposure pathway of concern for chemicals detected at the Project site is the migration of vapors from the subsurface through the soil column and into indoor air of the enclosed buildings. PCE is present in the subsurface at elevated concentrations in soil vapor. Chemical impacts to soil and groundwater do not appear to be significant.

In June 2015, Geosyntec conducted additional soil and soil vapor sampling at OU1 to confirm that no RECs exist at OU1 and concluded the following:

- Near surface soil materials extending to 40 feet below grade consist primarily of silty sand with minor gravels. Fine-grained layers were observed at depths of 21, 29, and 38 feet bgs. The fine-grained layers at these depths were two to five feet thick. Below 40 feet, soil encountered during previous assessment consisted primarily of gravelly sand, sand with

gravel, sand, silty sand, and sandy silt to approximately 125 feet bgs (the maximum depth investigated).

- Groundwater was observed in previous soil borings at depths of 119 and 125.5 feet bgs and the groundwater flow direction is towards the southeast.

- Concentrations of VOCs were not detected in groundwater grab samples collected from soil borings located on OU1.

- Low concentrations of PCE, benzene, toluene, ethylbenzene and o-xylenes detected in soil samples collected from the OU1 are well below the Regional Water Quality Control Board, San Francisco Region (RWQCB-SFR) Tier 1 Environmental Screening Levels (ESLs) for residential and commercial sites.

- Concentrations of PCE and TCE were detected in soil vapor samples collected by Geosyntec in 2013 and by GESI in 2014 and 2015. Several small areas of PCE and TCE in the soil gas were identified in the northern portion of OU1. The presence of PCE and TCE in the soil vapor was likely the result of previous onsite or offsite use of cleaning solvents.

- Additional soil vapor sampling in May 2015 identified low concentrations of PCE in the soil at locations DVB-08 and DVB-09 at depths of 25 feet and 40 feet. PCE was not detected in soil vapor samples collected from DVB-1 0 at depths of 15 feet and 25 feet.

- PCE and TCE in the soil have been adequately assessed in OU1 and is not very extensive. The lateral and vertical extent of PCE and TCE in the soil in OU1 has been defined.

- Analysis of the human health risk associated with the detected concentrations of PCE and TCE in the soil vapor collected from vapor probes in OU1 was completed using the Vapor Intrusion Screening Model for Soil Gas (DTSC, December 2014). Based upon the model analysis, the detected concentrations of PCE and TCE in soil gas do not represent a human health risk for cancer of greater than a one in a million threshold or a health hazard quotient greater than the threshold of concern of 1.0 for commercial use.

- The detected concentrations of PCE in soil gas do not represent a human health risk for cancer of greater than a one in a million threshold or a health hazard quotient greater than the threshold of concern of 1.0 for commercial use.

- The detected concentration of TCE in soil gas one sample located in the northeast corner of Parcel 27 48-005-044 near the sidewalk adjacent to Lassen Street is slightly greater than the human health risk for cancer of one in a million threshold and the health hazard quotient threshold of concern of 1.0 for residential use. The sample location is not near an occupied

building area, it not believed to originate from an onsite source, and does not represent a significant threat to the health of current or future occupants.

Geosyntec concluded the low concentrations of VOCs detected in the soil and soil vapor do not represent a significant risk to human health or the environment. Residual concentrations of the VOCs in the soil will continue to degrade and decrease in concentration over time. Geotsyntec recommended DTSC issue a closure letter for the OU1 portion of the Project site without restriction to future land use.

In July 2015, DTSC issued a No Further Action letter for OU1 (refer to Appendix E). DTSC noted in their letter that OU2 and OU3 would require additional investigation and/or remediation prior to issuance of a No Further Action determination by DTSC. The owner of OU2 and OU3 is currently in the process of on-going cleanup efforts overseen by DTSC as its own project. It is anticipated that remediation of OU2 and OU3 will be complete by approximately the end of 2017. As outlined in Mitigation Measure 8-1, prior to issuance for a demolition permit for buildings located on OU2 and OU3, the Project Applicant would be required to submit a No Further Action letter issued by DTSC for OU2 and OU3. No Project-related activities (construction or operation) would occur on OU2 and OU3 until after DTSC has issued a No Further Action letter for this portion of the Project site. Once the No Further Action letter has been issued for OU2 and OU3, these parcels would not pose a risk to human health and the environment under unrestricted land use, and the Project would not create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment associated with contamination at the Project site. As such, with implementation of Mitigation Measure 8-1, Project impacts related to contamination at the Project site would be less than significant.

The Project includes demolition and removal of some of the existing structures and parking areas at the Project site, including approximately 23,820 square feet of the retail land uses, the 1,032-square-foot automobile care center, the 1,606-square-foot single-family house, and the surface parking areas. The Project includes adaptive reuse of approximately 16,845 square feet of the existing retail structures as new retail land uses and the 19,569-square-foot building used for RV and boat storage as a fitness center, and development of the remainder of the Project site with a 124-room hotel (87,521 square feet), 9,774 square feet of restaurant land uses, and 7,696 square feet of restaurant with drive-thru land uses, and surface parking. Considering the age of the existing buildings (1923-1961) that would be demolished or altered, it is possible that asbestos-containing materials (ACMs) and lead-based paint (LBP) could be encountered during the Project's construction phase. However, prior to the issuance of any demolition and/or alteration permits, the Applicant shall provide a letter to the Department of Building and Safety from a qualified asbestos abatement consultant indicating that no ACMs are present on the Project Site. If ACMs are discovered on site during demolition or construction, proper abatement regulations shall be followed. Because the Project would be required to comply with the SCAQMD Rule 1403, which regulates the removal of ACMs to ensure that asbestos fibers are not released into the air during demolition and/or renovation activities, as well as other applicable state and federal regulations, impacts from ACMs would

be less than significant. Demolition and removal of the existing buildings would be required to comply with CCR Title 8, Section 1532 et seq., which requires that all LBP be abated and removed by a licensed lead contractor. In addition, standard handling and disposal practice shall be implemented pursuant to CALOSHA regulations. Prior to issuance of a demolition permit, a LBP survey shall be performed and approved by the Department of Building and Safety.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Two schools are located within one-quarter mile of the Project site – St. John Eudes School and Chatsworth High School – both located north of the Project site. As discussed in response to Checklist Question 8(b), the existing buildings on the Project site were built in 1923-1931 and due to this construction timeframe, the buildings could contain ACMs and LBP. However, prior to the issuance of any demolition and/or alteration permits, the Applicant shall provide a letter to the Department of Building and Safety from a qualified asbestos abatement consultant indicating that no ACMs are present on the Project site. If ACMs are discovered on site during demolition or construction, proper abatement regulations shall be followed. Because the Project would be required to comply with the SCAQMD Rule 1403, which regulates the removal of ACMs to ensure that asbestos fibers are not released into the air during demolition and/or renovation activities, as well as other applicable state and federal regulations, impacts from ACMs would be less than significant. Demolition and removal of the existing buildings would be required to comply with CCR Title 8, Section 1532 et seq., which requires that all LBP be abated and removed by a licensed lead contractor. In addition, standard handling and disposal practice shall be implemented pursuant to CALOSHA regulations. Prior to issuance of a demolition permit, a LBP survey shall be performed and approved by the Department of Building and Safety.

Additionally, as discussed in response to Checklist Question 8(a), the Project includes development of the Project site with a hotel, gym, retail, and restaurant land uses, similar to those already found in the Project region that would use common types of cleaning products, paint, petroleum products, etc. The Project would not require the routine transport, use, or disposal of hazardous materials that would pose a significant hazard to the public or environment. Thus, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, no impacts related to this issue would occur.

d) Would the project be located on a site which 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?

Less Than Significant With Mitigation Incorporated. The southern portion of the Project site (OU2 and OU3, refer to response to Checklist Question 8[b]) is listed on DTSC's EnviroStor website as currently undergoing voluntary cleanup, overseen by DTSC.[58] As discussed in response to Checklist Question 8(b), prior to issuance of a demolition permit, the Project Applicant would be required to submit a No Further Action letter issued by DTSC to the Department of Building and Safety for OU2 and OU3 (refer to Mitigation Measure 8-1). As such, the Project would not create a significant hazard to the public or the environment, and impacts related to this issue would be less than significant.

e) For a project 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, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is not located within two miles of a public airport. The closest airport is the Van Nuys Airport located approximately 8 miles southeast of the Project site. Thus, the Project would not result in a safety hazard associated with an airport for people residing or working in the Project area. Therefore, no impacts related to this issue would occur.

f) For a project 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. The Project site is not located within the vicinity of a private airstrip. The closest airport is the Van Nuys Airport located approximately 8 miles southeast of the Project site. Thus, the Project would not result in a safety hazard associated with an airport for people residing or working in the Project area. Therefore, no impacts related to this issue would occur.

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

No Impact. No aspects of the Project would inhibit access to hospitals, emergency response centers, school locations, communication facilities, highways and bridges, or airports. Further, the Project would

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[58] *Department of Toxic Substances Control, 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=9805%20mason%20avenue,%20los%20angeles,%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, hit on November 9, 2016.*

comply with all applicable City policies related to disaster preparedness and emergency response. Thus, no impacts related to this issue would occur.

h) Would the project 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?

No Impact. The Project site is located in an urbanized are of the City and is not subject to wildland fire hazards. Thus, the Project would not 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. Therefore, no impacts related to this issue would occur.

Mitigation Measures

To ensure that Project impacts related to hazards and hazardous materials would be less than significant, the following mitigation measure is required:

8-1: Prior to issuance of a demolition permit for buildings located on OU2 and OU3 of the Project site, the Project Applicant shall submit a No Further Action letter issued by DTSC to the Department of Building and Safety.

Cumulative Impacts

The geographic extent of the Project's environmental impacts is limited to the Project site and would not contribute to any other potential environmental impact that may occur beyond the Project site boundaries. All related projects would be subject to discretionary or ministerial review by their respective jurisdictions, which would be responsible for assessing potential hazards risks associated with those related projects, and if necessary, the applicants of those projects would be required to implement measures appropriate for the type and extent of hazardous materials present and the land use proposed to reduce the risk associated with the hazardous materials to an acceptable level. As stated previously, with mitigation, the Project would not result in any significant impacts related to hazards and hazardous materials. Therefore, no significant cumulative impacts related to hazards and hazardous materials would occur.

9. HYDROLOGY AND WATER QUALITY

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

Less Than Significant Impact. The Project would be required to comply with the NPDES General Construction Permit including the preparation of a SWPPP and implementation of BMPs, required to minimize soil erosion and sedimentation from entering the storm drains during the construction period. In addition, the Project would be subject to the City's Stormwater and Urban Runoff Pollution Control

regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project site would be minimized for downstream receiving waters. Compliance with the NPDES and implementation of the SWPPP and BMPs, as well as the City's discharge requirements would ensure that construction stormwater runoff would not violate water quality and/or discharge requirements.

Stormwater runoff generated during operation of the Project has the potential to introduce small amounts of pollutants typically associated with mixed-use developments (e.g., household cleaners, landscaping pesticides, and vehicle petroleum products) into the stormwater system. Stormwater runoff from precipitation events could carry urban pollutants into municipal storm drains, however during operation the Project would be required to comply with the City's Low Impact Development (LID) Ordinance. The LID Ordinance applies to all development and redevelopment in the City that requires a building permit. LID Plans are required to include a site design approach and BMPs that address runoff and pollution at the source. Further, to comply with LID Ordinance the Project would be required to capture and treat the first 3/4-inch of rainfall in accordance with established stormwater treatment priorities. Compliance with the LID Ordinance would reduce the amount of surface water runoff leaving the Project Site as compared to the current conditions. Compliance with the LID Plan and Standard Urban Stormwater Mitigation Plan (SUSMP), including the implementation of BMPs, would ensure that operation of the Project would not violate water quality standard and discharge requirements or otherwise substantially degrade water quality.

Conformance with these regulations would ensure construction and operational activities would result in would not violate water quality standards, waste discharge requirements, or otherwise substantially degrade water quality. Therefore, Project impacts related to water quality would be less than significant.

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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. In its existing condition, the Project site is completely developed with impervious surfaces, including buildings and surface parking. During storm events, stormwater from the Project site flows to the City's existing storm drain system. No stormwater that encounters the Project site reaches groundwater depth (greater than 50 feet below ground surface) below the Project site. As such, the Project site is not a source of groundwater recharge. Implementation of the Project would not alter this condition. Additionally, all water consumption associated with the Project would be supplied by the Metropolitan Water District (MWD) and not from groundwater beneath the Project site. Thus, the Project would have no affect on groundwater supplies or recharge, and no impacts related to this issue would occur.

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, which would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. As discussed previously, the Project Applicant would be required to prepare a SWPPP and implement BMPs to reduce runoff and preserve water quality during construction of the Project. While grading and construction activities may temporarily alter the existing drainage patterns of the site, BMPs would be implemented to minimize soil erosion impacts during Project grading and construction activities. In addition, the Project Applicant would be required to implement a LID Plan (during operation), which would reduce the amount of surface water runoff leaving the Project site after a storm event. Specifically, the LID Plan would require the implementation of stormwater BMPs to retain or treat the runoff from a storm event producing 3/4-inch of rainfall in a 24-hour period. Thus, the Project would not 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, which would result in substantial erosion or siltation on- or off-site. Therefore, Project impacts related to erosion or siltation would be less than significant.

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 which would result in flooding on- or off-site?

Less Than Significant Impact. In its existing condition, the Project site is completely developed with impervious surfaces, including buildings and surface parking. During storm events, stormwater from the Project site flows to the City's existing storm drain system. The Project would not increase the amount of impervious surface at the Project site and as such, would not increase the amount of runoff from the Project site. The Project developer would be required to implement BMPs (pursuant to SUSMP regulations) and to develop appropriate drainage infrastructure on the site to meet regulatory water quality requirements and to control drainage from the site to not exceed existing rates. Thus, the Project would not increase the runoff from the site entering the City's existing storm drain facilities. As such, the Project would not exceed the capacity of the existing or planned drainage system and would not cause flooding. Therefore, Project impacts related to storm drain capacity and flooding would be less than significant.

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

Less Than Significant Impact. Regarding storm drain impacts, refer to response to Checklist Question 9(d). Impacts related to water quality are discussed in response to Checklist Question 9(a).

f) Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. Impacts related to water quality are discussed in response to Checklist Question 9(a).

g) Would the project 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?

No Impact. The Project site is not located within a 100-year flood hazard area. Thus, the 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. Therefore, no impacts related to this issue would occur.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. The Project site is not located within a 100-year flood hazard area. Thus, the Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. Therefore, no impacts related to this issue would occur.

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?

No Impact. The Project site is not located in any area susceptible to floods associated with a levee or dam. Therefore, the Project would not 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, and no impacts related to this issue would occur.

j) Would the project expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?

No Impact. The Project site is not in an area susceptible to seiches, tsunamis, or mudflows. Therefore, the Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow.

Cumulative Impacts

The sites of the proposed Project and the related projects are located in an urbanized area where most of the surrounding properties are already developed. The existing storm drainage system serving this area has been designed to accommodate runoff from an urban built-out environment. When new construction occurs it generally does not lead to substantial additional runoff, since new developments is required to control the amount and quality of stormwater runoff coming from their respective sites. Additionally, all

new development in the City is required to comply with the City's LID Ordinance and incorporate appropriate stormwater pollution control measures into the design plans to ensure that water quality impacts are minimized. Therefore, cumulative impacts related to hydrology and water quality would be less than significant.

10. LAND USE AND PLANNING

a) Would the project physically divide an established community?

No Impact. The Project site is currently developed with approximately 40,820 square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. Redevelopment of the Project site that is proposed as part of the Project would not physically divide an established community. Therefore, no impacts related to this issue would occur.

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. As discussed below, the Project would be substantially consistent with all of the applicable plans, policies, and regulations associated with development of the Project site. Therefore, Project impacts related to land use and planning would be less than significant.

Regulatory Framework

Regional Plans

Southern California Association of Governments

The Southern California Association of Governments (SCAG) functions as the Metropolitan Planning Organization for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The SCAG region encompasses a population exceeding 18 million persons in an area of more than 38,000 square miles. As the federally-designated Metropolitan Planning Organization, SCAG is mandated to research and create plans for transportation, growth management, hazardous waste management, and air quality. Applicable SCAG publications are discussed below.

Compass Blueprint Growth Vision Report/Compass Blueprint 2% Strategy Areas

The Compass Blueprint Growth Vision Report/Compass Blueprint 2% Strategy (the "Compass Blueprint Report"), adopted by SCAG as part of its June 2004 Southern California Compass Growth Vision Report, is an implementing mechanism for the regional growth strategies outlined in the SCAG's 1996 Regional Comprehensive Plan and Guide (the "RCPG"). The Compass Blueprint Report is intended to provide a strategy to accommodate the projected 24 million residents expected to live in the region by 2035, while balancing valuable quality of life goals. The Compass Blueprint Report emphasizes focusing growth in existing and emerging centers and along major transportation corridors, creating significant areas of mixed-use development and walkable communities, targeting growth around existing and planned transit stations, and preserving existing open space and stable residential areas.

Four principles were established for the Compass Blueprint Report that are intended to promote and maximize regional mobility, livability, prosperity, and sustainability. It is SCAG's intention that decisions regarding growth, transportation, land use, and economic development should support and be guided by these principles. Specific policy and planning strategies are also provided as a way to achieve each of the principles, as summarized below.

- *Principle 1. Improve mobility for all residents.* Strategies to support Principle 1 include: (1) encourage transportation investments and land use decisions that are mutually supportive; (2) locate new housing near existing jobs and new jobs near existing housing; (3) encourage transit-oriented development; and (4) promote a variety of travel choices.

- *Principle 2. Foster livability in all communities.* Strategies to support Principle 2 include: (a) promote infill development and redevelopment to revitalize existing communities; (b) promote developments that provide a mix of uses; (c) promote "people scaled," pedestrian friendly communities; and (d) support the preservation of stable, single-family neighborhoods.

- *Principle 3. Enable prosperity for all people.* Strategies to support Principle 3 include: (a) provide a variety of housing types in each community to meet the housing needs of all income levels; (b) support educational opportunities that promote balanced growth; (c) ensure environmental justice regardless of race, ethnicity, or income class; (d) encourage civic engagement; and (e) support local and state fiscal policies that encourage balanced growth.

- *Principle 4. Promote sustainability for future generations.* Strategies to support Principle 4 include: (a) preserve rural, agricultural, recreational, and environmentally sensitive areas; (b) focus development in urban centers and existing cities; (c) develop strategies to accommodate growth that use resources efficiently, eliminate pollution, and significantly reduce waste; and (d) utilize "green" development techniques.

The Compass Blueprint Report is a guideline for how and where the Growth Vision can be implemented. It calls for moderate changes to current land use and transportation trends in two percent of the land area

of the region, known as the 2% Strategy Opportunity Areas. These areas are defined as having a high potential to implement projects, plans, and/or policies consistent with the Compass Blueprint Report principles that would result in the greatest progress towards economic, mobility, livability and sustainability benefits to local neighborhoods.

Regional Comprehensive Plan

SCAG has also prepared the 2008 Regional Comprehensive Plan (the "2008 RCP") in response to SCAG's Regional Council directive in the 2002 Strategic Plan to define solutions to interrelated housing, traffic, water, air quality, and other regional challenges. The 2008 RCP is an advisory document that describes future conditions if current trends continue, defines a vision for a healthier region, and recommends an Action Plan with a target year of 2035. The 2008 RCP may be voluntarily used by local jurisdictions in developing local plans and addressing local issues of regional significance. The plan incorporates principles and goals of the Compass Growth Vision Report and includes nine chapters addressing land use and housing, transportation, air quality, energy, open space, water, solid waste, economy, and security and emergency preparedness. The action plans contained therein provide a series of recommended near-term policies that developers and key stakeholders should consider for implementation, as well as potential policies for consideration by local jurisdictions and agencies when conducting project review.

The 2008 RCP replaced the RCPG for use in SCAG's Intergovernmental Review (IGR) process. SCAG's Community, Economic and Human Development Committee and the Regional Council took action to accept the 2008 RCP, which now serves as an advisory document for local governments in the SCAG region for their information and voluntary use in developing local plans and addressing local issues of regional significance. However, as indicated by SCAG, because of its advisory nature, the 2008 RCP is not used in SCAG's IGR process. Rather, SCAG reviews new projects based on consistency with the Regional Transportation Plan (the "RTP") (discussed below) and the Compass Blueprint Report.

2016-2040 Regional Transportation Plan/Sustainable Communities Strategy

On September 30, 2008, SB 375 was instituted to help achieve AB 32 goals through regulation of cars and light trucks. SB 375 aligns three policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve GHG emissions reductions targets for the transportation sector. It establishes a process for the CARB to develop GHG emissions reductions targets for each region (as opposed to individual local governments or households). SB 375 also requires Metropolitan Planning Organizations to prepare a Sustainable Communities Strategy (SCS) within the RTP that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions.

On September 23, 2010, CARB adopted regional targets for the reduction of GHG emissions applying to the years 2020 and 2035. For the area under the SCAG jurisdiction, including the Project area, CARB adopted Regional Targets for reduction of GHG emissions by eight percent for 2020 and by 13 percent for 2035. On February 15, 2011, CARB's Executive Officer approved the final targets.

On April 4, 2012, the Regional Council of SCAG adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (the "2012-2035 RTP/SCS"). SCAG updates the RTP/SCS every four years. Through the conduct of a continuing, comprehensive, and coordinated transportation planning process in conformance with all applicable federal and state requirement, SCAG developed and prepared its latest RTP/SCS, the Final 2016-2040 RTP/SCS (the "2016-2040 RTP/SCS"), which sets forth the long-range regional plan, policies and strategies for transportation improvements and regional growth throughout the SCAG region through the horizon year of 2040, includes a regional growth forecast that was developed by working with local jurisdictions using the most recent land use plans and policies and planning assumptions, and a financially constrained plan and a strategic plan. The constrained plan includes transportation projects that have committed, available or reasonably available revenue sources, and thus, are probable for implementation. The strategic plan is an illustrative list of additional transportation investments that the region would pursue if additional funding and regional commitment were secured. Such investments are potential candidates for inclusion in the constrained RTP/SCS through future amendments or updates. The strategic plan is provided for information purposes only and is not part of the financially constrained and conforming 2016-2040 RTP/SCS.

The 2016-2040 RTP/SCS includes a financial plan identifying the revenues committed, available or reasonably available to support the SCAG region's surface transportation investments. The financial plan was developed following basic principles including incorporation of county and local financial planning documents in the region where available, and utilization of published data sources to evaluate historical trends and augment local forecasts as needed.

The 2016-2040 RTP/SCS includes a sustainable communities strategy which sets forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportations measures and policies, if implemented, will reduce the GHG emissions from automobiles and light trucks to achieve the regional GHG targets set by CARB for the SCAG region.

South Coast Air Quality Management District

Air Quality Management Plan

The Project is also located within the South Coast Air Basin (the "Basin") and is, therefore, within the jurisdiction of the SCAQMD. In conjunction with SCAG, the SCAQMD is responsible for formulating and implementing air pollution control strategies, including periodic updates to the AQMP, and guidance to local government about how to incorporate these strategies into their land use plans and decisions about development.

SCAG is responsible for generating the socio-economic profiles and growth forecasts on which land use, transportation, and air quality management and implementation plans are based. The growth forecasts provide the socioeconomic data used to estimate vehicle trips and VMT. Emission estimates then can be forecast by SCAQMD based on these projected estimates. Reductions in emissions due to changes in the socio-economic profile of the region are an important way of taking account of changes in land use patterns. For example, changes in jobs/housing balance induced by changes in urban form and transit-oriented development induce changes in VMT by more closely linking housing to jobs. Thus, socio-economic growth forecasts are a key component to guide the Basin toward attainment of the NAAQS.

The current AQMP establishes a comprehensive regional air pollution control program leading to the attainment of State and federal air quality standards in the Basin. In addition to setting minimum acceptable exposure standards for specified pollutants, the AQMP incorporates SCAG's growth management strategies that can be used to reduce vehicle trips and VMT, and hence air pollution. These include, for example, co-location of employment and housing, and mixed-use land patterns that allow the integration of residential and non-residential uses.

Air quality impacts of the Project and consistency of the Project with the AQMP are discussed in response to Checklist Question 3(a) of this IS/MND.

Los Angeles County Metropolitan Transportation Authority

Congestion Management Plan

The Congestion Management Plan (CMP) for Los Angeles County is intended to address vehicular congestion relief by linking land use, transportation, and air quality decisions. The CMP also seeks to develop a partnership among transportation decision-makers to devise appropriate transportation solutions that include all modes of travel, and to propose transportation projects, which are eligible to compete for state gas tax funds. Within Los Angeles, the Los Angeles County Metropolitan Transportation Authority (Metro) is the designated congestion management agency responsible for coordinating the CMP.

The Project's potential impacts with respect to the CMP are discussed in response to Checklist Question 16(b) of this IS/MND.

Local Plans

City of Los Angeles

City of Los Angeles General Plan

The City of Los Angeles General Plan (the "General Plan"), adopted December 1996 and re-adopted August 2001, provides general guidance on land use issues for the entire City. The General Plan consists of a Framework Element, a Land Use Element, and 10 citywide elements. The Framework Element of the General Plan serves as guide for the City's overall long-range growth and development policies and

serves as a guide to update the community plans and the citywide elements. The citywide elements address functional topics that cross community boundaries, such as transportation, and address these topics in more detail than is appropriate in the Framework Element, which is the "umbrella document" that provides the direction and vision necessary to bring cohesion to the City's overall general plan. The Framework Element provides a conceptual relationship between land use and transportation, and provides guidance for future updates to the various elements of the General Plan, but does not supersede the more detailed community and specific plans. The Land Use chapter of the Framework Element contains Long Range Land Use Diagrams that depict the generalized distribution of centers, districts, and mixed-use boulevards throughout the City, but the community plans determine the specific land use designations. The Land Use Element of the General Plan is contained within 35 community plans.

Chatsworth-Porter Ranch Community Plan

The Chatsworth-Porter Ranch Community Plan has been designed to accommodate the anticipated growth in population and employment of the Community to the year 2010. The Plan does not seek to promote or to hinder growth; rather it accepts the likelihood that growth will take place and must be provided for. The Plan encourages the preservation of low-density single-family residential areas, the conservation of open space lands, and the preservation and strengthening of the Chatsworth Community Business District. Much of the Chatsworth-Porter Ranch Community is hillside and mountainous terrain and as much of the remaining undeveloped lands as feasible is to be preserved for open space and recreational uses.

The northwest border of the City includes a wildlife migration corridor. The wildlife corridor through the Simi Hills and Santa Susana Mountains to the Santa Monica Mountains could be endangered by development and transportation arteries cutting through this vital link. The Plan encourages preservation by both public and private agencies of this critical natural feature. Within the Plan area, the Simi Freeway presents the most difficult barrier to wildlife. While there are several passes both under and over the freeway, they are predominately used by automobile traffic that presents a danger to wildlife. Culverts should be under the freeway west of Topanga Canyon Boulevard, constructed for wildlife and equestrians, and connected to trails.

The Chatsworth-Porter Ranch Community is contiguous to unincorporated Los Angeles County lands to its north and west, most of which remain vacant. It is imperative that the development of these lands be compatible with that of Chatsworth-Porter Ranch, as proposed in this Plan, particularly with respect to land uses, circulation and open space, and their impact on drainage and sewerage. To help ensure compatible development of these lands, the County area north of the Simi Freeway to the Oat Mountain ridgeline should be considered for annexation. (Map Footnote No. 11)

The existing land use designations for the Project site are Neighborhood Office Commercial and Limited Manufacturing (refer to Figure II-3 in Section II, Project Description).

City of Los Angeles Planning and Zoning Code

All development activity in the City, including the Project site, is subject to the LAMC, particularly Chapter 1, General Provisions and Zoning, also known as the City of Los Angeles Planning and Zoning Code (the "Zoning Code"). The Zoning Code includes development standards for the various districts in the City. As shown on Figure II-4 (refer to Section II, Project Description), the Project site is zoned [Q]MR1-1VL (Qualified Condition, Restricted Industrial Zone, Height District 1VL), C2-1VL (Commercial Zone, Height District 1L), P-1L (Automobile Parking Zone, Height District 1L), and P-1 (Automobile Parking Zone, Height District 1).

Project Impacts

Compass Blueprint Report

The Project's consistency with the Compass Blueprint Report is discussed on Table IV-15. As discussed, the Project would be consistent with applicable land use policies of the Compass Blueprint Report, and Project impacts related to inconsistency with this report would be less than significant.

Table IV-15
Project Consistency with Applicable Policies of the Compass Blueprint Report

Policy	Project Consistency
Locate new housing near existing jobs and new jobs near existing housing.	**Consistent.** The Project includes adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant. Single-family residential land uses are located to the north and east of the Project site. The proposed new land uses would provide employment opportunities near existing housing.
Encourage transportation investments and land use decisions that are mutually supportive.	**Consistent.** The Project includes adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, providing shopping and employment opportunities in proximity to various transit routes, including those shown on Table IV-35.
Support the preservation of stable single-family neighborhoods.	**Consistent.** Single-family residential land uses are located to the north and east of the Project site. The Project would not interfere with these neighborhoods.

Table IV-15
Project Consistency with Applicable Policies of the Compass Blueprint Report

Policy	Project Consistency
Focus development in urban centers and existing cities.	**Consistent.** The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, along Lassen Street and Mason Avenue, roadways that are already developed with various commercial land uses and sources of employment.
Utilize "green" development techniques.	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code and incorporates green and conservation features. The Project would also be consistent with the City of Los Angeles Building Code, including the Los Angeles Green Building Code (the "LAGBC"), which is designed to reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
Develop strategies to accommodate growth that use resources efficiently, and minimize pollution and greenhouse gas emissions.	**Consistent.** As discussed previously in the IS/MND, the Project would result in a reduction of GHG emissions as compared to the NAT scenario.
Source: Southern California Association of Governments, Southern California Compass Blueprint 2% Strategy, Southern California Compass Blueprint Growth Vision Report, June 2004.	

2008 RCP

A discussion of the Project's consistency with the relevant policies of the 2008 RCP is presented on Table IV-16. As discussed, the Project would be consistent with all of the applicable 2008 RCP policies, and no significant impacts related to inconsistency with the 2008 RCP would occur.

Table IV-16
Project Consistency with the 2008 RCP

Policies	Consistency Discussion
Land Use and Housing	
LU-6.2 Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code and incorporates green and conservation features. The Project would also be consistent with the City of Los Angeles Building Code, including the

Table IV-16
Project Consistency with the 2008 RCP

Policies	Consistency Discussion
California Green Builder Program.	LAGBC, which is designed to reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
Open Space and Habitat	
OSC-11 Developers should incorporate and local governments should include land use principles, such as green building, that use resources efficiently, eliminate pollution and significantly reduce waste into their projects, zoning codes and other implementation mechanisms.	**Consistent.** The Project would incorporate sustainable building practices to eliminate pollution and reduce waste. As described above, the Project would comply with the CalGreen requirements of the California Building Code and the LAGBC.
OSC-12 Developers and local governments should promote water-efficient land use and development.	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code and the LAGBC, which is designed to reduce the Project's energy and water use. This would include the use of drought tolerant landscaping and water efficient fixtures and plumbing.
OSC-14 Developers and local governments should implement mitigation for open space impacts through the following activities: • Individual projects should either avoid significant impacts to regionally significant open space resources or mitigate the significant impacts through measures consistent with regional open space policies for conserving natural lands, community open space, and farmlands. All projects should demonstrate consideration of alternatives that would avoid or reduce impacts to open space. • Project sponsors should ensure that transportation systems proposed in the RTP avoid or mitigate significant impacts to natural lands, community open space and important farmland, including cumulative impacts and open space impacts from the growth associated with transportation projects and improvements. • Project sponsors should fully mitigate direct and indirect impacts to open space resulting from implementation of regionally significant impacts.	**Consistent.** The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant. The Project would avoid significant impacts to regionally significant open space resources.
Water	
WA-9 Developers and local governments should consider	**Consistent.** The Project would comply with

Table IV-16
Project Consistency with the 2008 RCP

Policies	Consistency Discussion
potential climate change hydrology and resultant impacts on available water supplies and reliability in the process of creating or modifying systems to manage water resources for both year-round use and ecosystem health.	CalGreen requirements of the California Building Code and incorporate green and conservation features. The Project would also be consistent with the City of Los Angeles Building Code, including the LAGBC, which is designed to reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
WA-11 Developers and local governments should encourage urban development and land uses to make greater use of existing and upgraded facilities prior to incurring new infrastructure impacts.	**Consistent.** The Project would be required to confirm with LADWP that the capacity of the existing water infrastructure could supply the domestic needs of the Project during the construction and operation phases. The Project Applicant would be required to construct any upgrade to the water infrastructure serving the Project site that is needed to accommodate the Project's water consumption needs.
WA-12 Developers and local governments should reduce exterior uses of water in public areas, and should promote reduced use in private homes and businesses, by shifting to drought-tolerant native landscape plants (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing water related pricing incentives.	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code and incorporate green and conservation features. The Project would also be consistent with the City of Los Angeles Building Code, including the LAGBC, which is designed to reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
WA-32 Developers and local governments should pursue water management practices that avoid energy waste and create energy savings/supplies.	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code, for water and energy conservation, and with the LAGBC, which is designed to reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
Energy	
EN-10 Developers and local governments should integrate green building measures into project design and zoning such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Energy saving measures that should be explored for new and remodeled buildings include: • Using energy efficient materials in building design, construction, rehabilitation, and retrofit.	**Consistent.** The Project would meet/exceed Title 24 standards through compliance with the LAGBC.

Table IV-16
Project Consistency with the 2008 RCP

Policies	Consistency Discussion
• Encouraging new development to exceed Title 24 energy efficiency requirements. • Developing Cool Communities measures including tree planting and light-colored roofs. These measures focus on reducing ambient heat, which reduces energy consumption related to air conditioning and other cooling equipment. • Utilizing efficient commercial/residential space and water heaters: This could include the advertisement of existing and/or development of additional incentives for energy efficient appliance purchases to reduce excess energy use and save money. Federal tax incentives are provided online at http://www.energystar.gov/index.cfm?c+Projects.pr_tax_credits. • Encouraging landscaping that requires no additional irrigation: utilizing native, drought tolerant plants can reduce water usage up to 60 percent compared to traditional lawns. • Encouraging combined heating and cooling (CHP), also known as cogeneration, in all buildings. • Encouraging neighborhood energy systems, which allow communities to generate their own electricity. • Orienting streets and buildings for best solar access. • Encouraging buildings to obtain at least 20% of their electric load from renewable energy.	
EN-12 Developers and local governments should encourage that new buildings are able to incorporate solar panels in roofing and tap other renewable energy sources to offset new demand on conventional power sources.	**Consistent.** As required by the City, the roof of the proposed buildings would be designed to accommodate solar panels. Also, the Project would receive electricity supply from LADWP, which obtains a portion of its electricity supplies from renewable sources.
Solid Waste	
SW-14 Developers and local governments should integrate green building measures into project design and zoning including, but not limited to, those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design, Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. Construction reduction measures to be explored for new and remodeled buildings include: • Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.	**Consistent.** The Project would participate in a demolition and construction waste recycling program as well as an operational recycling program.

Table IV-16
Project Consistency with the 2008 RCP

Policies	Consistency Discussion
• An ordinance that requires the inclusion of a waste management plan that promotes maximum C&D diversion. • Source reduction through (1) use of building materials that are more durable and easier to repair and maintain, (2) design to generate less scrap materials through dimensional planning, (3) increased recycled content, (4) use of reclaimed building materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.). • Reuse of existing building structure and shell in renovation projects. Building lifetime waste reduction measures that should be explored for new and remodeled buildings include: • Development of indoor recycling program and space. • Design for deconstruction. • Design for flexibility through use of moveable walls, raised floors, modular furniture, moveable task lighting, and other reusable components.	

Source: Southern California Association of Governments, Regional Comprehensive Plan, October 2008.

2016-2040 RTP/SCS

The Project's consistency with the applicable goals of the 2016-2040 RTP/SCS is discussed on Table IV-17. As discussed, the Project would be consistent with the 2016-2040 RTP/SCS. Therefore, impacts related to inconsistency with the 2016-2040 RTP/SCS would be less than significant.

Table IV-17
Project Consistency with the 2016-2040 RTP/SCS

Goal	Consistency Discussion
Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** The Project would comply with CalGreen requirements of the California Building Code, for water and energy conservation. The Project would meet/exceed Title 24 standards with compliance with the City's Green Building Ordinance, and the Project would comply with the requirements of the City of Los Angeles Building Code, including the LAGBC, which is designed to

Table IV-17
Project Consistency with the 2016-2040 RTP/SCS

Goal	Consistency Discussion
	reduce the Project's energy and water use, reduce waste, and reduce the carbon footprint.
Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	**Consistent.** The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant. The Project would provide neighborhood-serving retail and restaurant land uses and sources of employment in proximity to various bus lines, including Los Angeles County Metropolitan Transit Authority (Metro) lines 158, 166/364, 167, 242/243, and 244/245; City of Santa Clarita Transit lines 791 and 796; Antelope Valley Transit Authority line 787; and LADOT Commuter Express 419.
Source: Southern California Association of Governments, Regional Transportation Plan/Sustainable Communities Strategy, April 2016.	

General Plan (Framework Element)

The Project's consistency with the General Plan Framework Element land use policies is discussed on Table IV-18. As shown, the Project would be consistent with many of the applicable policies, and Project impacts related to inconsistency of the Project with the General Plan Framework Element would be less than significant.

Table IV-18
Project Consistency with Applicable Policies of the Framework Element

Objective	Project Consistency
Framework Element: Land Use Chapter	
3.2.1 Provide a pattern of development consisting of distinct districts, centers, boulevards, and neighborhoods that are differentiated by their functional role, scale, and character. This shall be accomplished by considering factors such as the existing concentrations of use, community-oriented activity centers that currently or potentially service adjacent neighborhoods, and existing or potential	**Consistent.** The Project site is currently developed with approximately 40,820 square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant,

Table IV-18
Project Consistency with Applicable Policies of the Framework Element

Objective	Project Consistency
public transit corridors and stations.	and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project would provide neighborhood-serving retail and restaurant land uses and sources of employment in proximity to various bus lines, including Metro lines 158, 166/364, 167, 242/243, and 244/245; City of Santa Clarita Transit lines 791 and 796; Antelope Valley Transit Authority line 787; and LADOT Commuter Express 419.
3.2.2 Establish, through the Framework Long-Range Land Use Diagram, community plans, and other implementing tools, patterns and types of development that improve the integration of housing with commercial uses and the integration of public services and various densities of residential development within neighborhoods at appropriate locations.	**Consistent.** The Project site is currently developed with approximately 40,820 square feet of retail land uses, a 19,569-square-foot building used for RV and boat storage, a 1,032-square-foot automobile care center, and a 1,606-square-foot single-family home, and surface parking areas. Existing development in the Project site area is primarily low-rise in height and includes a church and single-family residential land uses to the north; a gas station, fast-food restaurant, and single-family residential land uses to the east; manufacturing land uses to the south; and manufacturing land uses and a mobile-home park to the west. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project would provide neighborhood-serving retail and restaurant land uses and sources of employment in proximity to various bus lines, including Metro lines 158, 166/364, 167, 242/243, and 244/245; City of Santa Clarita Transit lines 791 and 796; Antelope Valley Transit Authority line 787; and LADOT Commuter Express 419.

Table IV-18
Project Consistency with Applicable Policies of the Framework Element

Objective	Project Consistency
3.2.3 Provide for the development of land use patterns that emphasize pedestrian/bicycle access and use in appropriate locations.	**Consistent.** The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. Also, the Project includes 30 bicycle parking spaces.
3.2.4 Provide for the siting and design of the City's stable residential neighborhoods and enhance the character of commercial and industrial districts.	**Consistent.** The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The architecture, design, and massing of the proposed buildings would be similar to that of the existing commercial development within the Project site area. The Project would not intrude on any existing residential neighborhoods.
3.7.4 Improve the quality of new multi-family dwelling units based on the standards in Chapter 5 *Urban Form and Neighborhood Design* Chapter of this Element.	**Consistent.** The Project would be required to comply with all current and applicable design standards.

Source: City of Los Angeles General Plan.

Chatsworth-Porter Ranch Community Plan

Consistency of the Chatsworth-Porter Ranch Community Plan is discussed on Table IV-19. As discussed, the Project would be consistent with all applicable policies of the Chatsworth-Porter Ranch Community Plan. As such, the Project would not result in any inconsistencies with the Plan. Therefore, Project impacts related to inconsistency with the Chatsworth-Porter Ranch Community Plan would be less than significant.

Table IV-19
Project Consistency with Applicable Policies/Programs of the Chatsworth-Porter Ranch Community Plan

Policy/Program	Project Consistency
Circulation	
Highways and Local Streets shown on the Plan shall be developed in accordance with the standards and criteria contained in the Highways and Freeways Element of the General Plan and the City's Standard Street Dimensions. Design characteristics which give street identity such as curves, changes in direction and topographical differences should be emphasized by street trees and planted median strips and by paving. Streets, highways and freeways, when developed, should be designed and improved in harmony with adjacent development and to facilitate driver and passenger orientation. Adequate highway improvements shall be assured prior to the approval of zoning permitting intensification of land use in order to avoid congestion and assure proper development.	**Consistent.** The Project would not include the development of any new roadways. All ingress/egress and emergency access associated with the Project would be designed and constructed in accordance with Building and Safety, Los Angeles Fire Department (LAFD), and LAMC requirements.
Service Systems	
The proposed facilities shown in this Plan are to be developed in accordance with the standards for need, site area, design and location as expressed in the Service Systems Element of the General Plan. (See individual technical elements for specific standards.) Such development should be sequenced and timed to provide a workable, efficient, and adequate balance between land use and service facilities at all times. The full residential, commercial and industrial densities and intensities proposed by the Plan are predicated upon the provision of adequate public service facilities, with reference to the standards contained in the General Plan. No increase in density shall be affected by zone change or subdivision unless it is determined that such facilities are adequate to serve the proposed development.	**Consistent.** As discussed in response to Checklist Topic 14, Public Services and Checklist Topic 17, Utilities and Service Systems, existing public and utility services serving the Project site are adequate to serve the Project.
Public Improvements	

Table IV-19
Project Consistency with Applicable Policies/Programs of the Chatsworth-Porter Ranch Community Plan

Policy/Program	Project Consistency
Circulation To facilitate local traffic circulation, relieve congestion, and provide mobility for all citizens, the following are required: 1. Continued development of the highway and street system in conformance with existing traffic improvement programs; 2. Continued improvements to the public transportation system serving the Community; and 3. Monitoring of traffic mitigation measures for projects approved by discretionary review.	**Consistent:** As discussed in response to Checklist Question 16a, with implementation of Mitigation Measure 16-1, Project impacts related to transportation/traffic would be less than significant.
Other Public Facilities 2. Underground Utilities Where feasible, powerlines in new development should be placed underground. The Department of Water and Power should accelerate the program for placing existing powerlines underground.	**Consistent:** All utilities associated with the Project would be placed underground.
Source: Chatsworth-Porter Ranch Community Plan, 1993.	

Zoning Code

The Project site is zoned [Q]MR1-1VL (Qualified Condition, Restricted Industrial Zone, Height District 1VL), C2-1VL (Commercial Zone, Height District 1L), P-1L (Automobile Parking Zone, Height District 1L), and P-1 (Automobile Parking Zone, Height District 1). The Project includes a request for a discretionary approval of a Vesting Zone and Height District Change from C2-1L/P-1L to C2-1L, from [Q]MR1-1VL to CM-1L/M1-1, and from MR1-1/P1/C2-1L to CM-1L/M1-1, which would allow for a more unified zoning on the entire Project site and development of the site with the proposed uses.

Other requested zoning related discretionary approvals include the following:

- **VESTING TENTATIVE TRACT MAP (VTTM 74699)**, pursuant to LAMC Section 17.15, to merge eleven lots and re-subdivide the Subject Property into eight lots for a mixed-use Project including retail commercial/health club/restaurants and a hotel;

- **VESTING ZONE and HEIGHT DISTRICT CHANGE** pursuant to Los Angeles Municipal Code Section 12.32F, from **C2-1L/P-1L** to **C2-1L; from [Q]MR1-1VL** to **CM-1L/M1-1; and** from **MR1-1/P-1/C2-1L** to **CM-1L/M1-1;**

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.24(b) for the construction, use and operation of a Hotel in the M1/CM Zone where more than fifty-percent of the lot on which the Hotel is located is in the CM Zone;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.17 for the construction, use and operation of three drive-through fast food establishments in the C2 and CM Zones;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.27 to permit the use and operation of a 24-hour/day food establishment and the installation and use of a Pole Sign on Lot 6 (VTTM 74699), a "Commercial Corner Development" lot;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.19(a) to permit Residential Density Transfer for buildings that comprise a Unified mixed-use Development;

- **CONDITIONAL USE APPROVAL**, pursuant to LAMC Section 12.24W.1 for the sale and dispensing of a full line of alcoholic beverages including beer and wine as an incidental business in or accessory to two operators: 1) the proposed 124-guest room Residence Inn Hotel; and, 2) a 4,000-square-foot 132-seat restaurant; and

- **SITE PLAN REVIEW and APPROVAL**, pursuant to LAMC Section 16.05, for: a) a124-guest room hotel; b) a change of use with three drive-through fast-food establishments; and, c) the change use for the unified center, excluding the drive-through establishments, with a net increase of more than 1,000 daily trips.

All other aspects of the Project would comply with the zoning code. For these reasons, the Project would be substantially consistent with the zoning code.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Project site is not subject to any applicable habitat conservation plan or natural community conservation plan. Therefore, the Project would not conflict with any applicable habitat conservation plan or natural community conservation plan, and impacts related to this issue would occur.

Cumulative Impacts

As discussed previously, the Project would not result in any inconsistencies with any of the applicable plans, policies, or regulations associated with development of the Project site. The City would assess the consistency of the related projects with all applicable plans, policies, and regulations associated with those sites, individually. Regardless of any potentially inconsistencies the related projects may result in, because the Project would not result in any inconsistencies, the Project would not have the potential to contribute to any cumulative inconsistency impacts.

11. MINERAL RESOURCES

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?

No Impact. The Project site is located in an urbanized part of the City. There are no known mineral resources on the Project site or in the vicinity. Thus, the Project would not 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. Therefore, no impacts related to issue would occur.

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?

No Impact. The Project site is located in an urbanized part of the City. The Project site is not identified as a mineral resource recovery site. Thus, the Project would not 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. Therefore, no impacts related to issue would occur.

Cumulative Impacts

As discussed previously, the Project would not result in any impacts related to mineral resources. Regardless to what degree the related projects could result in impacts related to mineral resources, because the Project would not result in any impacts related to mineral resources, the Project would not have the potential to contribute to any cumulative impacts.

12. NOISE

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 With Mitigation Incorporated. The noise modeling results are included in Appendix F.

Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. Table IV-20 provides examples of A-weighted noise levels from common sources.

Table IV-20
A-Weighted Decibel Scale

Typical A-Weighted Sound Levels	Sound Level (dBA, L_{eq})
Threshold of Pain	140
Jet Takeoff at 100 Meters	125
Jackhammer at 15 Meters	95
Heavy Diesel Truck at 15 Meters	85
Conversation at 1 Meter	60
Soft Whisper at 2 Meters	35
Source: United States Occupational Safety & Health Administration, Noise and Hearing Conversation Technical Manual, 1999.	

Noise Definitions

Community Noise Equivalent Level (CNEL): CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 dBA higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night from 10:00 p.m. to 7:00 a.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level (L_{eq}). L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise that has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Effects of Noise

The degree to which noise can impact the environment ranges from levels that interfere with speech and sleep to levels that cause adverse health effects. Human response to noise is subjective and can vary from

person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

Audible Noise Changes

Small perceptible changes in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely cause some community reaction. A 10-dBA increase is heard as a doubling in loudness and would cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of the distance.

Noise is most audible when traveling by direct line-of-sight.[59] Barriers, such as walls or buildings that break the line-of-sight between the source and the receiver can greatly reduce noise levels from the source since sound can only reach the receiver by diffraction. Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

REGULATORY SETTING

Federal

Noise Standards

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project, which is a private development in the City. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

[59] *Line-of-sight is a visual path between the noise source and the noise receptor.*

State

Noise Standards

The California Department of Health Services (the "DHS") has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown on Table IV-21. In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

City

The LAMC provides two types of noise standards that are relevant to this analysis: 1) construction noise standards, and 2) general noise ordinance standards. The construction noise standards apply only to construction activities, while the general noise ordinance standards apply to noise generated by land use activities.

Construction Noise Standards

The City of Los Angeles Municipal Code (LAMC) establishes noise regulations for both short-term construction activities and long-term project operations. The LAMC limits noise from any powered equipment or powered hand tool in a residential zone (or within 500 feet) at a distance of 50 feet between 7:00 a.m. and 10:00 p.m. to:

- 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;
- 75 dBA for powered equipment of 20 horse-power or less intended for infrequent use in residential areas; including chain saws, log chippers and powered hand tools; and
- 65 dBA for powered equipment intended for repetitive use in residential areas; including lawn mowers, backpack blowers, small lawn and garden tools.[60]

[60] *City of Los Angeles, Municipal Code Chapter XI-Noise Regulation (Section 112.05), 1986.*

Table IV-21
Community Noise Exposure (CNEL)

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
[c] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, State of California Genera Plan Guidelines, October 2003 (in coordination with the California Department of Health Services); City of Los Angeles, General Plan Noise Element, adopted February 1999.

However, these noise limits do not apply where compliance is deemed technically infeasible. Specifically, such activities are allowed when it can be demonstrated that compliance is not possible "despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment."[61]

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[61] *Ibid.*

Section 41.40 of the LAMC prohibits construction activity from occurring between 9:00 p.m. and 7:00 a.m. Monday through Friday, and between 6:00 p.m. and 8:00 a.m. on Saturday.[62] This is intended to protect persons occupying sleeping quarters in any hotel, apartment, or other place of residence. Construction noise intruding onto property zoned for manufacturing or industrial uses is exempt from these standards.

The City released the *L.A. CEQA Thresholds Guide* in 2006 to provide further guidance determining the significance of noise impacts. According to the Guide, a project's construction noise levels would, under normal circumstances, have a significant impact if:

- Construction activities lasting more than one day exceed existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use;
- Construction activities lasting more than 10 days in a three-month period exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use; or
- Construction activities exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or anytime on Sunday.[63]

Additionally, a project would, under normal circumstances, have a significant impact on community noise levels if:

- The Project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" categories recommended by the land-use compatibility guidelines set forth in the State of California's 2003 General Plan; or
- The Project causes the ambient noise level measured at the property line of affected uses to increase 5 dBA or greater.[64]

General Noise Ordinance Standards

LAMC Chapter XI, "Noise Regulation," regulates noise from non-transportation noise sources such as commercial or industrial operations, mechanical equipment or residential activities. Although these regulations do not apply to vehicles operating on public rights-of-way, the regulations do apply to noise generated by vehicles on private property, such as truck operations at commercial or industrial facilities. The exact noise standards vary depending on the type of noise source, but the allowable noise levels are generally determined relative to the existing ambient noise levels at the affected location. LAMC Section

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[62] *City of Los Angeles, Municipal Code Chapter IV-Public Welfare (Section 41.40), 1984.*

[63] *City of Los Angeles L.A. CEQA Thresholds Guide, 2006, page 1.1-3.*

[64] *City of Los Angeles L.A. CEQA Thresholds Guide, 2006, page 1.2-3.*

111.01 (a) defines the ambient noise as "the composite of noise from all sources near and far in a given environment, exclusive of occasional and transient intrusive noise sources and of the particular noise source or sources to be measured. Ambient noise shall be averaged over a period of at least 15 minutes..." LAMC Section 111.03 provides minimum ambient noise levels for various land uses, as described on Table IV-22. In the event that the actual measured ambient level at a subject location is lower than that provided in the table, the level in the table shall be assumed.

Table IV-22
City of Los Angeles Minimum Ambient Noise Levels

Zone	Allowable Average Noise Level (L_{eq})	
	Daytime (7 am – 10 pm)	Nighttime (10 pm – 7 am)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50 dB(A)	40 dB(A)
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60 dB(A)	55 dB(A)
M1, MR1, and MR2	60 dB(A)	55 dB(A)
M2 and M3	65 dB(A)	65 dB(A)

Source: LAMC, Section 111.03.

At the boundary line between two zones, the allowable noise level of the quieter zone shall be used. The allowable noise levels are then adjusted if certain conditions apply to the alleged offensive noise, as follows:

- For steady tone noise with an audible fundamental frequency or overtones (except for noise emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to September 8, 1986) – reduce allowable noise level by 5 dB(A).
- For repeated impulsive noise – reduce allowable noise level by 5 dB(A).
- For noise occurring less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 AM and 10:00 PM – increase allowable noise level by 5 dB(A).

Additionally, the LAMC states that a noise level increase of 5 dBA or more over the existing average ambient noise level at an adjacent property line is considered a noise violation.[65] This standard applies to sources such as consumer electronics, HVAC systems, powered equipment intended for repeated use in residential areas, and motor vehicles driven onsite. The LAMC also prohibits use of air conditioning, refrigeration, heating, pumping, or filtering equipment that increases ambient noise levels by 5 dBA or more.[66] It also limits noise increases from motor driven vehicles on private property to no more than 5

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[65] *City of Los Angeles, Municipal Code Chapter XI-Noise Regulation (Section 112.04), 1986.*

[66] *City of Los Angeles, Municipal Code Chapter XI-Noise Regulation (Section 112.02), 1982.*

dBA at adjacent residential properties.[67] Finally, between 10:00 p.m. and 7:00 a.m., the City prohibits the loading or unloading of vehicles, or use of dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound and/or raucous or unnecessary noise within 200 feet of any residential building.[68]

The City's noise ordinance is not explicit in defining the length of time over which an average noise level should be assessed. However, based on the noted reference to "60 consecutive minutes," above, it is concluded that the one-hour L_{eq} metric should be used. Regarding the location at which the noise measurements should be taken, the LAMC states that "except when impractical, the microphone shall be located four to five feet above the ground and ten feet or more from the nearest reflective surface. However, in those cases where another elevation is deemed appropriated, the latter shall be utilized."

Project Impacts

Construction Noise

The Project site is surrounded by manufacturing land uses to the south and west, residential land uses to the east, and a church and school to the north. According to the L.A. CEQA Thresholds Guide, land uses sensitive to noise include residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. The following receptors were chosen specifically for detailed construction noise impact analysis given their potential sensitivities to noise and their proximity to the Project site:

Mason Avenue and Lassen Street Residences: These residences are located near the northeast corner of Mason Avenue and Lassen Street.

Mason Avenue Residences: These residences are located approximately 110 feet east of the Project site along northbound Mason Avenue.

St. John Eudes Church: This church is located at 9901 Mason Avenue. The receptor also consists of residences for clergy members.

St. John Eudes School: Classrooms for this school are located north of the Project and across a parking lot that doubles as a recreational area for outdoor sports.

Valle Verde Courtyard Mobile Home Park: This receptor is located west of the Project site at 20652 Lassen Street. It consists of residences and an outdoor pool area near the intersection of Lassen Street and Lurline Avenue.

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[67] *Ibid.*

[68] *City of Los Angeles, Municipal Code Chapter XI-Noise Regulation (Section 112.03), 1982.*

DKA Planning took short-term noise readings at locations surrounding the Project site to help determine these receptors' ambient noise conditions. For all noise monitoring locations, ambient noise was primarily attributable to vehicle traffic along Mason Avenue and Lassen Street.

For St. John Eudes School, its 54.9 dBA L_{eq} ambient noise level was estimated with respect to the distance between its classrooms and Lassen Street. This estimation was utilized to more accurately account for this receptor's setback from Lassen Street, its primary source of ambient noise. For example, St. John Eudes School is located over 200 feet from Lassen Street; a noise measurement taken along Lassen Street and directly applied to this receptor would likely exaggerate its true ambient noise level.

With regard to Valle Verde Courtyard Mobile Home Park, the L.A. CEQA Thresholds Guide allows a "Presumed Ambient Noise Level" as set forth in LAMC Section 111.03 to be utilized in lieu of a field-measured ambient noise level for the purposes of CEQA analysis. While it is typically preferable to utilize a field-measured level, it was not possible to do so in this instance. First, Valle Verde Courtyard Mobile Home Park is private property, and access within the site is limited to private roads. Second, noise measurements taken along Lassen Street or Lurline Avenue, for example, would not accurately represent the ambient noise conditions of Valle Verde Courtyard residences located nearest to the Project site (i.e., those along the mobile home park's eastern boundary). Valle Verde Courtyard Mobile Home Park is currently zoned RMP-1. Though Section 111.03 does not specifically refer to an RMP zoning designation, it is abundantly clear that the "Presumed Ambient Noise Level" of residential zones shall be 50 dBA during daytime hours (between 7:00 A.M. and 10:00 P.M.). This presumed level is consistent with the daytime ambient noise levels of neighborhoods with mainly residential traffic.

Ambient noise levels for all Project receptors are shown on Table IV-23.

During all construction phases, noise-generating activities could occur at the Project site between the hours of 7:00 A.M. and 9:00 P.M. Monday through Friday, in accordance with Section 41.40(a) of the LAMC. On-site activities could include the use of heavy equipment such as excavators and loaders, as well as smaller equipment such as saws, hammers, and pneumatic tools. Off-site secondary noises could be generated by sources such as construction worker vehicles, vendor deliveries, and haul trucks.

Table IV-23
Existing Ambient Noise Levels

Sensitive Receptor	Existing Ambient Noise Level (dBA L_{eq})
Mason Avenue and Lassen Street Residences	74.1
Mason Avenue Residences	71.4
St. John Eudes Church	72.0
St. John Eudes School	54.9
Valle Verde Courtyard Mobile Home Park	50.0
Source: DKA Planning, 2016	

Noises from demolition and grading activities are typically the foremost concern when evaluating a project's construction noise impacts, as these activities often require the use of heavy-duty, diesel-powered earthmoving equipment. The types of heavy equipment required for these activities may include excavators, bulldozers, front-end loaders, graders, backhoes, and scrapers.

For this Project, demolition and grading noise impacts were modeled using the noise reference levels of excavators and front-end loaders, as these vehicles would be utilized extensively to demolish and grade for the Project. Excavators can produce average peak noise levels of 81 dBA at a reference distance of 50 feet; front-end loaders, 79 dBA.[69] Compounding their noise impacts is the fact that these vehicles commonly operate in tandem. Excavators remove soils and demolished materials, and front-end loaders transport this matter to on-site stockpiles or haul trucks for off-site export. As a result, excavators and front-end loaders have the greatest potential to cause sustained and significant noise impacts at nearby receptors. The impacts of other construction equipment and vehicles would be neither as loud nor as extensive over the duration of the Project's demolition, grading, and other phases. Therefore, this analysis examines a conservative scenario; the noise impacts of all other construction equipment and phases would not exceed the impacts analyzed here. The projected noise impact from excavators and front-end loaders are shown on Table IV-24 and summarized below.

Mason Avenue and Lassen Street Residences: These residences could experience exterior noise levels of up to 75.1 dBA as a result of the Project's demolition and grading activities, an increase of only 1.0 dBA over existing ambient noise conditions. This would not exceed the 5 dBA noise increase threshold considered to be a significant impact by the L.A. CEQA Thresholds Guide for construction activities lasting more than ten days in a three month period.

Mason Avenue Residences: These residences could experience exterior noise levels of up to 74.9 dBA as a result of the Project's demolition and grading activities, an increase of 3.5 dBA over existing ambient noise conditions. This also would not exceed the 5 dBA noise increase threshold considered to be a significant impact by the L.A. CEQA Thresholds Guide for construction activities lasting more than ten days in a three month period.

St. John Eudes Church: This receptor, including the residences of its clergy, could experience exterior noise levels of up to 74.6 dBA as a result of the Project's demolition and grading activities, an increase of 2.6 dBA over existing ambient noise conditions. This would not exceed the 5 dBA noise increase threshold considered to be a significant impact by the L.A. CEQA Thresholds Guide for construction activities lasting more than ten days in a three month period.

St. John Eudes School: This school's classrooms could experience exterior noise levels of up to 63.4 dBA as a result of the Project's demolition and grading activities, an increase of 8.5 dBA

[69] *Federal Highway Administration, Construction Noise Handbook, 2006.*

over existing ambient noise conditions. This would exceed the 5 dBA noise increase threshold considered to be a significant impact by the L.A. CEQA Thresholds Guide for construction activities lasting more than ten days in a three month period.

Valle Verde Courtyard Mobile Home Park: Residences at this receptor nearest to the Project site are projected to experience exterior noise levels of up to 54.3 dBA as a result of the Project's demolition and grading activities, an increase of 4.3 dBA over their presumed existing ambient noise conditions. This would not exceed the 5 dBA noise increase threshold considered to be a significant impact by the L.A. CEQA Thresholds Guide for construction activities lasting more than ten days in a three month period.

Table IV-24
Construction Noise Levels – Without Mitigation

Sensitive Receptor	Distance from Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, L_{eq})	New Ambient (dBA, L_{eq})	Increase
Mason Ave. & Lassen St. Residences	175	68.3	74.1	75.1	1.0
Mason Avenue Residences	110	72.3	71.4	74.9	3.5
St. John Eudes Church	125	71.2	72.0	74.6	2.6
St. John Eudes School	330	62.8	54.9	63.4	8.5
Valle Verde Courtyard Mobile Home Park	195	52.3	50	54.3	4.3

Source: DKA Planning, 2016.

As discussed above, St. John Eudes School could experience construction-related noise increases in excess of 5 dBA. However, these noise increases could be reduced to below 5 dBA by the use of temporary noise barriers and other means. Additionally, though no residential receptors would be projected to experience construction noise levels above 75 dBA, construction equipment source noise levels for excavators and front-end loaders would exceed LAMC Section 112.05's 75 dBA limit for powered construction equipment operating within 500 feet of residential zones. This impact could also be reduced by the use of temporary noise barriers and other measures. As a result, the Project's construction noise impact would be considered significant but mitigable. Mitigation Measures 12-1 and 12-2 are required to reduce the Project's contribution to off-site increases in noise levels and limit construction source noise levels to below 75 dBA.

With regard to off-site construction-related noise impacts, demolition and grading activities would necessitate an estimated 28 haul trips per workday to export demolished materials and excavated soils from the Project site to regional landfills. While this vehicle activity would marginally increase ambient noise levels along the haul route, it would not be expected to significantly increase ambient noise levels by 5 dBA or greater at any noise sensitive land uses. According to the L.A. CEQA Thresholds Guide, a 3 dBA increase in roadway noise levels requires an approximate doubling of roadway traffic volume,

assuming that travel speeds and fleet mix remain constant. Though the addition of haul trucks would alter the fleet mix of the Project haul route, their minimal addition to local roadways would not nearly double those roads' traffic volumes, let along augment their traffic to levels capable of producing 5 dBA ambient noise increases. As a result, off-site construction noise impacts related to haul trips would be considered less than significant.

Operational Noise

During Project operations, the development would produce both direct noise impacts on the site from residential-related activities, as well as indirect noise impacts from vehicles traveling on local roads to access the site. The direct impacts would include the following:

Mechanical Equipment: Regulatory compliance with LAMC Sec.112.02 would ultimately ensure that noises from sources such as heating, air conditioning, and ventilation systems not increase ambient noise levels at neighboring occupied properties by more than 5 dBA. Given this regulation, ambient noise levels, and the relatively quiet operation of modern HVAC systems, these on-site noise sources would not be capable of causing the ambient noise levels of nearby uses to increase by 3 dBA CNEL to or within their respective L.A. CEQA Thresholds Guide's "normally unacceptable" or "clearly unacceptable" noise categories, or by 5 dBA or greater overall. Noises from pool pumping and filtering equipment would not be audible at nearby receptors. The pool area would be shielded on all sides by proposed and existing structures.

Retail Uses: The Project's retail uses would be internal. Noises from their operations would be inaudible at off-site receptors. Periodic sources of noise, such as deliveries, would not be capable of creating sustained and significant noise impacts at nearby residential, school, and church receptors. Loading areas would be oriented away from these receptors.

Restaurants: Three of the proposed restaurants would contain drive-thru lanes. Drive-thru related noises typically include vehicle idling, car stereos, and noises from ordering speakers. Because these restaurants would be located along Lassen Street and Mason Avenue, it is unlikely that drive-thru related noises would substantially elevate ambient noise levels at any nearby receptors. High existing ambient noise levels along Lassen Street and Mason Avenue would ensure that receptors not experience noise increases of 3 dBA or greater to or within their respective "Normally Unacceptable" or "Clearly Unacceptable" noise categories, or 5 dBA overall. Nevertheless, Project Design Feature X-1 is recommended to face the Project's drive-thru speakers away from receptors along Lassen Street and Mason Avenue. This is to ensure that noises from these speakers would not be audible at receptors, especially during night time hours when traffic-related ambient noise levels in the area are lower.

Auto-Related Activities: The Project's existing use consists of surface parking. Though the Project would have an expanded surface parking lot, auto-related noises (e.g., doors slamming, engines starting, alarms, etc.) would not significantly raise ambient noise levels at nearby

receptors. Auto-related noises are intermittent and do not substantially contribute to sustained increases in ambient noise. Furthermore, the Project's peak hours of usage would coincide with periods of elevated traffic, and therefore traffic-related ambient noise levels, along Mason Avenue and Lassen Street.

The impact potential of these on-site operational noise sources would be less than significant.

The majority of the Project's operational noise impacts would be from off-site mobile sources associated with its estimated 3,715 net new daily trips.[70] The noise impact of these vehicle trips was modeled using the Federal Highway Administration's (FHWA) Traffic Noise Model 2.5 (TNM 2.5). This noise prediction software uses traffic volumes, vehicle mix, average speeds, roadway geometry, and other inputs to calculate average noise levels in dBA along roadway segments. For this analysis, an existing year (2016) no project scenario was compared to an existing year (2016) with project scenario. Tables 12-6 and 12-7 show the Project's projected contributions to ambient noise level increases along modeled roadway segments. As no roadway segment would experience a noise increase of 3 dBA to or within its respective "Normally Unacceptable" or "Clearly Unacceptable" noise category, or a 5 dBA or greater noise increase overall, the Project's off-site operational noise impact would be less than significant.

Table IV-25
Existing and Existing With Project Scenarios
Estimated AM Peak-Hour Mobile Source Noise Levels

	Estimated dBA, CNEL			
Roadway Segment	Existing (2016)	Existing With Project (2016)	Project Change	Significant Impact?
1. N/B Mason Ave., S of Lassen St.	72.3	72.4	0.1	No
2. N/B Mason Ave., N of Lassen St.	72.0	72.1	0.1	No
3. S/B Mason Ave., N of Lassen St.	72.6	72.6	0.0	No
4. St. John Eudes – Church	74.6	74.6	0.0	No
5. St. John Eudes – Classrooms	60.9	61.0	0.1	No
6. E/B Lassen St., W of Mason Ave.	69.3	69.5	0.2	No
7. Congregational Church of Chatsworth	71.1	71.3	0.2	No
8. E/B Lassen St., E of Mason Ave.	71.1	71.2	0.1	No
9. W/B Lassen St., E of Mason Ave.	70.8	70.9	0.1	No
10. W/B Lassen St., W of Mason Ave.	62.2	62.2	0.0	No

Source: DKA Planning, 2016.

[70] *Linscott, Law & Greenspan Engineers, SWC Mason/Lassen Project, October 2016.*

Table IV-26
Existing and Existing With Project Scenarios
Estimated PM Peak-Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, CNEL			
	Existing (2016)	Existing With Project (2016)	Project Change	Significant Impact?
1. N/B Mason Ave., S of Lassen St.	72.0	72.1	0.1	No
2. N/B Mason Ave., N of Lassen St.	72.7	72.7	0.0	No
3. S/B Mason Ave., N of Lassen St.	71.7	71.8	0.1	No
4. St. John Eudes – Church	74.0	74.0	0.0	No
5. St. John Eudes – Classrooms	60.7	60.8	0.1	No
6. E/B Lassen St., W of Mason Ave.	69.5	69.5	0.0	No
7. Congregational Church of Chatsworth	71.6	71.7	0.1	No
8. E/B Lassen St., E of Mason Ave.	71.6	71.7	0.1	No
9. W/B Lassen St., E of Mason Ave.	70.7	70.8	0.1	No
10. W/B Lassen St., W of Mason Ave.	61.7	61.7	0.0	No

Source: DKA Planning, 2016.

Table IV-27
Future Estimated AM Peak-Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, CNEL			
	Existing (2016)	Future With Project (2018)	Project Change	Significant Impact?
1. N/B Mason Ave., S of Lassen St.	72.3	72.6	0.3	No
2. N/B Mason Ave., N of Lassen St.	72.0	72.4	0.4	No
3. S/B Mason Ave., N of Lassen St.	72.6	72.9	0.3	No
4. St. John Eudes – Church	74.6	74.9	0.3	No
5. St. John Eudes – Classrooms	60.9	61.3	0.4	No
6. E/B Lassen St., W of Mason Ave.	69.3	69.8	0.5	No
7. Congregational Church of Chatsworth	71.1	71.6	0.5	No
8. E/B Lassen St., E of Mason Ave.	71.1	71.5	0.4	No
9. W/B Lassen St., E of Mason Ave.	70.8	71.2	0.4	No
10. W/B Lassen St., W of Mason Ave.	62.2	62.5	0.3	No

Source: DKA Planning, 2016.

Table IV-28
Future Estimated PM Peak-Hour Mobile Source Noise Levels

Roadway Segment	Estimated dBA, CNEL			
	Existing (2016)	Future With Project (2018)	Project Change	Significant Impact?
1. N/B Mason Ave., S of Lassen St.	72.0	72.4	0.4	No
2. N/B Mason Ave., N of Lassen St.	72.7	73.1	0.4	No
3. S/B Mason Ave., N of Lassen St.	71.7	72.1	0.4	No
4. St. John Eudes – Church	74.0	74.3	0.3	No
5. St. John Eudes – Classrooms	60.7	61.2	0.5	No
6. E/B Lassen St., W of Mason Ave.	69.5	69.9	0.4	No
7. Congregational Church of Chatsworth	71.6	72.0	0.4	No
8. E/B Lassen St., E of Mason Ave.	71.6	72.0	0.4	No
9. W/B Lassen St., E of Mason Ave.	70.7	71.2	0.5	No
10. W/B Lassen St., W of Mason Ave.	61.7	62.2	0.5	No

Source: DKA Planning, 2016.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The analysis of Project impacts related to noise is based on noise modeling results prepared by DKA Planning, Inc. (refer to Appendix F).

Characteristics of Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Unlike noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible. Common sources of vibration include trains, buses, and construction activities.

Vibration Definitions

The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

Effects of Vibration

High levels of vibration may cause physical personal injury or damage to buildings. However, ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that may affect concentration or disturb sleep.

Perceptible Vibration Changes

Unlike noise, ground-borne vibration is not an environmental issue that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower, well below the threshold of perception for humans, which is around 65 RMS. Most perceptible indoor vibration is caused by sources within buildings, such as movement of people or slamming of doors. Typical outdoor sources of ground-borne vibration are construction equipment, trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is typically not perceptible.

Applicable Regulations

For the evaluation of construction-related vibration impacts, state standards set by the California Department of Transportation (Caltrans) are used given the absence of Federal, County, and City standards specific to construction activities. In 2013, Caltrans published the Transportation and Construction Vibration Guidance Manual to aid in the estimation and analysis of vibration impacts. Typically, potential building and structural damages are the foremost concern when evaluating the impacts of construction-related vibrations. Table 12-29 summarizes Caltrans' vibration guidelines for building and structural damage.

Table IV-29
Building Damage Vibration Thresholds (PPV)

Structure and Condition	Significance Thresholds (in/sec PPV)	
	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

Source: California Department of Transportation, 2013.

Project Impacts

As discussed earlier, construction of the proposed Project would require equipment such as excavators and loaders. These types of heavy-duty vehicles can produce peak vibration velocities of up to 0.089

inches per second at a distance of 25 feet.[71] Auger drilling for piles can produce similar ground velocities. Table 12-9 shows the Project's projected construction vibration impacts at the nearest off-site structures. No receptor would experience potentially damaging levels of ground-borne vibration from the Project's construction activities. As a result, the Project's construction vibration impacts would be less than significant.

Table IV-30
Building Damage Vibration Levels at Off-Site Structures

Off-Site Structures	Distance to Project Site (ft.)	Estimated PPV (in/sec)	Structural Significance Threshold (in/sec)	Significant?
Mason Avenue Buildings and Homes	110	0.020	0.5	No
St. John Eudes Church	125	0.018	0.5	No
Storage Etc... Buildings	10	0.223	0.5	No
9721 Mason Avenue Commercial Building	30	0.074	0.5	No
Source: DKA Planning 2016.				

During Project operations, there would be no significant stationary sources of ground-borne vibration, such as heavy equipment or industrial operations. Operational ground-borne vibration in the Project's vicinity would be generated by its related vehicle travel on local roadways. As previously discussed, road vehicles rarely create vibration levels perceptible to humans unless road surfaces are poorly maintained and have potholes or bumps. Project-related traffic would expose nearby land uses and other sensitive receptors to vibrations far below levels associated with human annoyance or land-use disruption. As a result, the Project's long-term vibration impacts would be less than significant.

c) Would the project result in a substantial permanent increase in ambient noise levels in the Project site vicinity above levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. As discussed in response to Checklist Question 12a, with implementation of mitigation, the Project would not generate a substantial permanent increase in noise in excess of City noise standards. Therefore, Project impacts related to permanent noise increase would be less than significant.

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[71] *Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.*

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

Less Than Significant Impact With Mitigation Incorporated. As discussed in response to Checklist Question 12a, with mitigation, the Project would not result in a substantial temporary or periodic increase in ambient noise levels in excess of City noise standards. Therefore, Project impacts related to temporary or periodic noise increase would be less than significant.

e) For a project 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, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels and no impact would occur.

f) For a project 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. The Project site is not located in the vicinity of a private airstrip. Therefore, the Project would not expose people residing or working in the Project area to excessive noise levels and no impact would occur.

Mitigation Measures (Noise)

To ensure that the Project's construction noise impacts would be less than significant, the following mitigation measures are required (refer to Table IV-31):

12-1: All powered construction equipment shall be equipped with exhaust mufflers or other suitable noise reduction devices capable of achieving a sound attenuation of at least 3 dBA. On-site power generators shall either be plug-in electric or solar powered.

12-2: Temporary sound barriers capable of achieving a sound attenuation of at least 5 dBA shall be erected along the Project's northern, eastern, and southern boundaries.

Cumulative Impacts

None of the related projects are in close proximity to the Project site. As such, distance and intervening buildings would attenuate noise generated by construction and operational activities associated with the related projects at the Project site (and vice versa) and would not result in any significant cumulative noise impacts.

Table IV-31
Construction Noise Levels – With Mitigation

Sensitive Receptor	Distance from Site (feet)	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, L_{eq})	New Ambient (dBA, L_{eq})	Increase
Mason Ave. & Lassen St. Residences	175	60.3	74.1	74.3	0.2
Mason Avenue Residences	110	64.3	71.4	72.2	0.8
St. John Eudes Church	125	63.2	72.0	72.5	0.5
St. John Eudes School	330	54.8	54.9	57.8	2.9
Valle Verde Courtyard Mobile Home Park	195	49.3	50.0	52.7	2.7

Source: DKA Planning, 2016.

13. POPULATION AND HOUSING

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project would employ approximately 253 people.[72] The types of jobs that would be made available by the Project could be filled by people already living in the Project area and surrounding communities. The Project would not create such an increase in employment that would cause a substantial number of new people to move to the Project area and surrounding communities to fill the employment positions. Also, the Project does not include the development of housing and would be served by existing roadways and utility infrastructure. For these reasons, the Project would not induce substantial population growth, and impacts related to this issue would be less than significant.

[72] *Employment generation for the Project is estimated based on generation rates provided in the Los Angeles Unified School District 2012 Developer Fee Justification Study, February 9, 2012, Table 11, Page 14.*

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. One vacant single-family dwelling will be demolished as a part of the project. The demolition of one vacant unit will not displace substantial numbers of existing housing. Therefore no impact will result.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. One vacant single-family dwelling will be demolished as a part of the project. The demolition of one vacant unit will not displace substantial numbers of existing people. Therefore no impact will result.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could result in housing and population growth. However, as discussed previously, the Project's population growth would be consistent with the anticipated growth for the Project area and in the General Plan. The Project would not create unplanned growth, and impacts related to population and housing would be less than significant. As such, regardless of whether the related projects would result in unplanned growth, the Project would not have the potential to contribute to any potential cumulative impact.

14. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, 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 objective for any of the following public services:

(i) Fire protection?

Less Than Significant Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses, increasing the need for fire protection services at the Project site. The factors that the Los Angeles Fire Department (LAFD) considers in determining whether fire protection services for a project is adequate include: (1) maximum response distance for the land uses proposed; (2) compliance with emergency access requirements; (3)

compliance with fire-flow requirements; and (4) compliance with fire hydrant placement.[73] The LAFD fire stations that serve the Project site are shown on Table IV-32. All ingress/egress and emergency access associated with the Project would be designed and constructed in conformance to all applicable City Building and Safety Department and LAFD standards and requirements for design and construction. Therefore, the Project would not result in any significant impacts related to emergency access. Final fire-flow demands, fire hydrant placement, and other fire protection equipment would be determined for the Project during LAFD's plan check process. Through compliance with these mandatory requirements, Project impacts related to fire protection services would be less than significant.

Table IV-32
Fire Stations Near the Project Site

Fire Station	Distance to Project Site
Fire Station 70 9861 Reseda Boulevard	2.5 miles
Fire Station 96 21800 Marilla Street	1.5 miles
Fire Station 104 8349 Winnetka Avenue	2.5 miles
Fire Station 107 20225 Devonshire Street	0.8 mile
Source: http://www.lafd.org	

Cumulative Impacts

Implementation of the related projects on Table IV-40 could result in a net increase in the number of residents and employees in the Project area and could further increase the demand for fire protection services. Cumulative development requires the LAFD to continually evaluate the need for new or physically altered facilities in order to maintain adequate service ratios. Similar to the proposed Project, the related projects would be subject to the Fire Code and other applicable regulations of the LAMC including, but not limited to, automatic fire sprinkler systems for high-rise buildings and/or residential projects located farther than 1.5 miles from the nearest LAFD Engine or Truck Company to compensate for additional response time, and other recommendations made by the LAFD to ensure fire protection safety. Through the process of compliance, the ability of the LAFD to provide adequate facilities to accommodate future growth and maintain acceptable levels of service would be ensured. Furthermore, the increased demands for additional LAFD staffing, equipment, and facilities would be funded via existing mechanisms (e.g., property taxes and government funding) to which the Project and related projects would contribute. Therefore, cumulative impacts related to fire protection services would be less than significant.

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[73] *L.A. CEQA Thresholds Guide, City of Los Angeles, 2006.*

(ii) Police protection?

Less Than Significant Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses, increasing the need for police protection services. However, in accordance with the City's requirements, the Project developer would be required to refer to "Design Out Crime Guidelines: Crime Prevention Through Environmental Design," published by the LAPD. Contact the Community Relations Division, located at 100 W. 1st Street, #250, Los Angeles, CA 90012; (213) 486-6000. The Project would include standard security measures such as adequate security lighting, controlled building access, and secure parking facilities. These measures for the Project shall be approved by the LAPD prior to the issuance of building permits. Through compliance with the mandatory requirements of the LAPD, Project impacts related to police protection services would be less than significant.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could result in a net increase in the number of residents and employees in the Project area and could further increase the demand for police protection services. Cumulative development requires the LAPD to continually evaluate the need for new or physically altered facilities in order to maintain adequate service ratios. Similar to the proposed Project, the related projects would be subject to the site plan review, recommendations of the LAPD related to crime prevention features, and other applicable regulations of the LAMC. Through the process of compliance, the ability of the LAPD to provide adequate facilities to accommodate future growth and maintain acceptable levels of service would be ensured Furthermore, the increased demands for additional LAPD staffing, equipment, and facilities would be funded via existing mechanisms (e.g., property taxes and government funding) to which the Project and related projects would contribute. Therefore, cumulative impacts related to police protection services would be less than significant.

(iii) Schools?

Less Than Significant Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project does not include development of any residential population that would increase the need for school services. The Project would employ approximately 253 people. The types of jobs that would be made available by the Project could be filled by people already living in the Project area and surrounding communities. The Project would not create such an increase in employment that would cause a substantial number of new people (with school-age children) to move to the Project area and surrounding communities to fill the employment positions. Additionally, pursuant to the California Government Code, payment of the school

fees established by the Los Angeles School District (LAUSD) in accordance with existing rules and regulations regarding the calculation and payment of such fees would, by law, provide full and complete mitigation for any potential direct and indirect impacts to schools as a result of the Project. Therefore, Project impacts to school services would be less than significant.

Cumulative Impacts

The related projects listed on Table IV-40 could result in an increase in the number students in the Project area. However, similar to the applicant of the proposed Project, the applicants of all the related projects would be required to pay the applicable school fees to the LAUSD to ensure that no significant impacts to school services would occur. Therefore, cumulative impacts to school services would be less than significant.

(iv) Parks?

No Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project does not include generation of any residential population that would increase the need for parks and recreational facilities. Additionally, the hotel would include a gym and swimming pool for guest use. For these reasons, the Project would not create the need for new or altered parks and recreational facilities. Therefore, no impacts related to parks and recreational facilities would occur as a result of the Project.

Cumulative Impacts

The related projects listed on Table IV-40 could result in an increase demand for parks and recreational services. However, employees generated by the commercial projects and the commercial portions of mixed-use projects on the related projects list would not typically enjoy long periods of time during the workday to visit parks and/or recreational facilities. Therefore these related-project-generated employees would not contribute to the future demand on park and recreational facility services. The extent to which the related residential projects include parks/recreational amenities is unknown. However, the applicants of these projects would be subject to the parkland fees pursuant to LAMC Section 17.12, ensuring that any potential impacts to parks and recreational facilities would be less than significant. As stated previously, the Project would not result in any impacts related to parks and recreational facilities. Therefore, cumulative impacts to park and recreational facilities would be less than significant.

(v) Other public facilities?

Libraries

No Impact. The Project includes infill-development and adaptive reuse of some of the existing buildings on the Project site and redevelopment of the site with a total of approximately 142,607 square feet of a mix land uses, including hotel, fitness center, retail, and restaurant, which would serve an area currently developed with commercial and residential land uses. The Project does not include generation of any residential population that would increase the need for library services. The Project would not create the need for new or altered library facilities. Therefore, no impacts related to library services would occur as a result of the Project.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could increase the demand for library services in the Project area. The related residential projects would be subject to the standards to determine demand for library facilities used by the City, and would likely be required to implement mitigation where applicable. As such, the demand for library services created by these residential projects could be accommodated, and impacts would be less than significant. As stated previously, the Project would not result in any impacts related to library services. Therefore, cumulative impacts to library services would be less than significant.

15. RECREATION

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?

No Impact. Refer to the response to Checklist Question 14(a)(iv) (Parks).

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

No Impact. Refer to the response to Checklist Question 14(a)(iv) **(Parks).**

Cumulative Impacts

Refer to discussion of cumulative impacts related to parks and recreational facilities under response to Checklist Question 14(a)(iv).

16. TRANSPORTATION AND TRAFFIC

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and 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 With Mitigation Incorporated. The analysis below is based on the Traffic Impact Study for the SWC Mason/Lassen Project (the "Traffic Report"), prepared by Linscott, Law & Greenspan, Engineers (LLG) (refer to Appendix G).

Study Area

Upon coordination with Los Angeles Department of Transportation (LADOT) staff, six study intersections were identified for evaluation. All of the intersections were analyzed during both the weekday morning and afternoon peak hours. The six study intersections provide local access to the study area and define the extent of the boundaries for the traffic impact analysis. The traffic analysis study area generally comprises those locations that have the greatest potential to experience significant traffic impacts due to the Project as defined by the LADOT. In the traffic engineering practice, the study area generally includes those intersections that are as follows:

a. Immediately adjacent or in close proximity to the Project site;

b. In the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and

c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

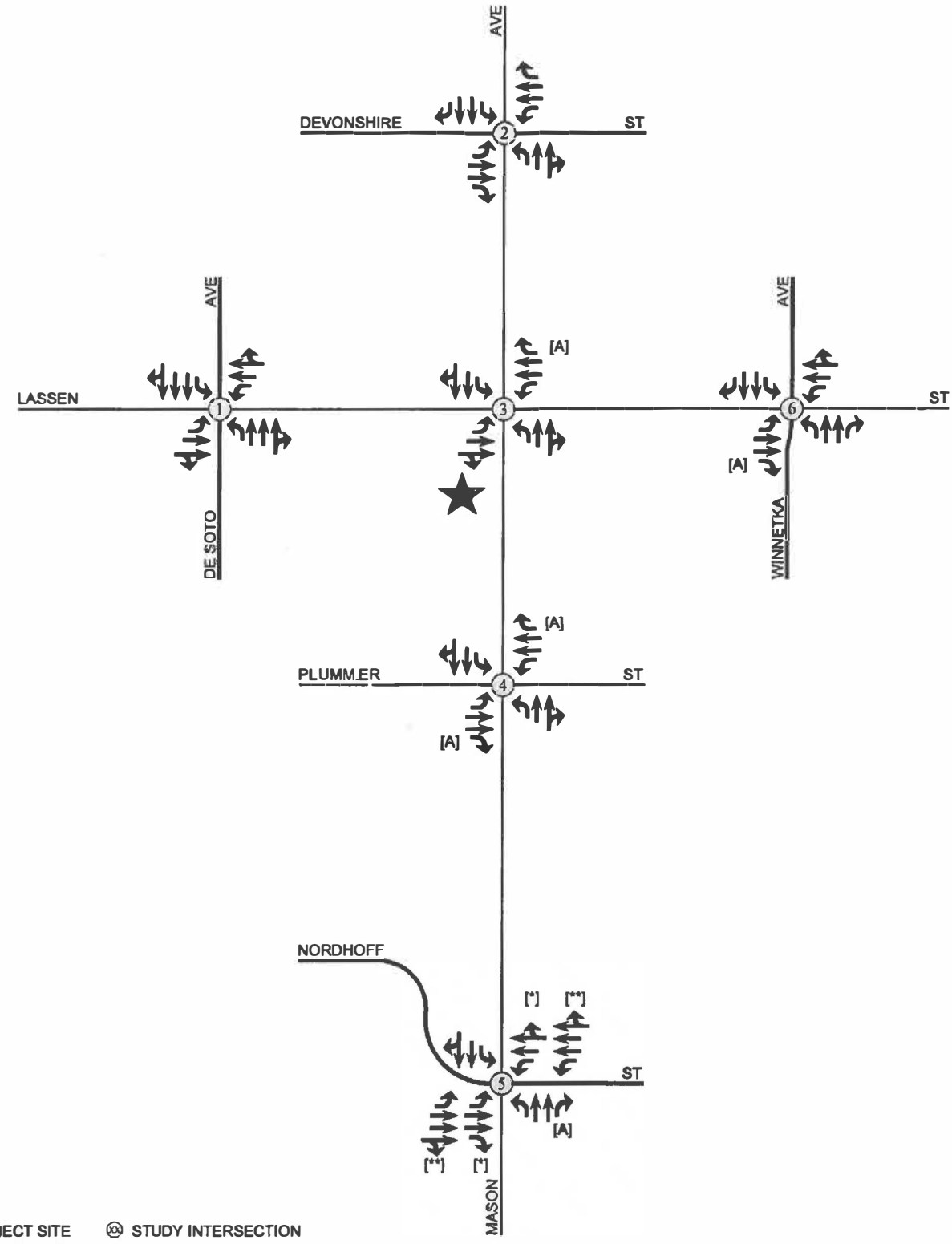
The locations selected for analysis were based on the above criteria, the Project peak-hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

Study Intersections

The six study intersections selected for analysis are currently controlled by traffic signals. The existing lane configurations at the study intersections are displayed on Figure IV-2.

1. De Soto Avenue/Lassen Street

2. Mason Avenue/Devonshire Street



★ PROJECT SITE ⊗ STUDY INTERSECTION

NOTE: ALL STUDY INTERSECTIONS ARE SIGNALIZED

[A] = DEFACTO RIGHT-TURN

[*] = AM PEAK HOUR

[**] = PM PEAK HOUR

Source: Linscott, Law & Greenspan, engineers, 2016.

NORTH

Not to Scale

CAJA Environmental Services, LLC

Figure IV-2
Existing Lane Configurations

3. Mason Avenue/Lassen Street

4. Mason Avenue/Plummer Street

5. Mason Avenue/Nordoff Street

6. Winnetka Avenue/Lassen Street

Methodologies

Based on LADOT's current traffic study policies, this study uses the Critical Movement Analysis (CMA) methodology for the analysis and evaluation of traffic operations at signalized intersections under their jurisdiction, as detailed in Circular Number 212 published by the Transportation Research Board (TRB).[74] This analysis technique describes the operating characteristics of an intersection in terms of the "Level of Service" (LOS) based on intersection traffic volume and other variables such as number and type of signal phasing, lane geometries, and other factors which determine both the quantity of traffic that can move through an intersection (Capacity) and the quality of that traffic flow (LOS).

"Capacity" represents the maximum total hourly volume of vehicles in the critical lanes that has a reasonable expectation of passing through an intersection under prevailing roadway and traffic conditions. Critical lanes are defined generally as those intersection movements or groups of movements which exhibit the highest "per lane" volumes, thus defining the maximum amount of vehicles attempting to travel through the intersection during a specific time period. The capacity of an intersection also varies based on the number of signal phases for the location; more signal phases generally result in more "lost" or "startup" time, as drivers exhibit slight reaction delays when signal indications change from "red" to "green." For the CMA analysis methodology, the intersection capacities associated with the various levels of service are therefore based on the number of traffic signal phases, as shown on Table IV-33.

For the intersection evaluation and transportation planning purposes of this traffic study, LADOT policy requires that the maximum "baseline" capacity of an intersection equate to the value associated with LOS E shown on Table IV-33. This value represents the highest volume of traffic that can be adequately accommodated through urban area intersections without a breakdown in operations, resulting in unstable traffic flows, high levels of congestion, and long delays.

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[74] *Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.*

Table IV-33
CMA Volume Ranges per LOS*

LOS	Maximum Sum of Critical Volumes (VPH) vs. Number of Signal Phases		
	Two Phases	**Three Phases**	**For or More Phases**
A	900	855	825
B	1,050	1,000	965
C	1,200	1,140	1,100
D	1,350	1,275	1,225
E	1,500	1,425	1,375
F	NA	NA	NA

* *For planning applications only. Not appropriate for operations/design applications.*

The "Critical Movement" indices at an intersection are determined by first identifying the sum of the critical lane traffic volumes at the intersection. This total traffic *volume* value, which represents the most critical intersection demand, is then divided by the appropriate intersection *capacity* value for the type of signal control at the intersection, to determine the "CMA value" for the intersection that is roughly equivalent to its volume-to-capacity ratio.

LOS describes the quality of traffic flow through the intersection. LOS A through LOS C exhibit good traffic flow characteristics, with little congestion. LOS D is typically the level for which metropolitan area street systems are designated, and represents the highest level of acceptable congestion and delay. LOS E defines conditions at or near the capacity of an intersection, and is characterized by short-duration stoppages and unstable traffic flows at its upper range. LOS F occurs when a facility is overloaded, and is characterized by stop-and-go traffic with long duration delays. Note that the LOS definitions do not represent a single operating condition, but rather correspond to a range of CMA values, as shown on Table IV-34.

Existing Conditions

Roadway Descriptions

A brief description of the important roadways in the Project vicinity is provided in the following paragraphs.

De Soto Avenue is a north-south oriented roadway that is located west of the project site. Within the project study area, De Soto Avenue is designated as a Major Highway Class II/Boulevard II by the City. Three through travel lanes are generally provided in both directions on De Soto Avenue within the Project study area. Separate exclusive left-turn lanes are provided on De Soto Avenue at major intersections. De Soto Avenue is posted for a 40 miles per hour speed limit in the Project site vicinity.

Table IV-34
LOS Definitions for Signalized Intersections (CMA Method)

LOS	Intersection Capacity Utilization	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Transportation Research Circular No. 212, Interim Materials on Highway Capacity, 1980.

Mason Avenue is a north-south oriented roadway that borders the project site to the east. Within the project study area, Mason Avenue is designated as a Secondary Highway/Avenue II by the City. Two through travel lanes are generally provided in both directions on Mason Avenue within the project study area. Separate exclusive left-turn lanes are provided on Mason Avenue at major intersections. Separate right-turn only lanes are generally provided on Mason Avenue at the Devonshire Street and Nordhoff Street intersections. Mason Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

Winnetka Avenue is a north-south oriented roadway that is located east of the project site. Within the project study area, Winnetka Avenue is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on Winnetka Avenue within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Winnetka Avenue at major intersections. Winnetka Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

Devonshire Street is an east-west oriented roadway that is located north of the project site. Within the project study area, Devonshire Street is designated as a Major Highway Class II/Avenue I by the City. Two through travel lanes are generally provided in both directions on Devonshire Street within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Devonshire Street at major

intersections. Devonshire Street is posted for a 35 miles per hour speed limit west of De Soto Avenue and a 40 miles per hour speed limit east of De Soto Avenue in the project vicinity.

Lassen Street is an east-west oriented roadway that borders the project site to the north. Within the project study area, Lassen Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Lassen Street within the project study area. Separate exclusive left-turn lanes are provided on Lassen Street at major intersections. Separate right-turn only lanes are generally provided on Lassen Street at the Mason Avenue and Winnetka Avenue intersections. Lassen Street is posted for a 40 miles per hour speed limit in the project vicinity.

Plummer Street is an east-west oriented roadway that is located south of the project site. Within the project study area, Plummer Street is designated as a Secondary Highway/Avenue II by the City. Two through travel lanes are generally provided in both directions on Plummer Street within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Plummer Street at major intersections. Plummer Street is posted for a 35 miles per hour speed limit west of De Soto Avenue and a 40 miles per hour speed limit east of De Soto Avenue in the project vicinity.

Nordhoff Street is an east-west oriented roadway that is located south of the project site. Within the project study area, Nordhoff Street is designated as a Major Highway Class II/Boulevard II by the City. Two to three through travel lanes are generally provided in both directions on Nordhoff Street within the project study area. Separate exclusive left-turn lanes are provided on Nordhoff Street at major intersections. Nordhoff Street is posted for a 40 miles per hour speed limit in the project vicinity.

LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short-term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical *v/c* ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical *v/c* ratios by three percent (0.03) for a total of 10 percent (0.10). According to the City, ATSAC/ATCS system upgrades for all seven study intersections have been implemented. As such, the LOS calculations in this traffic analysis reflect a 0.10 adjustment for all analysis scenarios evaluated.

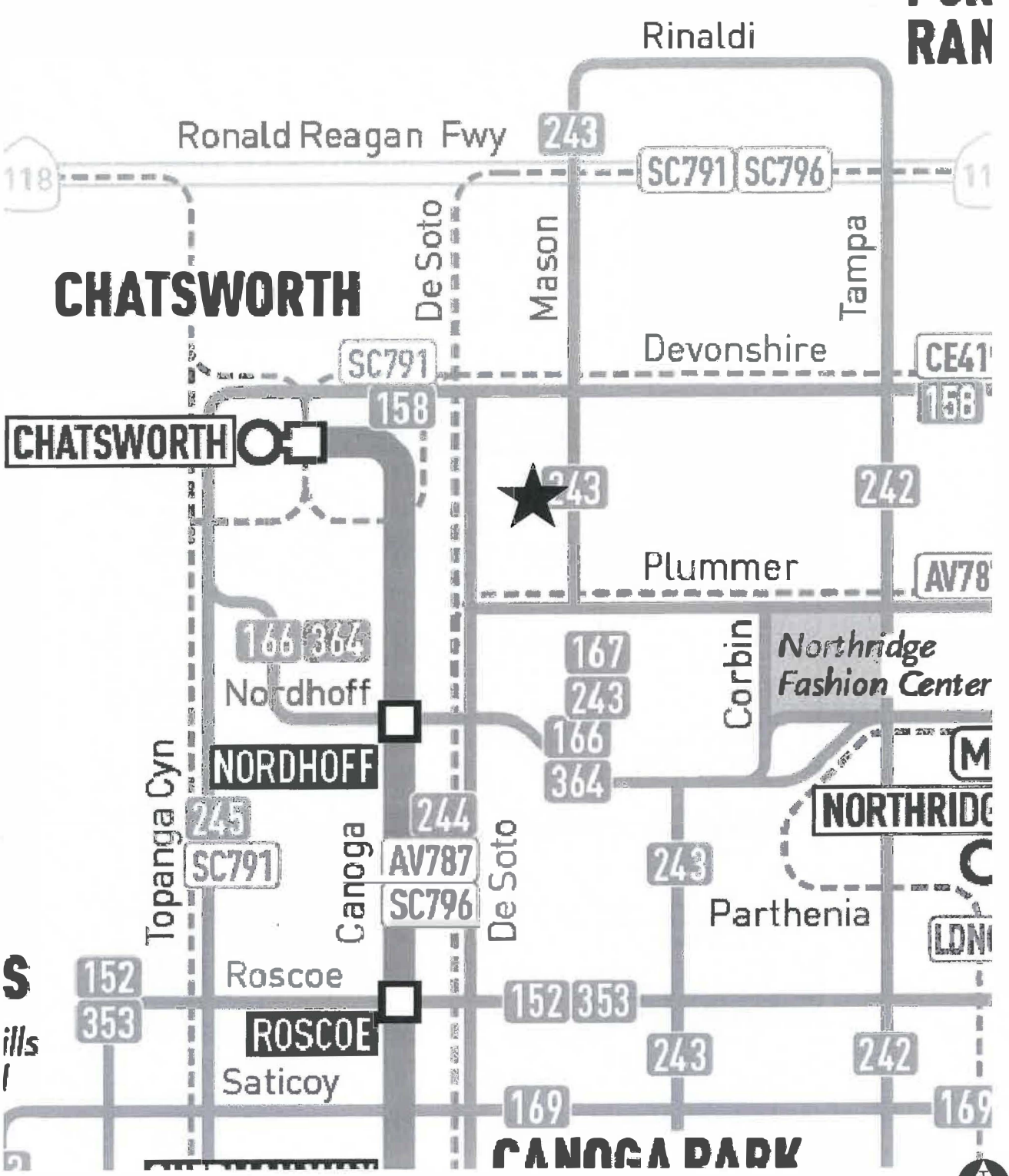
Public Transit Services

Public bus transit service within the SWC Mason/Lassen Project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro), LADOT Transit Commuter Express, City of Santa Clarita Transit, and Antelope Valley Transit Authority. A summary of the existing transit service, including the transit route, destinations, and peak hour headways is presented on Table IV-35. The existing public transit routes in the SWC Mason/Lassen Project site vicinity are illustrated on Figure IV-3.

Table IV-35
Existing Public Transit Routes [1]

Route	Destinations	Roadway(s) Near Site	No. of Buses/Trains During Peak Hour		
			DIR	AM	PM
Metro 158	Sherman Oaks to Chatsworth (via Devonshire Street & Woodman Avenue)	Devonshire Street	EB WB	1 3	1 2
Metro 166/364	Sun Valley to Chatsworth (via Nordhoff Street to Osborne Street)	Nordhoff Street	EB WB	1 10	3 4
Metro 167	Studio City to Chatsworth Station (via Plummer Street & Coldwater Canyon Avenue)	Plummer Street	EB WB	1 1	2 1
Metro 242/243	Porter Ranch to Woodland Hills (via Tampa Avenue & Winnetka Avenue)	Mason Avenue	NB SB	2 2	2 2
Metro 244/245	Chatsworth Station to Woodland Hills (via De Soto Avenue & Topanga Canyon Boulevard)	De Soto Avenue	NB SB	5 2	1 2
SC 791	Santa Clarita to Warner Center/Chatsworth (via I-5 Freeway, De Soto Avenue & Topanga Canyon Blvd.)	De Soto Avenue	NB SB	2 0	0 1
SC 796	Santa Clarita to Warner Center/Chatsworth (via SR-14 Freeway, De Soto Avenue & Canoga Avenue)	De Soto Avenue	NB SB	0 1	3 0
AVTA 787	Lancaster/Palmdale to West San Fernando Valley (via Ventura Boulevard, De Soto Avenue & Plummer Street	Plummer Street	NB SB	0 3	2 0
CE 419	Downtown Los Angeles to Chatsworth (via Devonshire Street, Figueroa Street & Hill Street)	Devonshire Street	EB WB	2 0	0 1

[1] Sources:
Los Angeles County Metropolitan Transportation Authority (Metro) website, 2016.
City of Santa Clarita Transit (SC) website, 2016.
Antelope Valley Transit Authority (AVTA) website, 2016.
Los Angeles Department of Transportation (Commuter Express) website, 2016.



Source: Linscott, Law & Greenspan, engineers, 2016.

CAJA Environmental Services, LLC

Figure IV-3
Existing Public Transit Routes

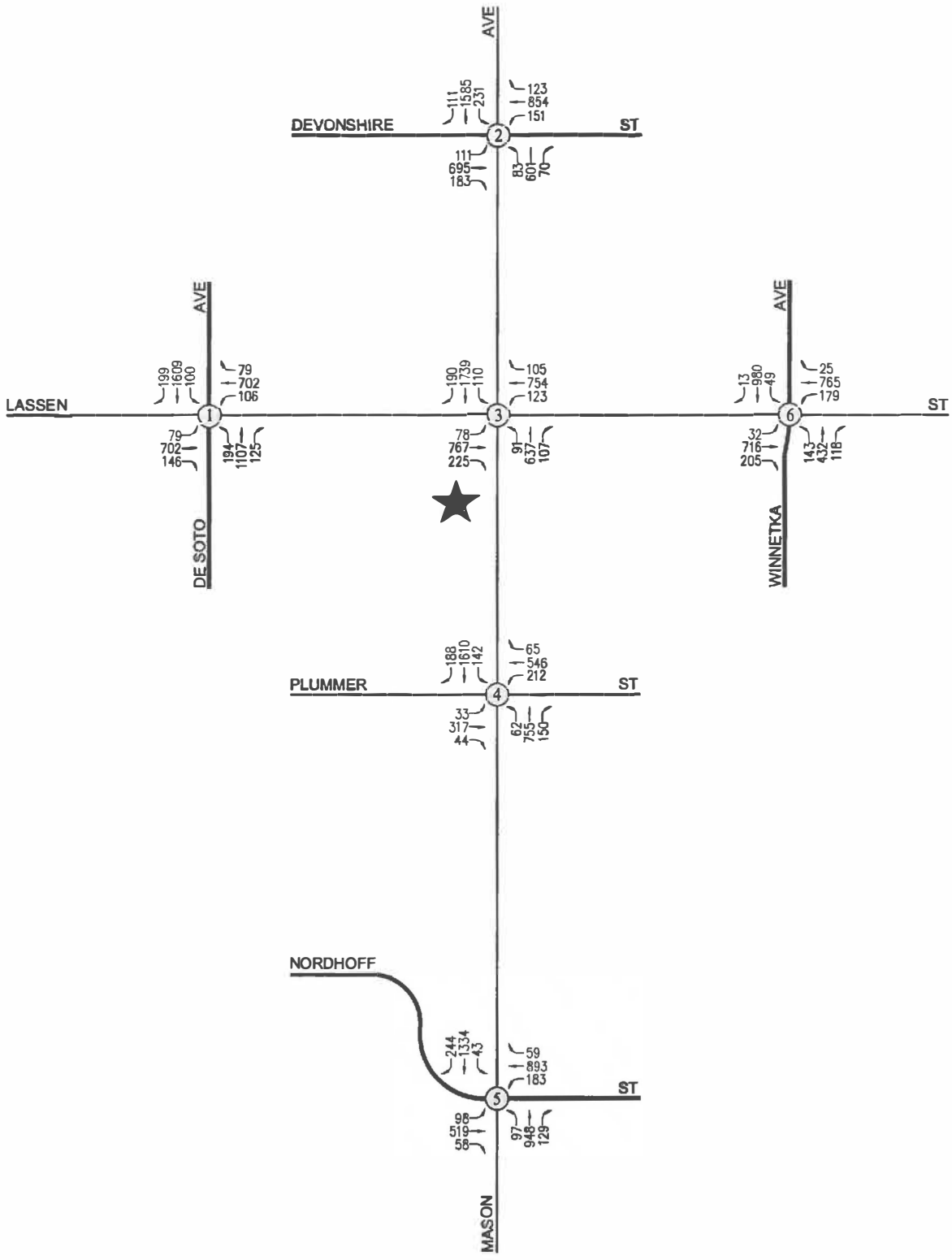
Existing Traffic Conditions

Manual traffic counts of vehicular turning movements were conducted at each of the six study intersections during the weekday morning and afternoon commuter periods to determine the peak-hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours. The weekday AM and PM peak-period manual counts of vehicle movements at the study intersections are summarized on Table IV-36. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown on Figures IV-4 and IV-5, respectively.

Table IV-36
Existing Traffic Volumes

No.	Intersection	Date	Dir	AM Peak Hour		PM Peak Hour	
				Began	Volume	Began	Volume
1	De Soto Ave/ Lassen Street	09/21/2016	NB	7:15	1,426	4:30	2,099
			SB		1,908		1,289
			EB		927		1,134
			WB		887		745
2	Mason Avenue/ Devonshire Street	09/21/2016	NB	7:15	754	4:45	1,558
			SB		1,927		844
			EB		989		1,045
			WB		1,128		1,012
3	Mason Avenue/ Lassen Street	09/21/2016	NB	7:15	835	4:30	1,639
			SB		2,039		898
			EB		1,070		1,382
			WB		982		701
4	Mason Avenue/ Plummer Street	09/21/2016	NB	7:15	967	4:30	1,519
			SB		1,940		898
			EB		394		882
			WB		823		582
5	Mason Avenue/ Nordhoff Street	09/21/2016	NB	7:15	1,174	4:30	1,049
			SB		1,621		1,109
			EB		675		1,538
			WB		1,135		807
6	Winnetka Avenue/ Lassen Street	09/21/2016	NB	7:15	693	4:30	1,324
			SB		1,042		503
			EB		953		1,084
			WB		969		633

[1] National Data & Surveying Services

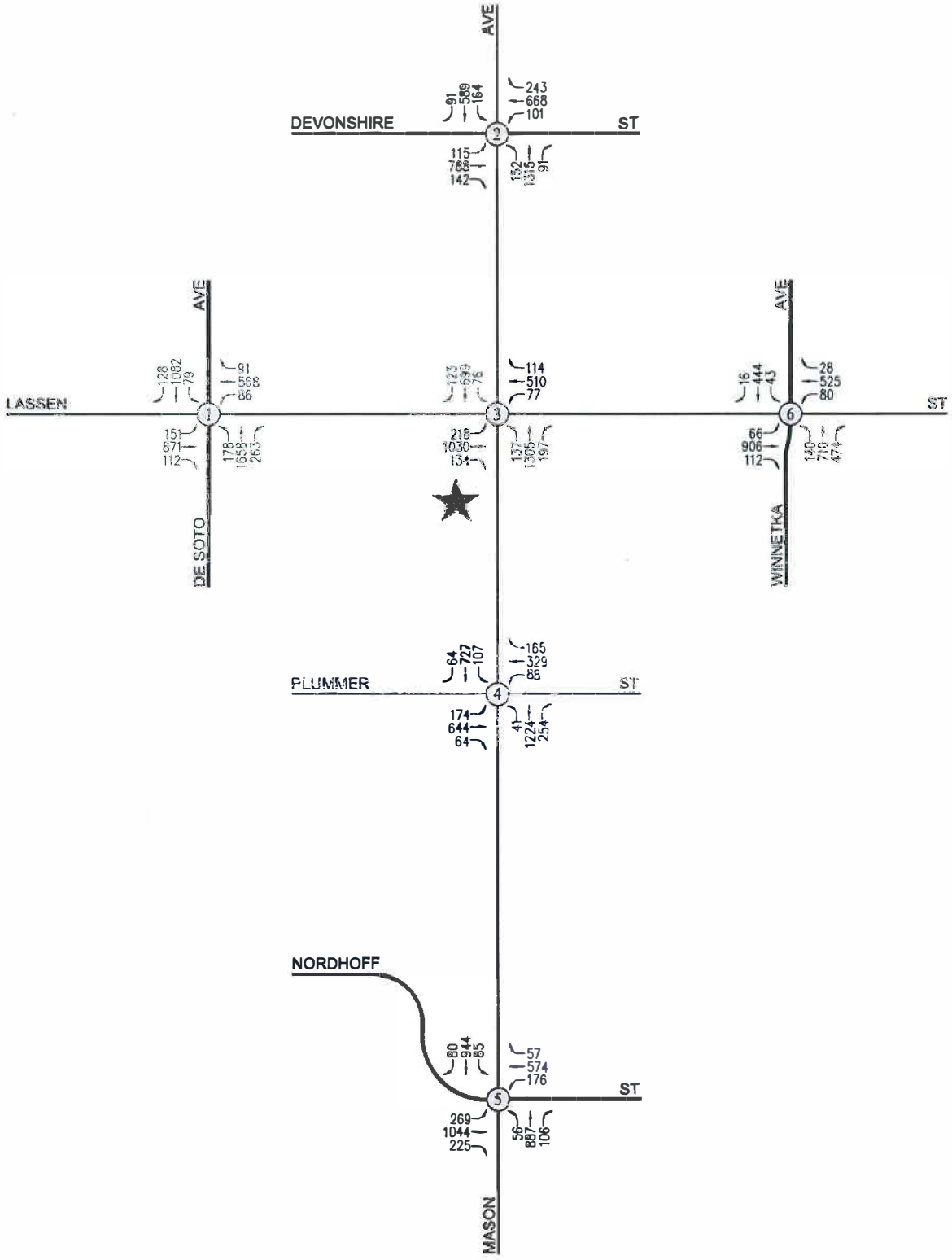


Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-4
Existing Traffic Volumes
Weekday AM Peak Hour



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-5
Existing Traffic Volumes
Weekday PM Peak Hour

As indicated in column [1] of Table IV-37, four of the six study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The following intersections are currently operating at LOS E or worse during the peak hours shown below under existing conditions:

- Int. No. 3: Mason Avenue/Lassen Street, AM Peak Hour
- Int. No. 5: Mason Avenue/Nordhoff Street, AM Peak Hour

Table IV-37
Summary of V/C Ratios and LOS
AM and PM Peak Hours

			[1]		[2]				[3]		[4]				[5]			
No.	Intersection	Peak Hour	Year 2016 Existing V/C	Year 2016 Existing LOS	Year 2016 Existing W/Project V/C	Year 2016 Existing W/Project LOS	Change V/C [(2)-(1)]	Signif. Impact [a]	Year 2018 Future Pre-Project V/C	Year 2018 Future Pre-Project LOS	Year 2018 Future W/ Project V/C	Year 2018 Future W/ Project LOS	Change V/C [(4)-(3)]	Signif. Impact [a]	Year 2018 W/ Project Mitigation V/C	Year 2018 W/ Project Mitigation LOS	Change V/C [(5)-(3)]	Miti-Gated
1	De Soto Ave/	AM	0.831	D	0.847	D	0.016	NO	0.880	D	0.894	D	0.014	NO	0.894	D	0.0014	---
	Lassen Street	PM	0.810	D	0.828	D	0.018	NO	0.875	D	0.894	D	0.019	NO	0.894	D	0.019	---
2	Mason Avenue/	AM	0.892	D	0.901	E	0.009	NO	0.950	E	0.958	E	0.008	NO	0.958	E	0.008	---
	Devonshire Street	PM	0.856	D	0.865	D	0.009	NO	0.918	E	0.927	E	0.009	NO	0.927	E	0.009	---
3	Mason Avenue/	AM	1.017	F	1.065	F	0.048	YES	1.087	F	1.134	F	0.047	YES	1.055	F	-0.032	YES
	Lassen Street	PM	0.891	D	0.924	E	0.033	YES	0.957	E	0.991	E	0.034	YES	0.943	E	-0.014	YES
4	Mason Avenue/	AM	0.788	C	0.802	D	0.014	NO	0.843	D	0.857	D	0.014	NO	0.857	D	0.014	---
	Plummer Street	PM	0.737	C	0.753	C	0.016	NO	0.793	C	0.807	D	0.014	NO	0.807	D	0.014	---
5	Mason Avenue/	AM	0.925	E	0.934	E	0.009	NO	0.971	E	0.980	E	0.009	NO	0.980	E	0.009	---
	Nordhoff Street	PM	0.719	C	0.723	C	0.004	NO	0.775	C	0.779	C	0.004	NO	0.779	C	0.004	---
6	Winnetka Avenue/	AM	0.680	B	0.695	B	0.015	NO	0.765	C	0.780	C	0.015	NO	0.780	C	0.015	---
	Lassen Street	PM	0.573	A	0.579	A	0.006	NO	0.627	B	0.633	B	0.006	NO	0.633	B	0.006	---

[a] According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	*LOS*	*Project Related Increase in v/c*
0.701-0.800	*C*	*equal to or greater than 0.040*
0801-0.900	*D*	*equal to or greater than 0.020*
>0.901	*F*	*equal to or great than 0.010*

Source: LLG, 2016.

Threshold of Significance

LADOT's significance criteria for determining intersection LOS impacts are shown on Table IV-38.

Table IV-38
LADOT Intersection Significance Thresholds

Intersection Conditions with Project Traffic		Project-related Increase in V/C Ratio
LOS	V/C	
C	0.701 - 0.800	Equal to or greater than 0.04
D	0.801 - 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01
Source: LADOT.		

Project Impacts

Trip Generation

Traffic volumes associated with Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual. The following trip generation rates were used to forecast the traffic volumes for the Project's land use components:

- Hotel: ITE Land Use Code 310 (Hotel) trip generation average rates were used to forecast the traffic volumes expected to be generated by the hotel component of the Project.
- Health Club: ITE Land Use Code 492 (Health/Fitness Club) trip generation average rates were used to forecast the traffic volumes expected to be generated by the health club component of the Project.
- Fast-Food Restaurant with Drive-Through: ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) trip generation average rates were used to forecast the traffic volumes expected to be generated by the fast-food component of the Project.
- High-Turnover Restaurant: ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates were used to forecast the traffic volumes expected to be generated by the restaurant component of the Project.
- Coffee Shop with Drive-Through: ITE Land Use Code 937 (Coffee/Donut Shop with Drive-Through Window) trip generation average rates were used to forecast the traffic volumes expected to be generated by the coffee shop component of the Project.

In addition to the trip generation forecasts for the Project land use components (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the Project site access points),

an internal capture adjustment has been applied for the Project to account for the synergistic effects of the planned land use mix. Internal capture trips are those trips made internal to the site between land uses in a mixed or multi-use development. When combined within a mixed or multi-use development, land uses tend to interact, and thus attract a portion of each other's trip generation. An internal capture adjustment of 10 percent has been utilized to account for the interaction between the hotel and commercial land uses.

An adjustment was also made to the trip generation forecast based on the Project site's existing land uses. The existing land uses to be removed include a 1,032 square foot automobile care center, 20,125 square feet of RV/boat storage, and 23,820 square feet of retail space. ITE Land Use Code 942 (Automobile Care Center) trip generation average rates were used to estimate the trips generated by the existing automobile care center within the Project site. ITE Land Use Code 150 (Warehousing) trip generation average rates were used to estimate the trips generated by the existing RV/boat storage within the Project site. ITE Land Use Code 820 (Shopping Center) trip generation average rates were used to estimate the trips generated by the existing retail within the Project site.

Furthermore, a forecast was also made of transit trips. The transit reduction is based on the Project site's proximity to the various bus lines, as well as the land use characteristics of the Project. As shown on Table IV-35 and Figure IV-3, the Project site is well served by public transit. A transit adjustment of 5 percent has been utilized.

Lastly, a forecast was made of likely pass-by trips. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. In this instance, the adjacent roadways to the Project site include Mason Avenue and Lassen Street. Based on the *LADOT Policy on Pass-By Trips*, a 20 percent pass-by reduction adjustment was applied to the health club and high-turnover restaurant land use components of the Project. A 50 percent pass-by reduction adjustment was applied to the fast-food with drive-through and coffee shop with drive-through components of the Project. Lastly, 10 percent and 50 percent pass-by reduction adjustments were applied to the existing automobile care center and retail land use components of the Project site, respectively.

The trip generation forecast for the Project was submitted for review and approval by LADOT staff. As presented on Table IV-39, the Project would generate approximately 345 net new vehicle trips (180 inbound trips and 165 outbound trips) during the AM peak hour. During the PM peak hour, the Project would generate approximately 257 net new vehicle trips (142 inbound trips and 115 outbound trips). Over a 24-hour period, the Project would generate an approximate net increase of 3,715 daily trip ends (approximately 1,858 inbound trips and 1,857 outbound trips) during a typical weekday.

Table IV-39
Project Trip Generation

Land Use	Size	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
			In	Out	Total	In	Out	Total
Proposed Project [3]								
Hotel (Building 4) [4]	125 Rooms	1,021	39	27	66	38	37	75
Health Club (Bldg. 1) [5]	20,125 GSF	663	14	14	28	40	31	71
Fast-Food Restaurant w/DT (Bldg. 7&8) [6]	6,400 GSF	3,175	148	143	291	109	100	209
High-Turnover Restaurant (Bldg. 5) [7]	9,774 GSF	1,316	62	50	112	61	41	102
Coffee Shop with Drive-Through (Bldg. 6) [8]	2,000 GSF	1,637	103	98	201	43	43	86
Subtotal		7,812	366	332	698	291	252	543
Existing to Be Removed								
Automobile Care Center [9]	(1,032) GLSF	(30)	(1)	(1)	(2)	(2)	(1)	(3)
RV/Boat Storage [10]	(20,125) GSF	(72)	(5)	(1)	(6)	(2)	(4)	(6)
Retail [11]	(28,820) GISF	(1,023)	(15)	(9)	(24)	(44)	(45)	(89)
Subtotal		(1,125)	(21)	(11)	(32)	(48)	(50)	(98)
Transit [12] (5%)								
Hotel		(51)	(2)	(1)	(3)	(2)	(2)	(4)
Health Club		(33)	(1)	(1)	(2)	(2)	(2)	(4)
Fast-Food Restaurant w/DT		(159)	(7)	(7)	(14)	(5)	(5)	(10)
High-Turnover Restaurant		(66)	(3)	(3)	(6)	(3)	(2)	(5)
Coffee Shop w/DT		(82)	(5)	(5)	(10)	(2)	(2)	(4)
Subtotal		(391)	(18)	(17)	(35)	(14)	(13)	(27)
Existing Transit [12] 5%								
Automobile Care Center		2	0	0	0	0	0	0
R/V Boat Storage		4	0	0	0	0	0	0
Retail		51	1	0	1	2	2	4
Subtotal		57	1	0	1	2	2	4
Internal Capture [13] (10%)								
Hotel		(97)	(4)	(3)	(7)	(4)	(4)	(8)
Health Club		(63)	(1)	(1)	(2)	(4)	(3)	(7)
Fast-Food Restaurant w/DT		(302)	(14)	(14)	(28)	(10)	(10)	(20)
High-Turnover Restaurant		(125)	(6)	(5)	(11)	(6)	(4)	(10)
Coffee shop w/DT		(156)	(10)	(9)	(19)	(4)	(4)	(8)
Subtotal		(743)	(35)	(32)	(67)	(28)	(25)	(53)
Driveway Subtotal		**5,610**	**293**	**272**	**565**	**203**	**166**	**369**
Pass-By Trips [14]								
Health Club (20%)		(113)	(2)	(2)	(4)	(7)	(5)	(12)

Table IV-39
Project Trip Generation

Land Use	Size	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
			In	Out	Total	In	Out	Total
Fast-Food Restaurant w/DT (50%)		(1,357)	(64)	(61)	(125)	(47)	(43)	(90)
High-Turnover Restaurant (20%)		(225)	(11)	(8)	(19)	(10)	(7)	(17)
Coffee Shop w/DT (50%)		(700)	(44)	(42)	(86)	(19)	(19)	(38)
Existing Pass-By Trips [14]								
Automobile Care Center (10%)		14	1	1	2	1	1	2
Retail (50%)		486	7	5	12	21	22	43
NET Trips		**3,715**	**180**	**165**	**345**	**142**	**115**	**257**

[1] Source: ITE "Trip Generation", 9th Edition, 2012.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Note: Buildings 2 and 3 are currently retail uses and are proposed to remain as retail in conjunction with the proposed project. As their trip generation
potential will not change, these buildings are not included in the trip generation forecast of net new trips related to the proposed project.
[4] ITE Land Use Code 310 (Hotel) trip generation average rates.
- Daily Trip Rate: 8.17 trips/room; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.53 trips/room; 59% inbound/41% outbound
- PM Peak Hour Trip Rate: 0.60 trips/room; 51% inbound/49% outbound
[5] ITE Land Use Code 492 (Health/Fitness Club) trip generation average rates.
- Daily Trip Rate: 32.93 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.41 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 3.53 trips/1,000 SF of floor area; 57% inbound/43% outbound
[6] ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) trip generation average rates.
- Daily Trip Rate: 496.12 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 45.42 trips/1,000 SF of floor area; 52% inbound/45% outbound
- PM Peak Hour Trip Rate: 32.65 trips/1,000 SF of floor area; 52% inbound/48% outbound
[7] ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates.
- Daily Trip Rate: 127.15 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 10.81 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 9.85 trips/1,000 SF of floor area; 60% inbound/40% outbound
[8] ITE Land Use Code 937 (Coffee/Donut Shop with Drive-Through Window) trip generation average rates.
- Daily Trip Rate: 818.58 trips/1000 GSF; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 100.58 trips/1000 GSF; 51% inbound/49% outbound
- PM Peak Hour Trip Rate: 42.80 trips/1000 GSF; 50% inbound/50% outbound
[9] ITE Land Use Code 942 (Automobile Care Center) trip generation average rates.
- Daily Trip Rate: No average trip rates available.
- AM Peak Hour Trip Rate: 2.25 trips/1,000 SF of floor area; 66% inbound/34% outbound
- PM Peak Hour Trip Rate: 3.11 trips/1,000 SF of floor area; 48% inbound/52% outbound
Daily trip ends estimated based on the assumption that the higher of the AM or PM total peak hour traffic volume typically represents
10 percent of the daily traffic volume.
[10] ITE Land Use Code 150 (Warehousing) trip generation average rates.
- Daily Trip Rate: 3.56 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.3 trips/1,000 SF of floor area; 79% inbound/21% outbound
- PM Peak Hour Trip Rate: 0.32 trips/1,000 SF of floor area; 25% inbound/75% outbound
[11] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
- Daily Trip Rate: 42.7 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.96 trips/1,000 SF of floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.71 trips/1,000 SF of floor area; 48% inbound/52% outbound

[12] The Project site is located approximately 1 mile from a Metro Rapid bus stop. The trip reduction for transit trips has been

Table IV-39
Project Trip Generation

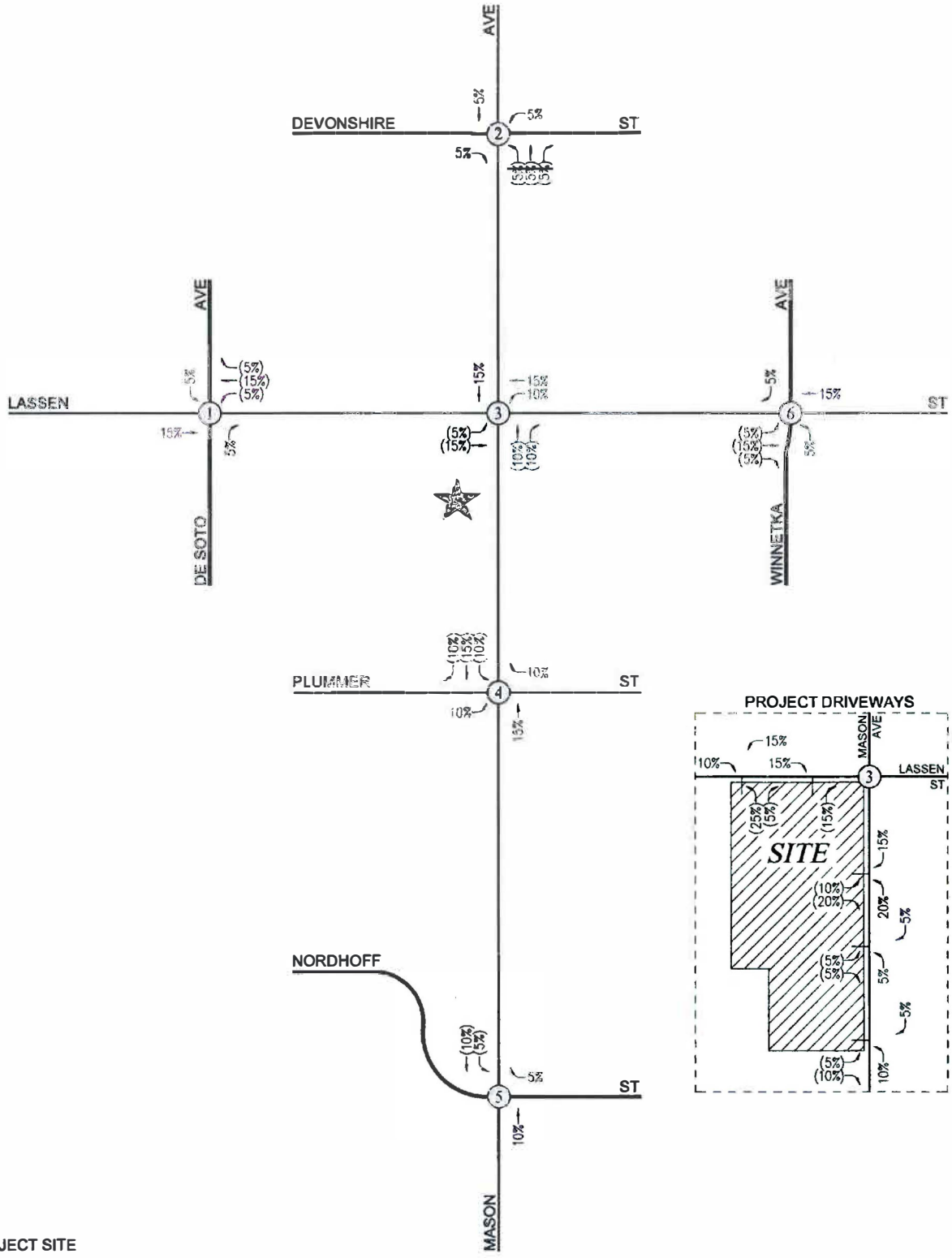
Land Use	Size	Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
			In	Out	Total	In	Out	Total
applied								
to the commercial components of the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments not within a 1/4 mile walking distance of a transit station or a RapidBus stop.								
[13] The internal capture reduction for the Project is based on the synergy between the hotel and commercial uses provided within the Project site.								
[14] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion.								
Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site.								
The trip reduction for pass-by trips has been applied to the commercial component of the project based on the "LADOT Traffic Study Policies								
and Procedures", August 2014 for Recreation/Health Club, Shopping Center less than 50,000 sf, Fast Food Restaurant, High Turnover Restaurant,								
and Auto Sales/Repair.								

Trip Distribution and Assignment of Project Traffic

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The Project site's proximity to major traffic corridors (i.e. De Soto Avenue, Winnetka Avenue, Devonshire Street, SR-118 Freeway, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project site;
- The location of existing and proposed parking areas; and
- Nearby population and employment centers as well as adjacent residential neighborhoods.

The general directional traffic distribution patterns for the Project are presented on Figure IV-6. The forecast net new weekday AM and PM peak-hour Project traffic volumes at the study intersections associated with the Project are presented on Figures IV-7 and IV-8, respectively. The traffic volume assignments presented on Figures IV-7 and IV-8 reflect the traffic distribution characteristics shown on Figure IV-6 and the Project traffic generation forecast presented on Table IV-39.



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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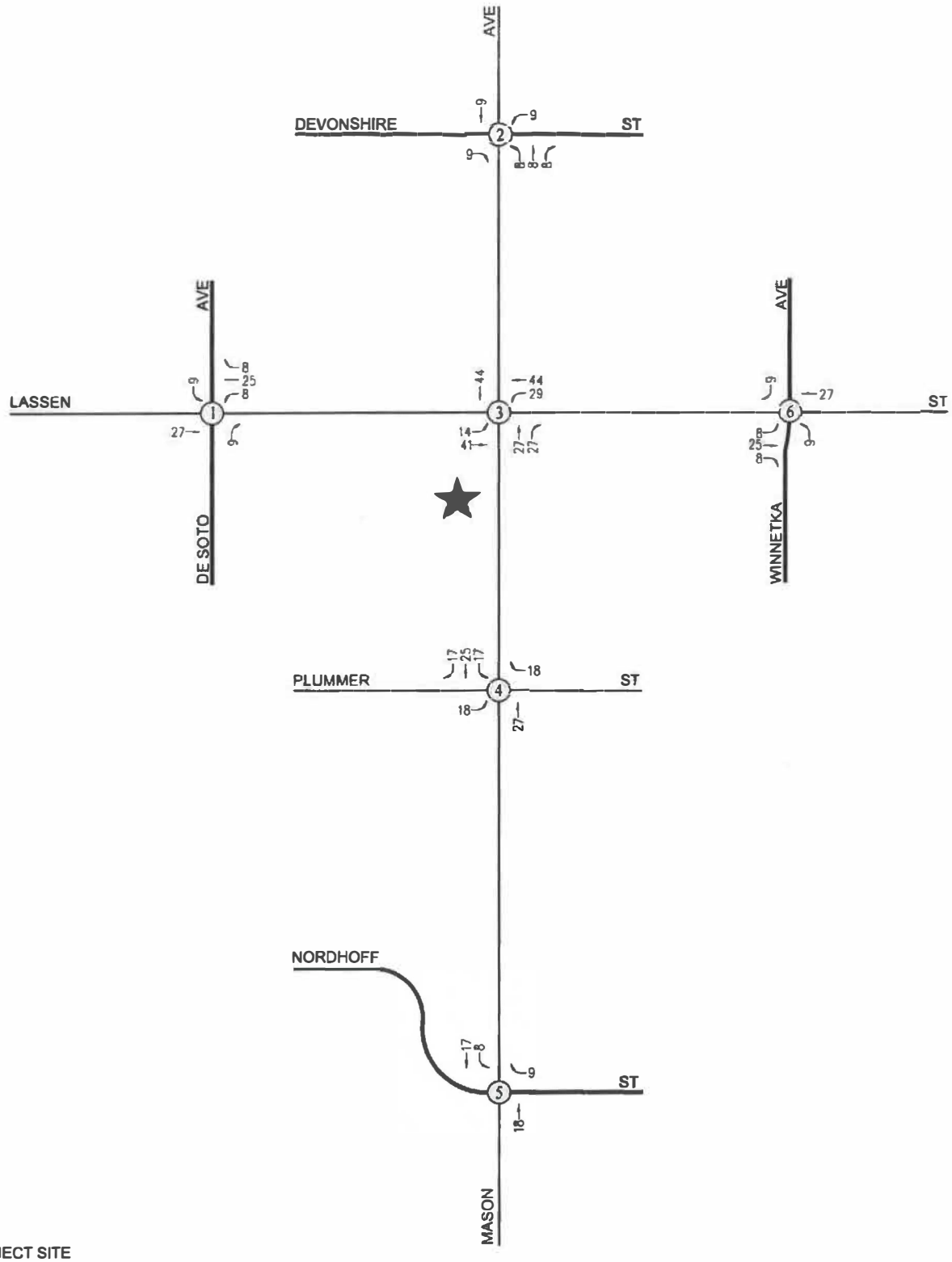
Figure IV-6
Project Trip Distribution



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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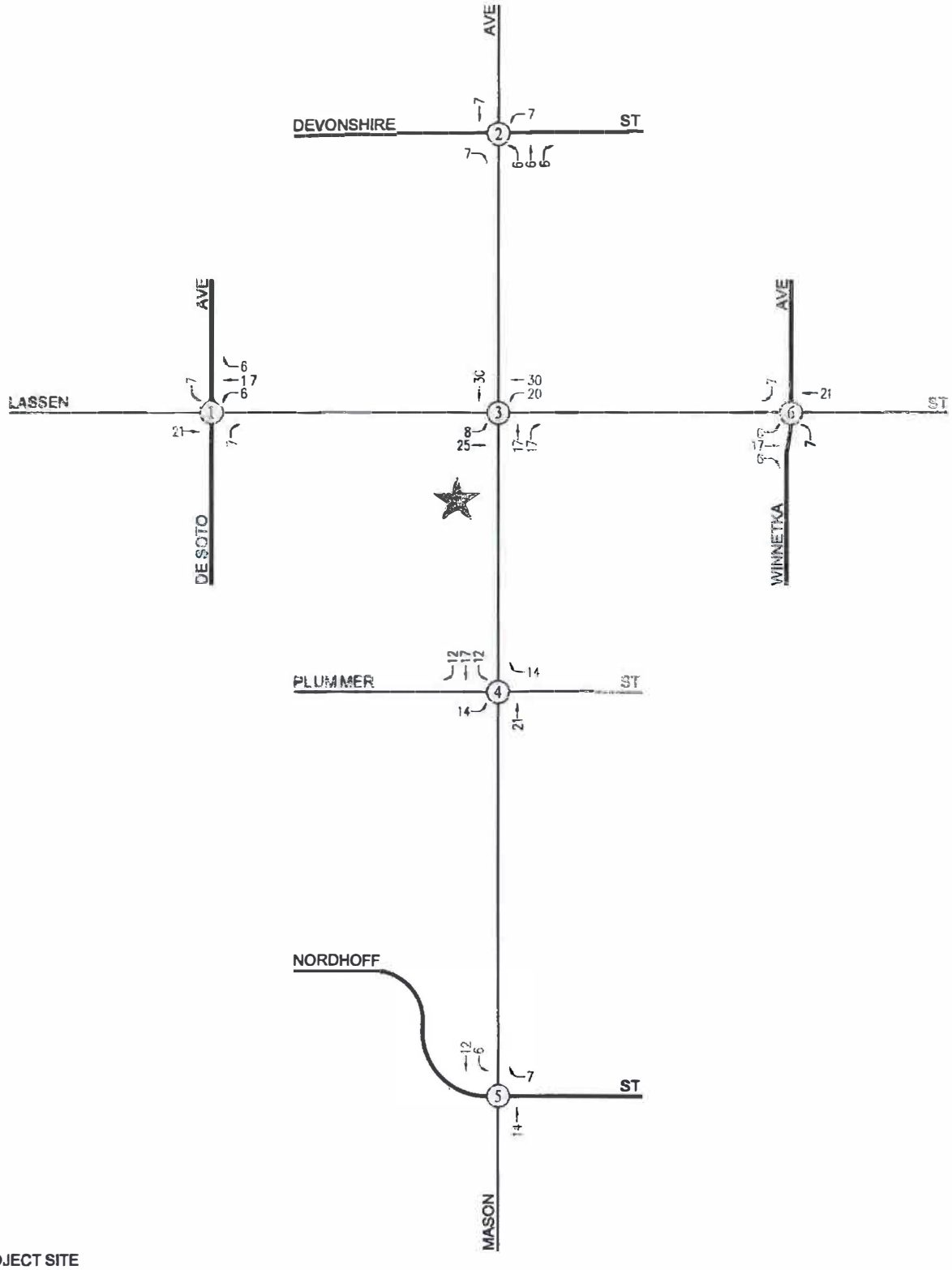
Figure IV-7
Net New Project Traffic Volumes
Weekday AM Peak Hour



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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Figure IV-8
Net New Project Traffic Volumes
Weekday PM Peak Hour

Existing With Project LOS

The existing with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated on Table IV-37 and on Figures IV-9 and IV-10, respectively. As shown in column [2] of Table IV-37 application of the City's threshold criteria to the "Existing With Project" scenario indicates that the Project would not create a significant impact at five of the six study intersections. As indicated on Table IV-37, a significant traffic impact would occur at the following intersection during the peak hours shown below under Existing With Project conditions:

- Int. No. 3: Mason Avenue/Lassen Street, AM and PM Peak Hours

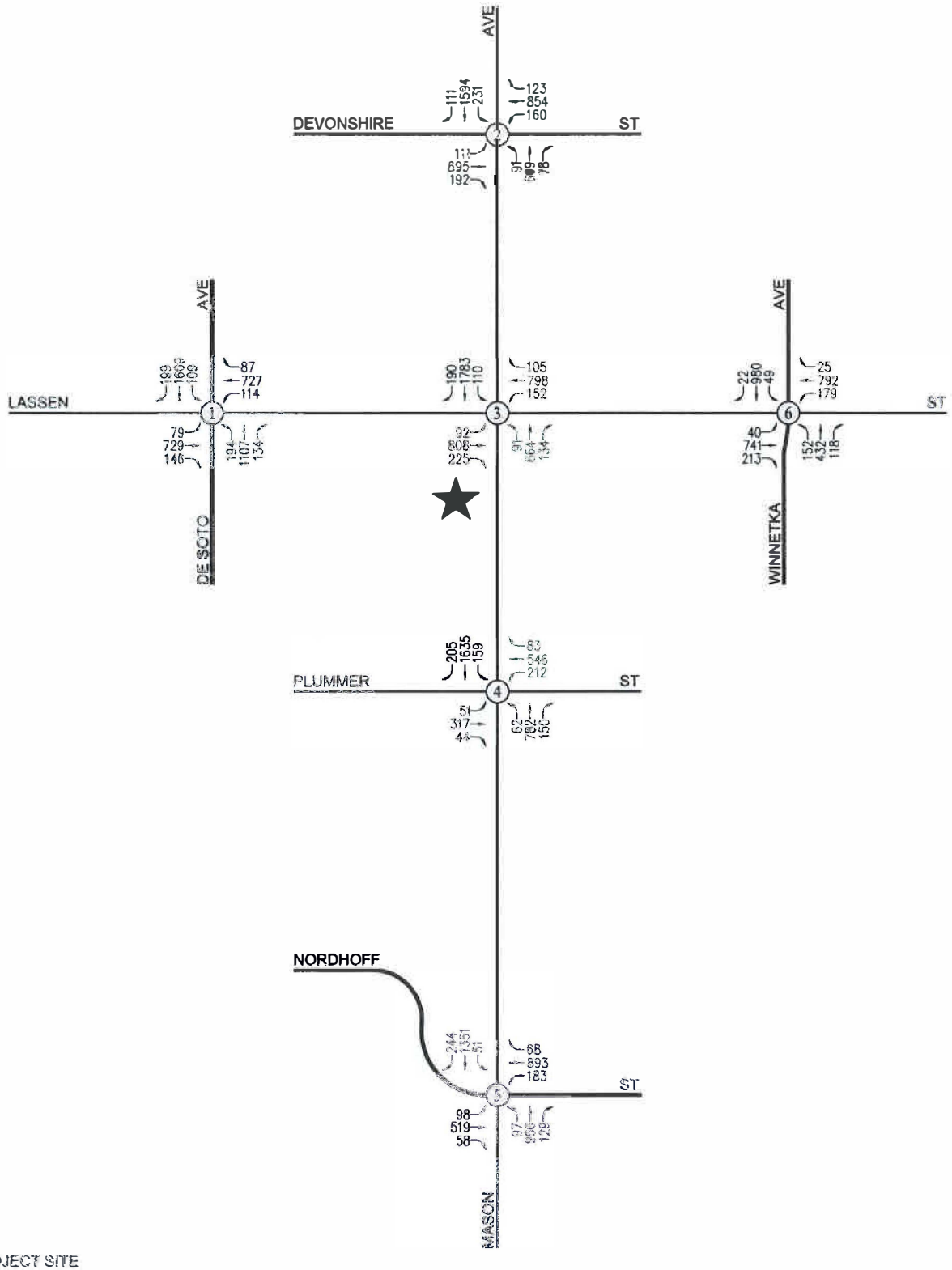
However, implementation of Mitigation Measure 16-1 would reduce the Project's impact to less than significant.

Future Traffic Conditions

The forecast of future pre-Project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

> *(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or*
>
> *(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.*

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in CEQA Guidelines for purposes of developing the forecast.



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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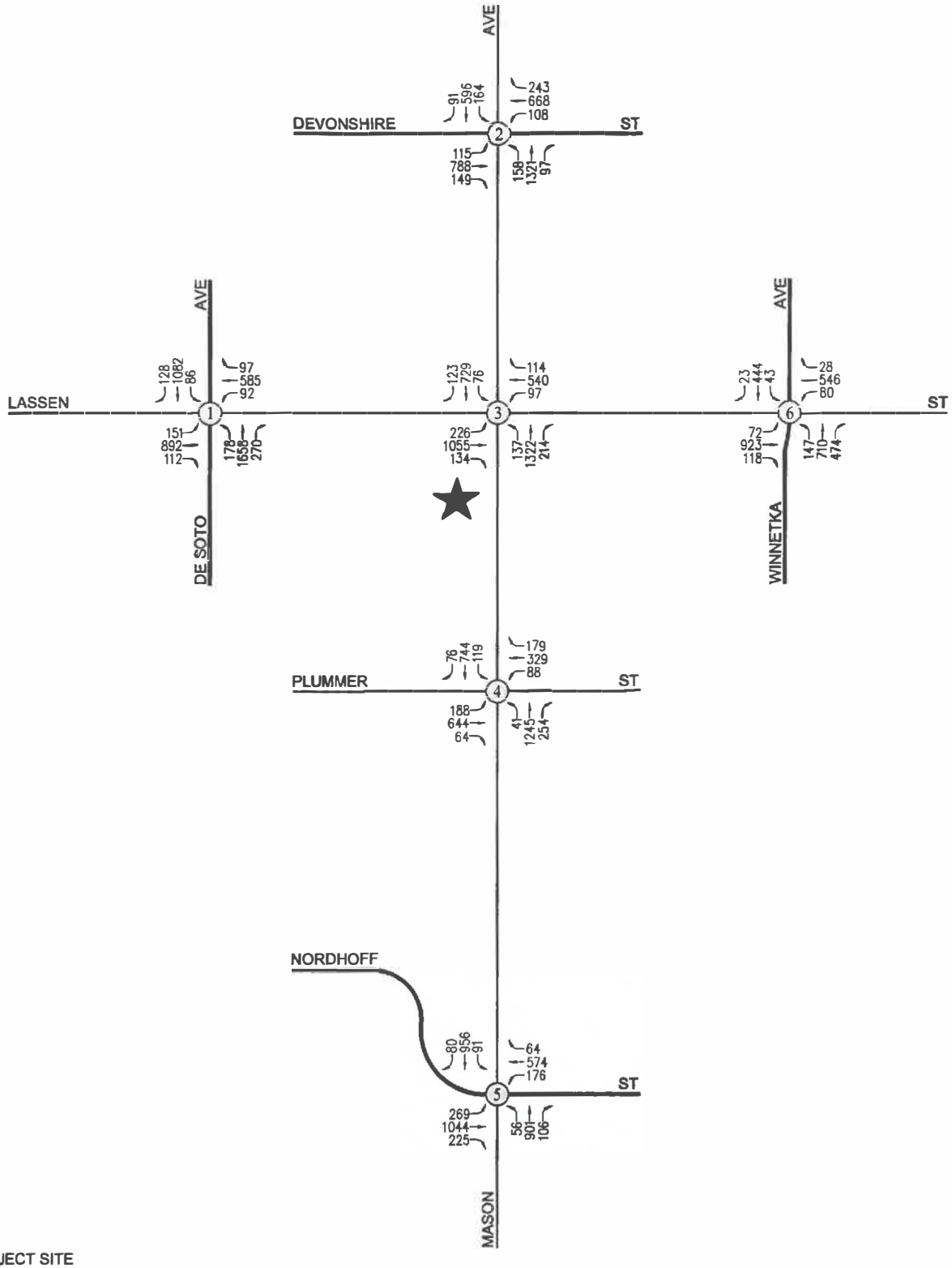
Figure IV-9
Existing with Project Traffic Volumes
Weekday PM Peak Hour



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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Figure IV-10
Existing with Project Traffic Volumes
Weekday PM Peak Hour

Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Los Angeles Departments of Transportation and Planning. The list of related projects in the Project site area is presented on Table IV-40. The location of the related projects is shown on Figure IV-11.

Traffic volumes generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual.[75] The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized on Table IV-40. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed on Figures IV-12 and IV-13, respectively.

Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 2.0 percent per year to the year 2018 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the "CMP manual") and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the San Fernando Valley area, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 0.54 percent per year between the years 2015 and 2020. Thus, application of an annual growth factor of 2.0 percent allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Therefore, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

---

[75] *Institute of Transportation Engineers Trip Generation manual, 9th Edition, Washington, D.C., 2012.*

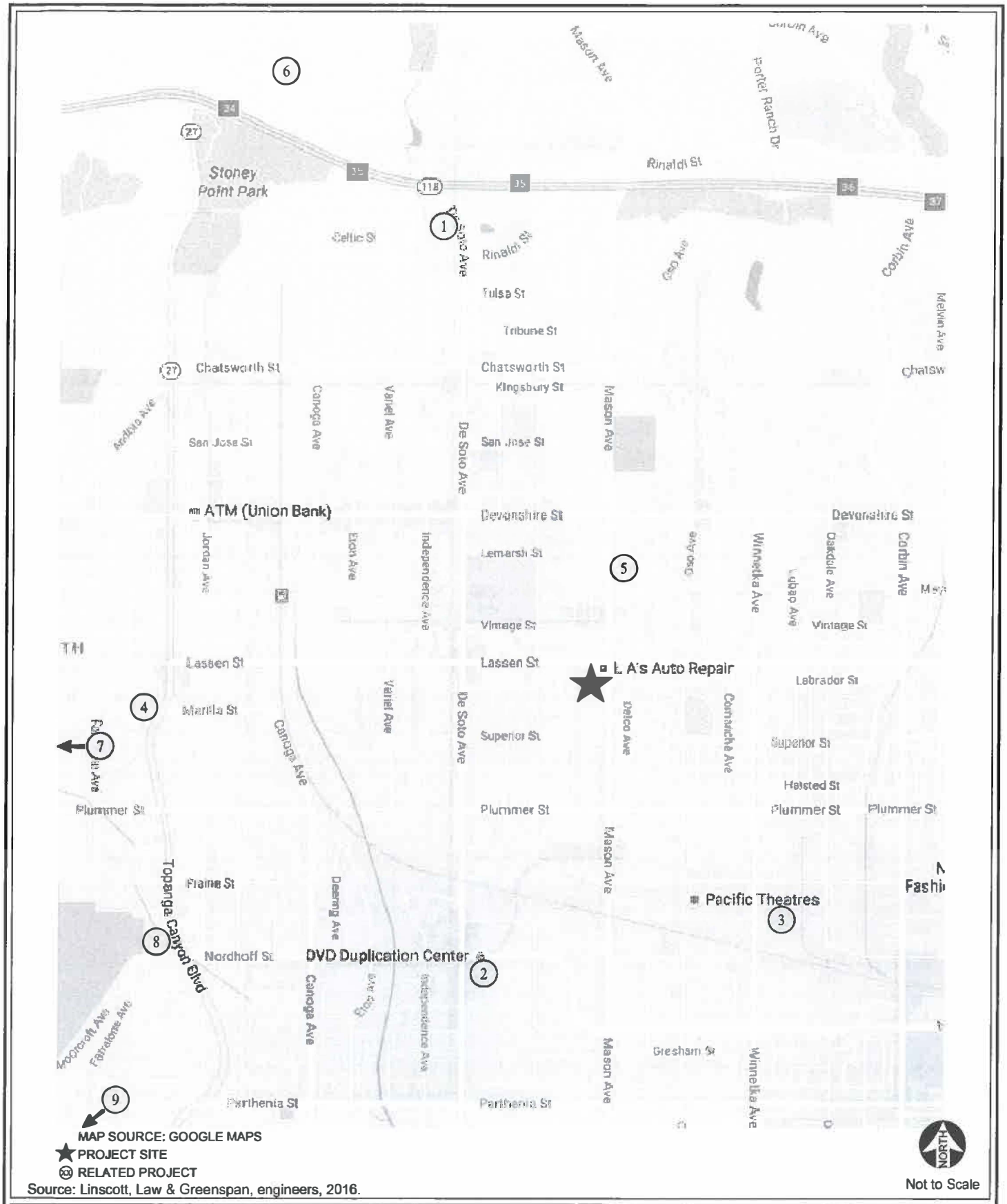
Table IV-40
Related Projects List and Trip Generation [1]

Map No.	Project Name/ Project Number	Project Status	Address/Location	Land Use Data		Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size		In	Out	Total	In	Out	Total
1	Sierra Canyon Athletic Fields [3]	Proposed	11047 De Soto Avenue	Courts/Fields		122	0	0	0	61	6	67
2	Chatsworth Commerce Center	Built	20842 Nordhoff Street	Fast Food Restaurant Specialty Retail Manufacturing	7,000 GSF 10,200 GSF 112,278 GSF	2,573	152	100	252	100	121	221
3	MGA Mixed Use Chatsworth Campus	Proposed	20000 W. Prairie Street	Corporate Headquarters Creative Office Retail Restaurant Apartments	212,815 GSF 43,000 GSF 11,000 GSF 3,000 GSF 700 DU	8,157	441	347	788	371	489	860
4	Radisson Hotel [5]	Proposed	9755 Topanga Canyon Blvd.	Hotel	136 Rooms	1,111	42	30	72	42	40	82
5	Fitness 19	Proposed	10130 Mason Avenue	Shopping Center	16,788 GSF	413	10	11	21	28	19	47
6	Deerlake Ranch Project [6]	Proposed	North of State Route 118, between Topanga Canyon Boulevard and Canoga Avenue	Single-Family Homes	314 DU	2,898	68	201	269	188	106	294
7	Andora Subdivision Project [7]	Proposed	Northwest of Andora Avenue & Plummer Street	Single-Family Homes	42 DU	400	8	24	32	26	16	42
8	Detached Condominiums [7]	Proposed	22001 Nordhoff Street	Detached Condominiums	55 DU	320	4	20	24	19	9	28
9	Single Family Residence [7]	Proposed	8500 Fallbrook Avenue	Single-Family Homes	90 DU	857	17	51	68	57	33	90
TOTAL						16,851	742	784	1,526	892	839	1,731

[1] Source: City of Los Angeles Department of Transportation Related Projects List
[2] Trips are one-way traffic movements, entering or leaving.
[3] Source: Traffic Impact Study for the Sierra Canyon School Athletic Field Project, prepared by Overland Traffic Consultants, Inc., Updated January 17, 2008.
[4] Source: Traffic Impact Study for the MGA Chatsworth Mixed-Use Project, prepared by Overland Traffic Consultants, Inc., Updated October 2014.

Table IV-40
Related Projects List and Trip Generation [1]

Map No.	Project Name/ Project Number	Project Status	Address/Location	Land Use Data		Daily Trip Ends [2] Volumes	AM Peak Hour Volumes [2]			PM Peak Hour Volumes [2]		
				Land-Use	Size		In	Out	Total	In	Out	Total
[5] Source: Traffic Impact Study for the Chatsworth Hotel Project, prepared by Linscott, Law & Greenspan, Engineers, August 25, 2015.												
[6] Source: Traffic Impact Study for the Deerlake Ranch Project, prepared by Linscott, Law & Greenspan, Engineers. July 11, 2002.												
[7] Source: Traffic Impact Study for the Andora Estates Project, prepared by Overland Traffic Consultants, Inc., Updated October 20,2015.												



Source: Linscott, Law & Greenspan, engineers, 2016.

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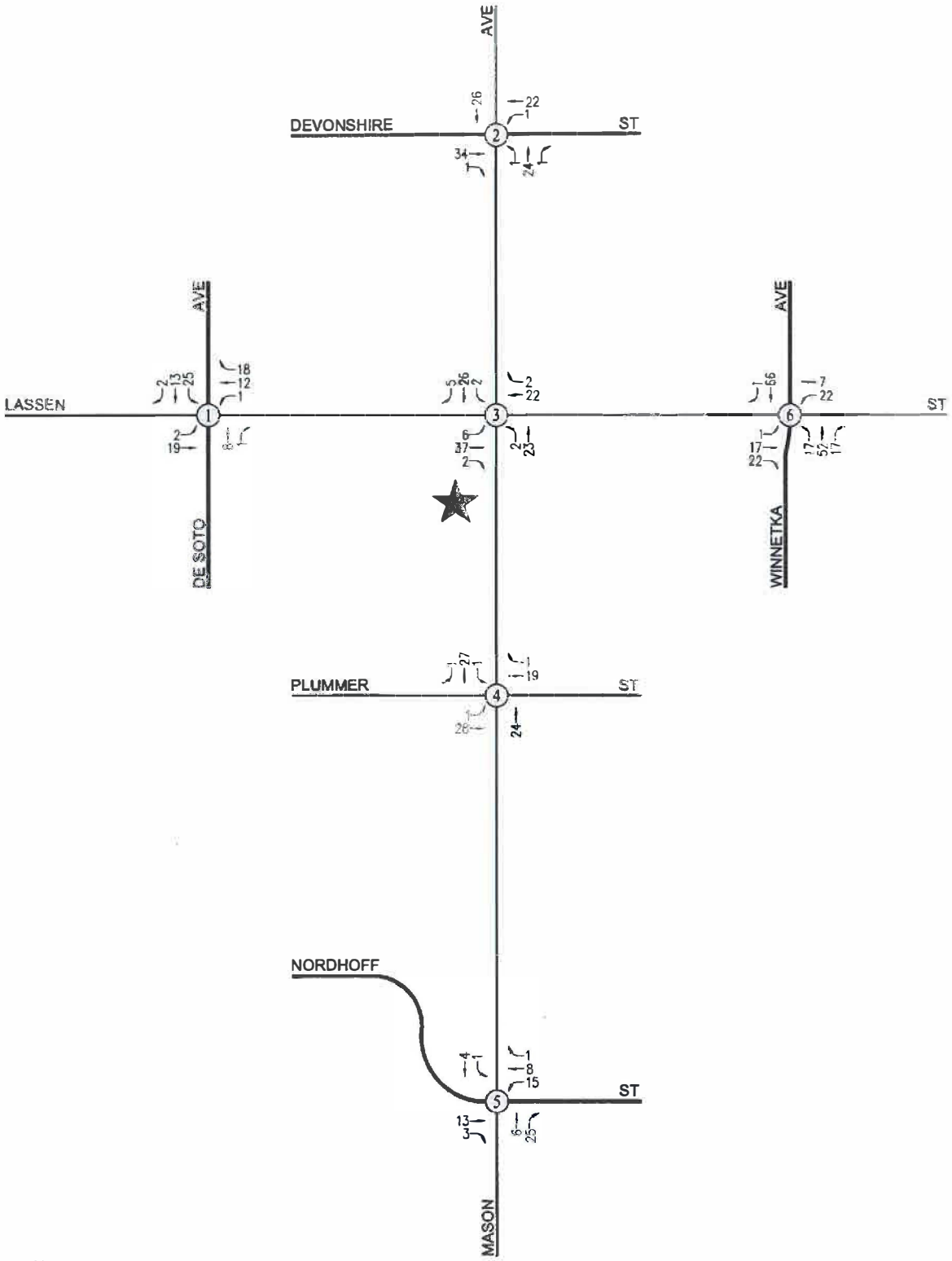
Figure IV-11
Location of Related Projects



★ PROJECT SITE
⊗ STUDY INTERSECTION

Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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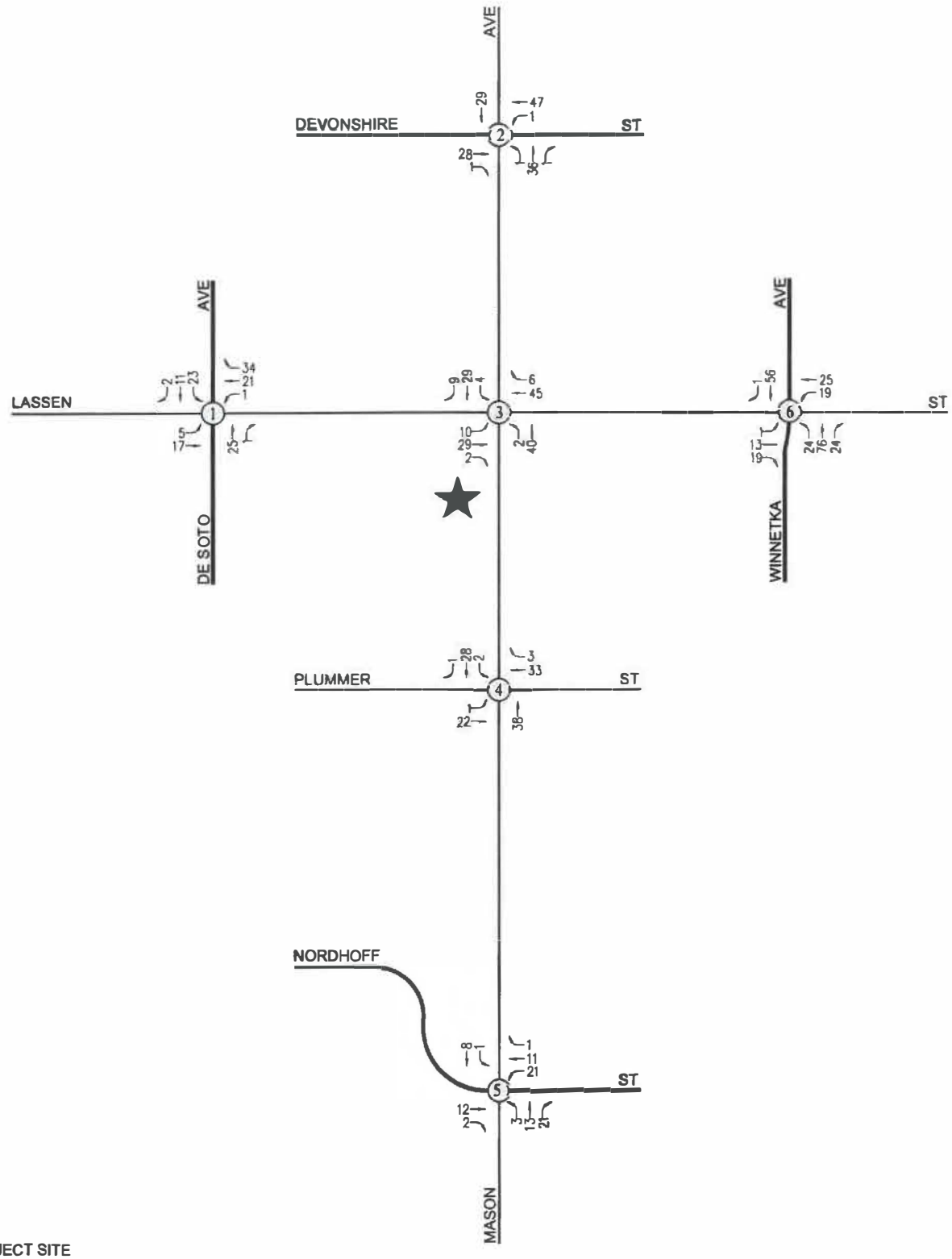
Figure IV-12
Related Projects Traffic Volumes
Weekday AM Peak Hour



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

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Figure IV-13
Related Projects Traffic Volumes
Weekday PM Peak Hour

Future Cumulative Baseline Conditions

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed on Table IV-40.

As presented in column [3] of Table IV-37 three of the six study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline condition. The following intersections are expected to operate at LOS E or worse during the peak hours shown below under future cumulative baseline conditions:

- Int. No. 2: Mason Avenue/Devonshire Street, AM and PM Peak Hours
- Int. No. 3: Mason Avenue/Lassen Street, AM Peak Hour
- Int. No. 5: Mason Avenue/Nordhoff Street, AM and PM Peak Hours

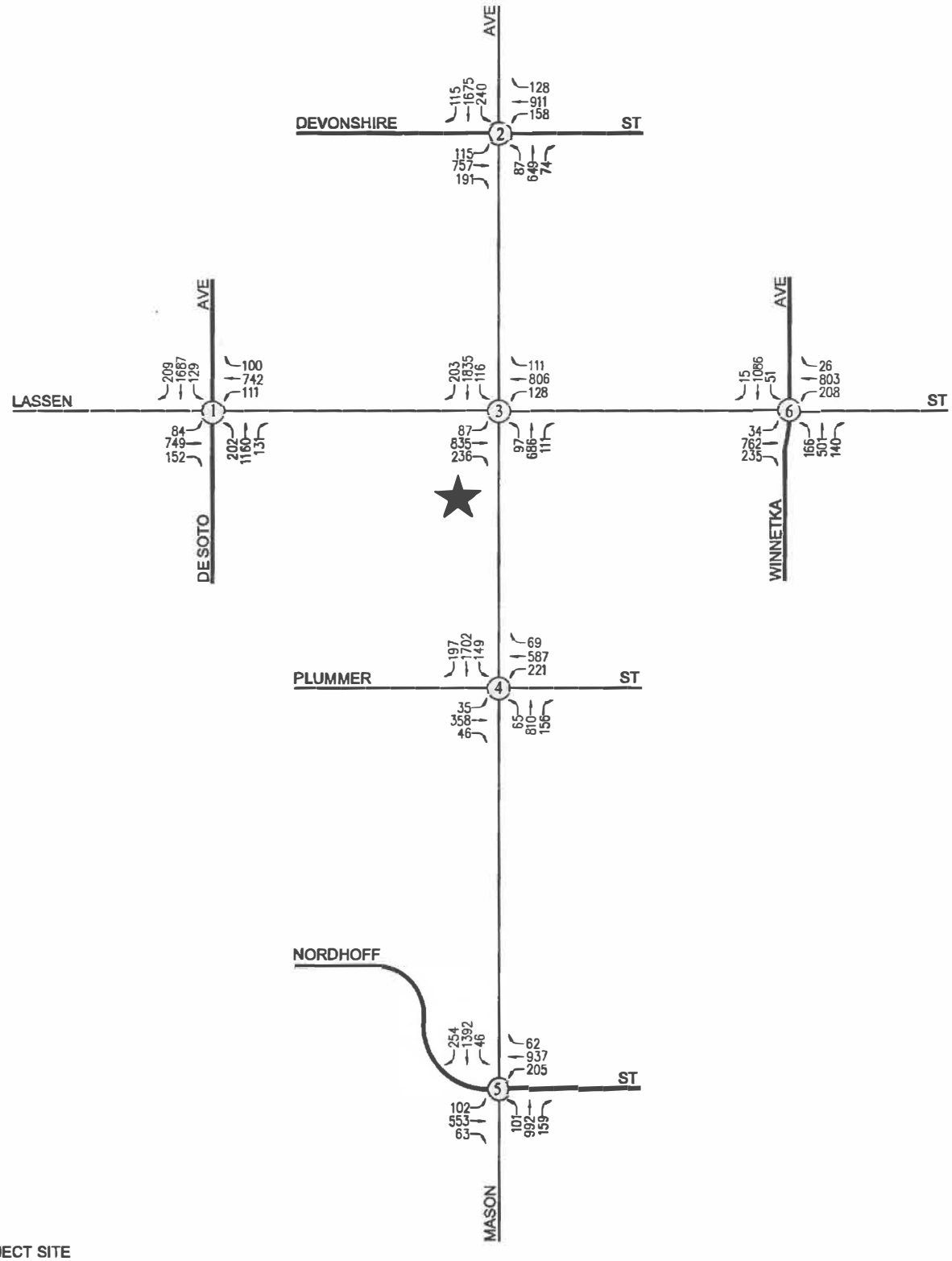
The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented on Figures IV-14 and IV-15, respectively.

Future Cumulative With Project Conditions

The future cumulative with Project conditions were forecast based on the addition of traffic generated by the Project plus completion and occupancy of related projects. The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated on Table IV-37 and on Figures IV-16 and IV-17, respectively. As shown in column [4] of Table IV-37, application of the City's threshold criteria to the "Future With Project" scenario indicates that the Project would not create a significant impact at five of the six study intersections. As indicated on Table IV-37, a significant traffic impact would occur at the following intersection during the peak hours shown below under future cumulative with Project conditions:

- Int. No. 3: Mason Avenue/Lassen Street, AM and PM Peak Hours

However, implementation of Mitigation Measure 16-1 would reduce the Project's impact to less than significant.

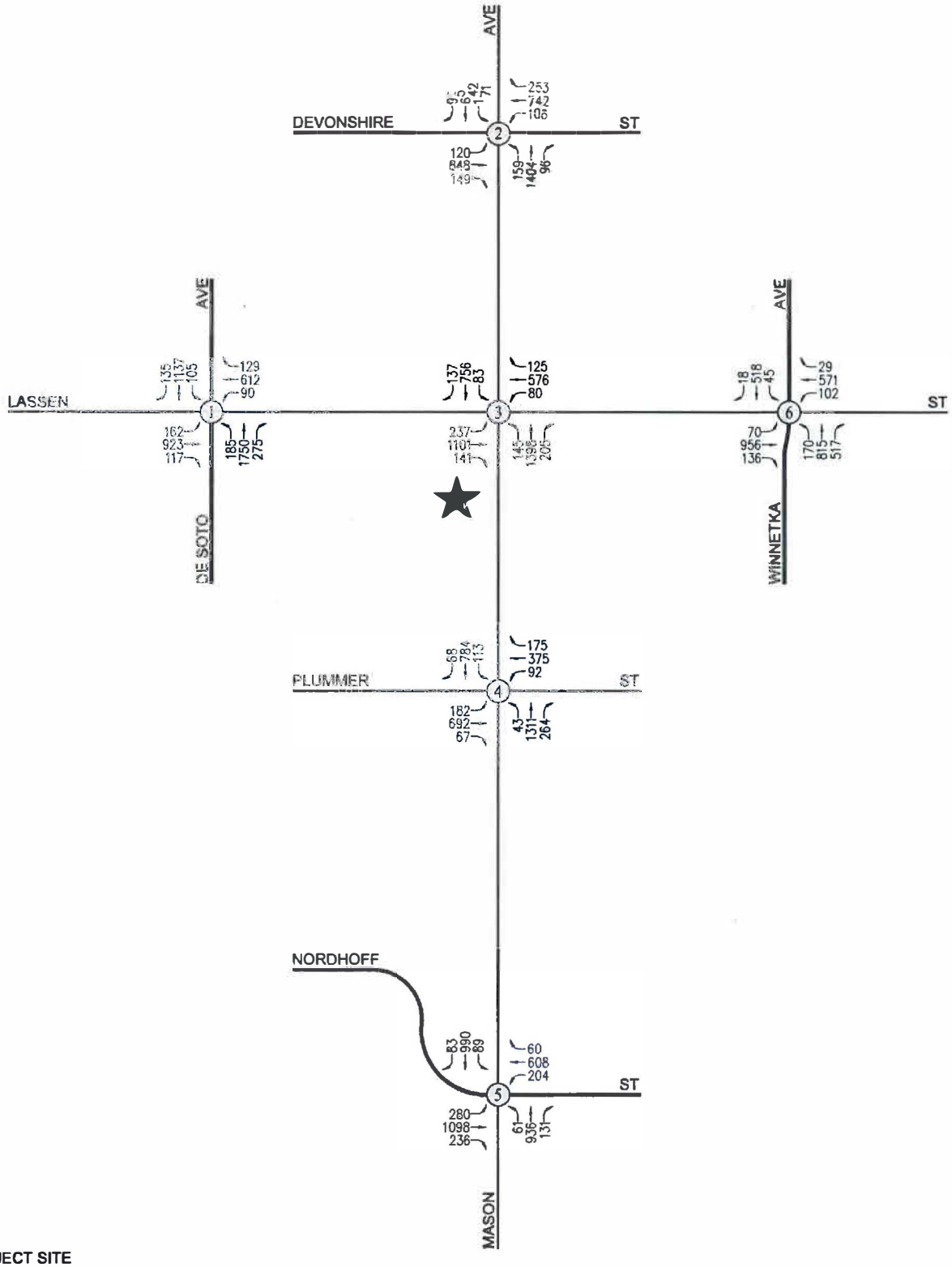


Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-14
Future Cumulative Baseline Traffic Volumes
Weekday AM Peak Hour

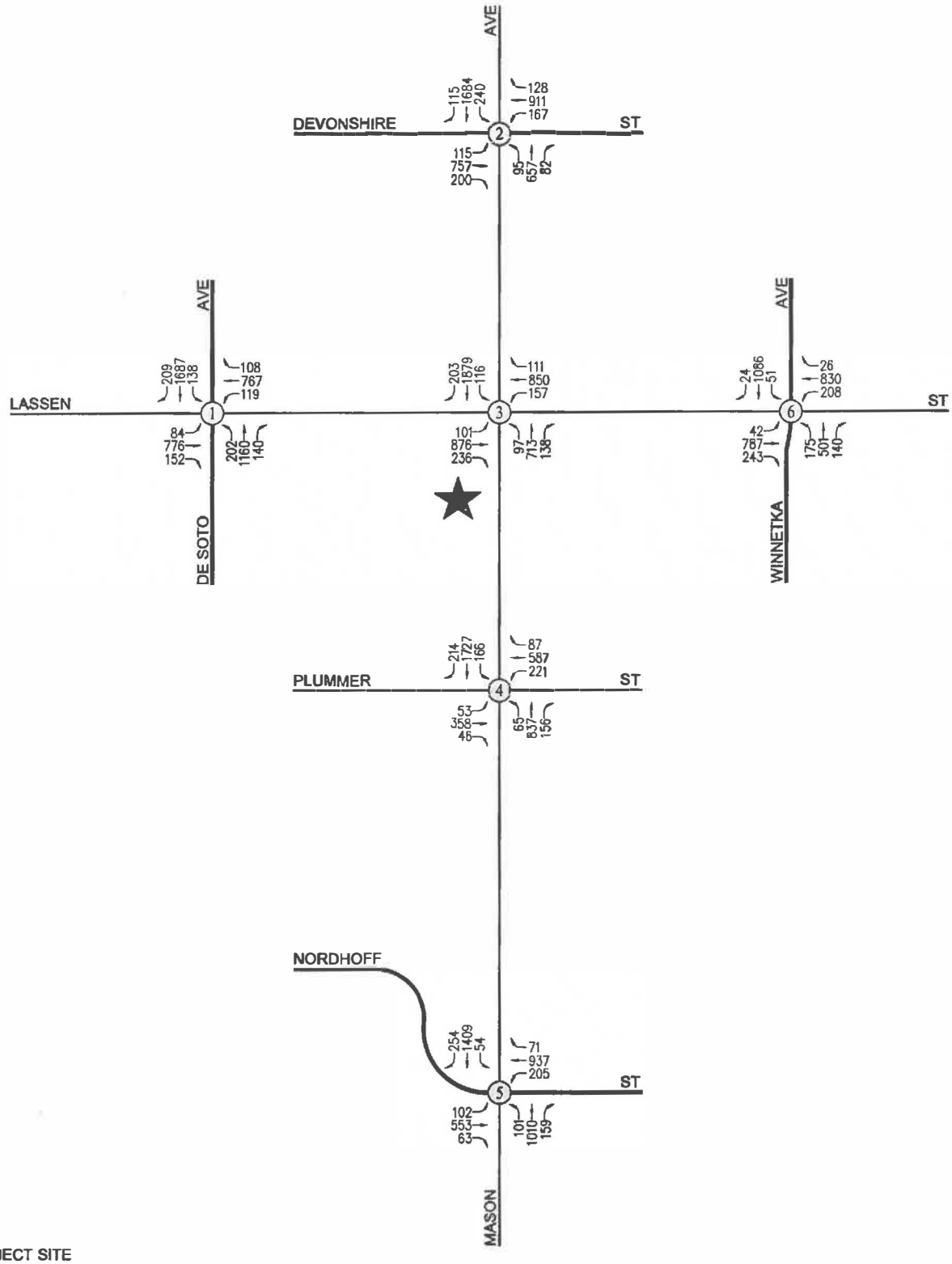


Source: Linscott, Law & Greenspan, engineers. 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-15
Future Cumulative Baseline Traffic Volumes
Weekday PM Peak Hour

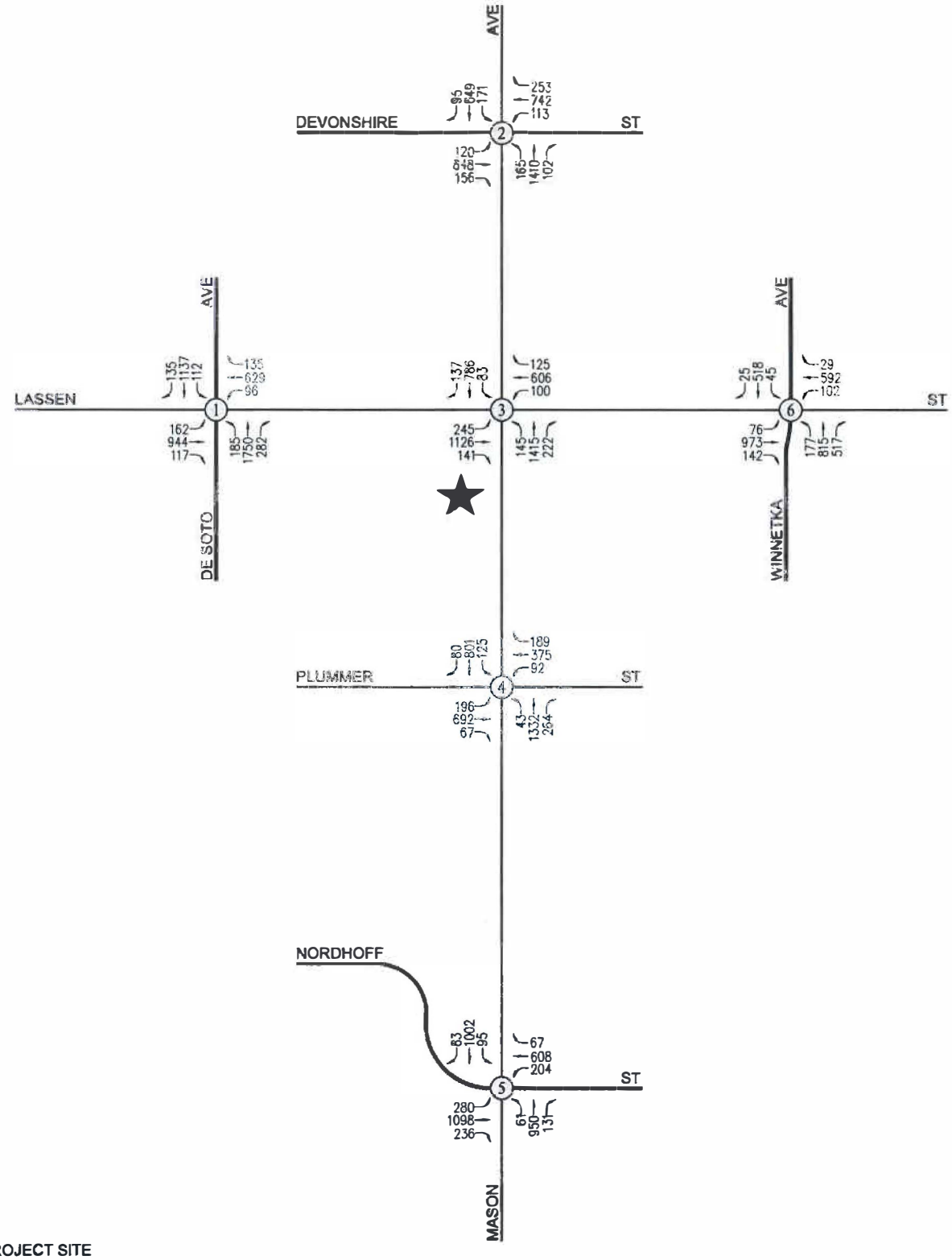


Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-16
Future Cumulative with Project Traffic Volumes
Weekday AM Peak Hour



Source: Linscott, Law & Greenspan, engineers, 2016.

Not to Scale

CAJA Environmental Services, LLC

Figure IV-17
Future Cumulative with Project Traffic Volumes
Weekday PM Peak Hour

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 count congestion management agency for designated roads or highways?

Less Than Significant Impact. The traffic impact guidelines of the 2010 Congestion Management Program (CMP) for Los Angeles County require analysis of all CMP arterial monitoring locations where a project could add a total of 50 or more trips during either peak hour. Additionally, all freeway monitoring locations where a project could add 150 or more trips in either direction during the peak hours are to be analyzed.

Intersections

The following CMP intersection monitoring location in the Project site vicinity has been identified:

- No. 64 Topanga Canyon Boulevard/Devonshire Street

The CMP Traffic Impact Analysis (TIA) guidelines require that intersection monitoring locations must be examined if a project will add 50 or more trips during either the AM or PM weekday peak hours. The Project would not add 50 or more trips during either the AM or PM weekday peak hours (i.e., of adjacent street traffic) at the CMP monitoring intersections in the Project site vicinity listed above. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required. No significant impacts related to CMP intersection monitoring locations would occur as a result of the Project.

Freeways

The following CMP freeway monitoring location has been identified in the Project site vicinity:

- No. 1051 SR-118 Freeway at LA/Ventura County Line

The CMP TIA guidelines require that freeway monitoring locations must be examined if a project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The Project would not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to CMP freeway monitoring locations listed above Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required. No significant impacts related to CMP freeway monitoring locations would occur as a result of the Project.

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 Project includes development of a hotel, retail, and restaurant buildings, reaching approximately 54 feet in height, a height that is within the height range of the existing buildings within the Project area. The Project site is not located near any airports. Thus, the Project would not 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. Therefore, no impacts related to this issue would occur.

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

Less Than Significant Impact. In the existing condition, five separate driveways are located off the west side of Mason Avenue at the Project site, and one driveway to the Project site is located off the south side of Lassen Street (six total driveways). As part of the Project, these driveways would be removed and replaced with five driveways, described as follows:

- *Mason Avenue Project Driveways:*

  The three Mason Avenue site driveways are proposed on the west side of Mason Avenue. The three Mason Avenue site driveways are proposed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

- *Lassen Street Project Driveways:*

  The two Lassen Street site driveways are proposed on the south side of Lassen Street. The westerly Lassen Street driveway is proposed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements). The easterly Lassen Street driveway is assumed to accommodate right-turn vehicular ingress and egress only (i.e., left-turn ingress and egress traffic movements would not be permitted).

The sidewalk along Mason Avenue and Lassen Street would be continual along the entire Project site frontage. The Project does not include development of any roadways or intersection and would not include the use of farm equipment. Therefore, Project impacts related to hazardous roadway features would be less than significant.

e) Would the project result in inadequate emergency access?

Less Than Significant Impact. All ingress/egress associated with the Project would be designed and constructed in conformance to all applicable City Building and Safety Department and City Fire Department standards and requirements for design and construction. Therefore, the Project would not result in any significant impacts related to emergency access.

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

Less Than Significant Impact. As required by the *2010 Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the Project on transit service. As discussed, existing transit service is provided in the vicinity of the proposed Chatsworth Hotel Project.

The Project trip generation, as shown on Table IV-39, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the Project is forecast to generate demand for 17 transit trips during the AM peak hour and 13 transit trips during the PM peak hour. Over a 24-hour period, the Project is forecast to generate demand for 183 daily transit trips. The calculations are as follows:

- AM Peak Hour = 345 × 1.4 × 0.035 = 17 Transit Trip
- PM Peak Hour = 257 × 1.4 × 0.035 = 13 Transit Trips
- Daily Trips = 3,715 × 1.4 × 0.035 = 183 Transit Trips

As shown on Table IV-35, nine transit lines are within radius of the Project site. As outlined on Table IV-35, under the "No. of Buses/Trains During Peak Hour" column, these nine transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) generally 36 buses/trains during the AM peak hour and 27 buses/trains during the PM peak hour. Thus, based on the above calculated AM and PM peak-hour trips, this would correspond to an insignificant number of additional Project-generated transit trips per bus/train. It is anticipated that the existing transit service in the Project area would adequately accommodate the increase of Project-generated transit trips. Therefore, Project impacts related to transit would be less than significant.

Traffic Signal Analysis

To respond LADOT's traffic assessment letter, a traffic signal warrant analysis has been prepared. While the LADOT letter references the Project's middle driveway, a traffic signal warrants analysis for each of the Project's three driveways on Mason Avenue is provided below. The traffic signal warrant analysis was prepared based on criteria set forth in Chapter 4C of the *Manual on Uniform Traffic Control Devices (MUTCD)*. Warrant No. 2 (Four Hour Vehicular Volume) and Warrant No. 3 (Peak Hour Volume) traffic signal warrants were prepared. The traffic signal warrant calculations were based on future forecast cumulative plus Project traffic volumes along all approaches.

Warrant 2: Four Hour Vehicular Volume Warrant

The Four Hour Vehicular Volume Warrant is intended for application at locations where a large volume of traffic along a major street occurs during any four one-hour periods of a day. Warrant No. 2 is not satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for only one point in Figure 4C-2 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 400 vehicles per hour while the lower threshold for a minor street with one approach lane is 80 vehicles per hour.

The plotted point for the Four Hour Vehicular Volume is only above the applicable curve for future with Project conditions for the Mason Avenue/Northerly Mason Avenue Project Driveway intersection twice. For the remaining two Mason Avenue/Project Driveway intersections, all four plotted points for the Four Hour Vehicular Volume fall below the applicable curve for future with project conditions. Therefore, Warrant No. 2 is not satisfied for any of the three Mason Avenue Project driveways under future with Project conditions.

Warrant 3: Peak Hour Volume Warrant

The Peak Hour Volume Warrant is applied for land uses that attract or discharge large numbers of vehicles over a short period of time. Warrant No. 3 is satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 500 vehicles per hour while the lower threshold for a minor street approach with one lane is 100 vehicles per hour.

The plotted point for the peak hour falls below the applicable curve for future with project conditions for all three Mason Avenue/Project Driveway intersections. Therefore, Warrant No. 3 is not satisfied for any of the three Mason Avenue Project driveways under future with Project conditions.

Mitigation Measures (Transportation/Traffic)

To reduce the Project's traffic impact (Project-specific and cumulative) to less than significant, implementation of Mitigation Measure 16-1 is required. As shown in column [5] of Table IV-37, Mitigation Measure 16-1 would reduce the Project's impacts to less than significant at the one impacted intersection (Int. No. 3: Mason Avenue/Lassen Street) during all time periods.

16-1: **Mason Avenue/Lassen Street** - Prior to issuance of a Certificate of Occupancy, the Project Applicant shall restripe the eastbound Lassen Street approach to the Mason Avenue intersection within the existing roadway width to provide one left-turn lane, two through lanes, and one right-turn lane and shall change the existing traffic signal equipment to accommodate the changed lane configuration.

16-2: In accordance with LADOT's requirements, the Project Applicant shall implement the following:

- Prior to issuance of any construction-related permit, the Project Applicant shall submit a construction work site traffic control plan to LADOT for review and approval. The plan shall show the location(s) of any roadway or sidewalk closures, traffic detours, haul routes, hours of construction, protective devices, warning signs, and access to abutting properties. All construction-related traffic shall be restricted to off-peak hours.

- Prior to issuance of a building permit, the Project Applicant shall check with the City's Bureau of Engineering Land Development Group to determine the specific highway dedication, street widening, and/or sidewalk requirements for the Project.
- The Project Applicant shall check with the City's Department of Building and Safety to confirm the number of Code-required parking spaces for the Project.
- The southerly one-way ingress driveway on Mason Avenue shall require a covenant and agreement between the Project Applicant and the neighbor property owner.
- Final LADOT approval of driveway dimensions, access, and circulation schemes shall be obtained from prior to issuance of any associated building permits.
- In order to minimize and prevent last minute building design changes, the Project Applicant shall contact LADOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans.
- A minimum 40-foot reservoir space between the new property line and the first parking stall and/or security gate shall be provided or to the satisfaction of LADOT.
- All truck loading and unloading shall take place onsite with no vehicles backing into the street. The loading/unloading areas shall be shown clearly on the Project site plans.
- All proposed two-way driveways shall be 30 feet wide, exclusive of side slope or to the satisfaction of LADOT.

Cumulative Impacts

Cumulative traffic impacts were addressed previously under "Future Cumulative With Project Conditions." As shown on Table IV-37, with implementation of Mitigation Measure 16-1, cumulative traffic impacts would be less than significant.

17. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Less Than Significant Impact. The Project site is fully developed. Based on a records search conducted by the South Central Coast Information Center (refer to Appendix C), no archaeological sites have been recorded within the Project site, and no archaeological resources have been recorded within 0.5-mile radius of the Project site. However, it is possible that unknown archaeological resources could exist at the Project site, given that significant archaeological resources have been identified in the Los Angeles area. As such, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find shall stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. However, construction activities could continue in other areas of the Project site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law. Through compliance with these requirements, potential Project impacts to unknown archaeological (tribal) resources would be less than significant.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant With Mitigation Incorporated. Pursuant to AB 52, the Department of City Planning notified Native American tribes as to the Project with a 30-day comment period on March 2, 2017. In a letter dated March 24, 2017 (refer to Appendix C), the Gabrieleño Band of Mission Indians -- Kizh Nation requested consultation with the City to discuss mitigation measures (monitoring) to be implemented during the Project's ground-disturbing activities. The City consulted with the Nation on April 13, 2017, and Mitigation Measure 17-1 (listed below) has been included in this MND as a result.

With implementation of this mitigation measure, Project impacts related to tribal cultural resources would be less than significant.

Mitigation Measures (Tribal Cultural Resources)

17-1: During the course of any ground disturbance activities, the applicant, or their agent, shall retain a professional Native American monitor(s). Ground disturbance activities shall include the following: excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, pounding posts, augering, backfilling, blasting, stripping topsoil or a similar activity. Monitoring of the project site during ground disturbance activities shall comply with the following:

a. The Project Applicant, or their agent, shall obtain a professional Native American monitor, or monitors, by contacting the Gabrieleno Band of Mission Indians. Prior to the issuance of a grading permit, evidence shall be provided to the Department of City Planning that monitor(s) have been obtained;

b. A monitor shall be secured for each grading unit. In the event that there are simultaneous grading units operating at the same time, there shall be one monitor per grading unit;

c. In the event that subsurface archaeological resources, human remains, or other tribal cultural resources are encountered during the course of ground disturbance activities, all such activities shall temporarily cease on the project site until the archaeological or other tribal cultural resources are assessed and subsequent recommendations are determined by a qualified archaeologist. In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, including the required notification to the County Coroner and the Native American Heritage Commission;

d. In the event that subsurface resources are encountered during the course of ground disturbance activities, the qualified archaeologist on site shall specify a radius around where resources were encountered to protect such resources until the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 have been fulfilled. Project activities may continue outside of the designated radius area.

e. Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC).

Cumulative Impacts

Refer to discussion of cumulative impacts related to parks and recreational facilities under response to Checklist Issue 5.

18. UTILITIES AND SERVICE SYSTEMS

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

Less Than Significant Impact. The Project Site is located within the service area of the Hyperion Treatment Plant (the "HTP"), which has been designed to treat 450 million gallons per day (mgd) to full secondary treatment. Full secondary treatment prevents virtually all particles suspended in effluent from being discharged into the Pacific Ocean and is consistent with the Los Angeles Regional Water Quality Control Board's (the "LARWQCB") discharge policies for the Santa Monica Bay. The HTP currently treats an average daily flow of approximately 362 mgd. Thus, there is approximately 88 mgd available capacity.

The Project would generate a net increase of approximately 45,766 gallons of wastewater per day (or 0.04 mgd) (refer to Table IV-41).[76] With a remaining daily capacity of 88 mgd, the HTP would have adequate capacity to serve the Project. Therefore, Project impacts related to wastewater treatment would be less than significant.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could increase the need for wastewater treatment. The remaining treatment capacity of the HTP (88 mgd) would accommodate the wastewater treatment requirements of the related projects. As discussed previously, the Project would create the need for a fraction of one percent of the remaining capacity of the HTP, and would not result in any significant impacts related to sewer treatment. No new or upgraded treatment facilities would be required. Therefore, cumulative impacts related to wastewater treatment would be less than significant.

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[76] *This conservatively assumes the Project's wastewater generation would equal its water consumption.*

Table IV-41
Estimated Water Consumption and Wastewater Generation[1]

Land Uses	Size	Water Consumption/ Wastewater Generation Rate[2]	Total (gpd)
Existing to be Removed			
Auto Care Center	1,032 sf	0.08 gpd/sf	83
RV/Boat Storage	19,569 sf	0.02 gpd/sf	392
Retail	23,820 sf	0.08 gpd/sf	1,906
		Total Existing	*2,381*
Proposed Land Uses			
Hotel	124 rooms	130 gpd/room	16,120
Fitness	19,569 sf	0.8 gpd/sf	16,103
Retail	16,845 sf	0.08 gpd/sf	1,360
Restaurant	729 seats[3]	20 gpd/seat	14,580
		Subtotal Project	*48,163*
		Less Existing	-2,381
		Net Increase	**45,766**

sf = square feet *gpd = gallons per day*

1 *Assumes wastewater generation equals water consumption.*
2 *Source: City of Los Angeles Bureau of Sanitation, Sewer Generation Rates Table, March 20, 2002. This rate does not assume the effectiveness of any current water conservation measures that are required in the City.*
3 *Assumes 25 square feet per seat.*

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. The LADWP owns and operates the Los Angeles Aqueduct Filtration Plant (the "LAAFP") located in the Sylmar community of the City. The LAAFP treats City water prior to distribution throughout LADWP's Central Water Service Area. The designated treatment capacity of the LAAFP is 600 mgd, with an average plant flow of 550 mgd during the summer months and 450 mgd in the non-summer months. Thus, the facility has between approximately 50 to 150 mgd of remaining capacity depending on the season.

As shown on Table IV-41, the Project would consume a net increase of approximately 45,766 gallons of water per day (or 0.04 mgd). With the remaining capacity of approximately 50 to 150 mgd, the LAAFP would have adequate capacity to serve the Project. Therefore, Project impacts related to water treatment would be less than significant.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could increase the need for water treatment. The remaining treatment capacity of the LAAFP (50 to 150 mgd) would accommodate the wastewater treatment requirements of the related projects. As discussed previously, the Project would create the need for a fraction of one percent of the remaining capacity of the LAAFP, and would not result in any significant impacts related to water treatment. No new or upgraded treatment facilities would be required. Therefore, cumulative impacts related to water treatment would be less than significant.

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

Less Than Significant Impact. As discussed in response to Checklist Question 9(e), the Project would not exceed the capacity of the existing or planning drainage system. Therefore, Project impacts related to storm drain capacity would be less than significant.

Cumulative Impacts

Refer to the discussion of cumulative impacts under response to Checklist Question 9.

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

Less Than Significant Impact. As shown on Table IV-41, the Project would consume a net increase of approximately 45,766 gallons of water per day (or 0.04 mgd). According to the Los Angeles Department of Water and Power (LADWP), if a project that is consistent with the City's General Plan, the projected water demand associated with that project is considered to be accounted for in the most recently adopted Urban Water Management Plan (UWMP), which is prepared by the LADWP to ensure that existing and projected water demand within its service area can be accommodated.[77] As discussed previously in response to Checklist Question 10(b), the Project is consistent with the City's General Plan land use designation for the Project site. Thus, the Project's demand for water could be accommodated by LADWP's existing and projected water supplies. As such, the Project would not require new or additional water supply or entitlements. Therefore, Project impacts related to water supply would be less than significant.

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[77] *LADWP, 2011 UWMP, page 249.*

Cumulative Impacts

As discussed previously, the Project would result in a net water consumption increase of approximately 45,766 gallons of water per day (or 0.04 mgd). Implementation of the related projects listed on Table IV-40 could result in a net increase in water consumption within LADWP's service area. Similar to the Project, the water supply needs of those related projects that are consistent with the City's General Plan have been accounted for in the most recently adopted UWMP. However, the applicants of all projects within LADWP's service area would be required to consult with LADWP to determine the specific water supply needs of the project, appropriate water conservation measures to minimize water usage, and LADWP's ability to serve the project. Through this process, cumulative impacts related to water supply would be less than significant.

e) Would the project result in a determination by the wastewater treatment provider which 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?

Less Than Significant Impact. As discussed in response to Checklist Question 17(a), with a remaining daily capacity of 88 mgd, the HTP would have adequate capacity to serve the Project. Therefore, Project impacts related to wastewater treatment would be less than significant.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Forty three percent of the waste generated in the City is disposed of at the Sunshine Canyon City/County Landfill (Sunshine Canyon Landfill), with 20 percent to Chiquita Canyon Landfill, and the remaining amounts sent to other landfills, recycling, refuse-to-energy, or resource recovery facilities.[78] Sunshine Canyon Landfill has a remaining permitted capacity of approximately 64.6 million tons (or 87.4 cubic yards) and a maximum permitted daily capacity of 12,100 tons.[79] Sunshine Canyon Landfill accepts approximately 7,582 tons of solid waste.[80] Thus, Sunshine Canyon Landfill has a remaining daily capacity intake of approximately 4,518 tons of solid waste per day.

As shown on Table IV-42 it is estimated the Project would generate a net total of approximately 0.14 tons of solid waste per day. This total is a conservative (worst-case scenario) and does not account for the effectiveness of recycling efforts, which the Project would be required by the City to implement.

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[78] *Countywide Integrated Waste Management Plan 2014 Annual Report, County of Los Angeles Department of Public Works, December 2015.*

[79] *Ibid.*

[80] *Ibid.*

Table IV-42
Estimated Solid Waste Generation

Land Uses	Size	Solid Waste Generation Rate[1]	Total (tpd)
Existing to be Removed			
Auto Care Center	1,032 sf	0.005 lb/sf/day	0.003
RV/Boat Storage	19,569 sf	0.005 lb/sf/day	0.05
Retail	23,820 sf	0.005 lb/sf/day	0.06
		Total Existing	*0.11*
Proposed Land Uses			
Hotel	124 rooms	2.0 lb/room/day	0.124
Fitness	19,569 sf	0.005 lb/sf/day	0.05
Retail	16,845 sf	0.005 lb/sf/day	0.04
Restaurant	18,226 sf	0.005 lb/sf/day	0.04
		Subtotal Project	*0.25*
		Less Existing	-0.11
		Net Increase	**0.14**

tpd = tons per day *sf = square feet*

[1] *http://www.calrecycle.ca.gov/wastechar/wastegenrates/*

With a remaining daily intake capacity of approximately 4,518 tons of solid waste per day, Sunshine Canyon Landfill could accommodate the Project's approximately net increase of 0.14 tons of solid waste per day. Further, pursuant to AB 939, each city and county in the state must divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. The City is on track toward its goal to achieve a 90 percent diversion by 2025.[81][82] Therefore, Project impacts related to solid waste would be less than significant.

Cumulative Impacts

Implementation of the related projects listed on Table IV-40 could increase the need for landfill capacity. However, all development in the City is required to comply with the City's Curbside Recycling Program and the Construction and Demolition Waste Recycling Ordinance to minimize the amount of solid waste generated by the development and the need for landfill capacity. As discussed previously, the landfills serving the Project area have available capacity. The Project would create a demand for less than a fraction of one percent of the remaining landfill capacity serving the Project area and would not result in

[81] *Zero Waste Progress Report, City of Los Angeles, March 2013, http://www.forester.net/pdfs/City_of_LA_Zero_Waste_Progress_Report.pdf, November 2016.*

[82] *City of Los Angeles, Department of Public Works, A Five-Year Strategic Plan, Fiscal Years 2012/13-2016/17, http://dpw.lacounty.gov/services/aboutDPW/strategicPlan.pdf, November 2016.*

any significant impacts. Therefore, cumulative impacts related to landfill capacity would be less than significant.

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

Less Than Significant Impact. The Project would be required to comply with all applicable federal, state, and local statutes and regulations, including the City's Curbside Recycling Program and the Construction and Demolition Waste Recycling Ordinance related to solid waste generation, and no significant impacts related to this issue would occur.

19. 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?

Less Than Significant With Mitigation Incorporated. For the reasons stated in this Initial Study, with implementation of mitigation measures identified in this Initial Study, the Project would not 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.

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. For the reasons stated in this Initial Study, the Project would not result in any significant impacts would not have the potential to contribute to significant cumulative impacts.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation Incorporated. For the reasons stated in this Initial Study, the Project would not cause substantial adverse effects on human beings, either directly or indirectly.

V. PREPARERS OF THE INITIAL STUDY AND PERSONS CONSULTED

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Thousand Oaks, CA 91361

Geosynetec Consultants
1111 Broadway, 6th Floor
Oakland, CA 94607

Geoenviro Services, Inc.
PO Box 7330
Ventura, CA 93606

Geotechnical Consultant

Krazan & Associates, Inc.
1100 Olympic Drive, Suite 103
Corona, CA 92881

Tree Consultant

The Urban Lumberjack
5937 Great Oak Circle
Los Angeles, CA 90042
Steve Marshall

A. TREE SURVEY

9-1-2016

PROTECTED TREE SURVEY AND INDEX OF TREES
20504, 20524 LASSEN
9733, 9755, 9825, 9835 MASON

To Whom It May Concern:

Please find enclosed an index of the trees located on the above-referenced properties which are contemplated for development.

Crucially, there are no trees which qualify as "Protected" under City of Los Angeles Ordinance 177404.

The trees located onsite are sketched on the enclosed map and given a letter designation. The letters run from East to West with letters A – V designating trees planted outside the fence and near the sidewalk with letters AA – AH designating trees within the fence. Those letters are assigned from East to West and North to South.

The letters they are assigned reference those individual specimen in the body of the index. Spread of canopy is designated by North/South and East/West reaches and such designations are along the widest dimensions of the canopies rather than along exact compass orientation.

To the best of my understanding, all the trees in the index are slated for removal.

Please call if I may provide additional information and thanks for your time and attention.

Sincerely yours,

Steve Marshall
The Urban Lumberjack LLC

The Urban Lumberjack • Quality Tree Care
5937 Great Oak Circle, Los Angeles, CA 90042
(323) 664-9473 • www.theurbanlumberjack.com
Insured • Bonded • CA Lic. #740167

Steve Marshall
ISA Certified Arborist
WE-8830A

Index Letter	Species	DBH	Height	Spread North/ South	Spread East/ West	Condition
A	*Melaleuca quinquenervia* (hereinafter "*Mq*")	5.0", 7.4"	27'	10'	9'	One trunk dead, other OK
B.	*Mq*	3.4", 5.5"	28'	6'	8'	Adequate
C.	*Mq*	6.2", 7.3"	28'	10'	14'	Adequate
D.	*Mq*	3.8", 6.0", 6.1"	30'	12'	7'	Adequate
E.	*Jacaranda mimosifolia*	10.1"	30'	16'	13'	Adequate
F.	*Jacaranda mimoifolia*	11.8"	28'	26'	15'	Adequate
G.	*Mq*	4.5", 6.9", 8.8", 9.3"	31'	11'	12'	Poor condition
H.	*Mq*	7.4", 7.4"	25'	8'	8'	Poor condition
I.	*Mq*	11.6"	29'	13'	11'	Struggling
J.	*Mq*	7.4", 7.6"	26'	11'	10'	Struggling
K.	*Mq*	8.8"	25'	8'	6'	Mediocre
L.	*Mq*	5.9", 6.4"	25'	11'	10'	Adequate
M.	*Mq*	12.3"	27'	13'	11'	Adequate

Index	Species	DBH	Height	Spread North/ South	Spread East/ West	Condition
N.	*Mq*	4.1", 4.3", 7.2"	24'	17'	15'	Good Condition
O.	*Mq*	4.3", 10.2"	24'	7'	7'	Very poor condition
P.	*Mq*	4.2", 4.8", 5.9", 8.9"	25'	18'	16'	Robust
Q.	*Mq*	5.2", 6.3"	27'	10'	8'	Robust
R.	*Mq*	9.4"	30'	19'	11'	Robust
S.	*Mq*	6.9", 8.0"	28'	14'	9'	Robust
T.	*Mq*	4.2", 4.6"	22'	10'	8'	Robust
U.	*Mq*	7.8", 8.9"	26'	16'	15'	Robust
V.	*Mq*	9.2", 11.3"	25'	13'	9'	Robust
AA.	*Platenus hispanica*	12.9"	27'	19'	17'	Robust, topped below power lines
AB.	*Platenus hispanica*	25.2"	22'	35'	40'	Robust, topped below power lines
AC.	*Washingtonia robusta*	13.4"	51'			Indestructible as always
AD.	*Pinus pinea*	17.2"	34'	39'	38'	Robust

Index Letter	Species	DBH	Height	Spread North/ South	Spread East/ West	Condition
AE.	*Melia azedayach*	42.1"	31'	39'	21'	Thriving, signs of previous limb failures
AF.	*Washingtonia robusta*	12.5"	56'			Thriving
AG.	*Citirus sinensis*	6.4, 7.8, 8.8", 9.0", 10.9"	21'	18'	18'	Tough tree, in good shape
AH.	*Washingtonia robusta*	13.8"	52'			Thriving

B. AIR QUALITY MODELING RESULTS

9825 Mason Street Existing - Los Angeles-South Coast County, Annual

9825 Mason Street Existing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	1.03	1000sqft	0.06	1,032.00	0
User Defined Retail	20.13	User Defined Unit	3.00	20,125.00	0
Strip Mall	23.82	1000sqft	3.00	23,820.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2016
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

2.0 Emissions Summary

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	0.1834	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	3.1000e-004	2.8500e-003	2.3900e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	193.4764	193.4764	4.5600e-003	9.9000e-004	193.8845
Mobile	0.2568	1.0571	3.0173	6.6000e-003	0.4593	0.0106	0.4699	0.1232	9.9700e-003	0.1332	0.0000	605.9795	605.9795	0.0453	0.0000	607.1118
Waste						0.0000	0.0000		0.0000	0.0000	5.8746	0.0000	5.8746	0.3472	0.0000	14.5540
Water						0.0000	0.0000		0.0000	0.0000	0.5905	20.5577	21.1482	0.0611	1.5300e-003	23.1333
Total	**0.4405**	**1.0600**	**3.0203**	**6.6200e-003**	**0.4593**	**0.0108**	**0.4701**	**0.1232**	**0.0102**	**0.1334**	**6.4651**	**820.0148**	**826.4799**	**0.4582**	**2.5200e-003**	**838.6848**

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	0.1834	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	3.1000e-004	2.8500e-003	2.3900e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	193.4764	193.4764	4.5600e-003	9.9000e-004	193.8845
Mobile	0.2568	1.0571	3.0173	6.6000e-003	0.4593	0.0106	0.4699	0.1232	9.9700e-003	0.1332	0.0000	605.9795	605.9795	0.0453	0.0000	607.1118
Waste						0.0000	0.0000		0.0000	0.0000	5.8746	0.0000	5.8746	0.3472	0.0000	14.5540
Water						0.0000	0.0000		0.0000	0.0000	0.5905	20.5577	21.1482	0.0611	1.5300e-003	23.1333
Total	**0.4405**	**1.0600**	**3.0203**	**6.6200e-003**	**0.4593**	**0.0108**	**0.4701**	**0.1232**	**0.0102**	**0.1334**	**6.4651**	**820.0148**	**826.4799**	**0.4582**	**2.5200e-003**	**838.6848**

	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	N20	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**	**0.00**	**0.00**

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	0.2568	1.0571	3.0173	6.6000e-003	0.4593	0.0106	0.4699	0.1232	9.9700e-003	0.1332	0.0000	605.9795	605.9795	0.0453	0.0000	607.1118
Unmitigated	0.2568	1.0571	3.0173	6.6000e-003	0.4593	0.0106	0.4699	0.1232	9.9700e-003	0.1332	0.0000	605.9795	605.9795	0.0453	0.0000	607.1118

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	14.22	14.22	14.22	19,050	19,050
Strip Mall	485.93	485.93	485.93	924,524	924,524
User Defined Retail	68.83	68.83	68.83	265,840	265,840
Total	568.98	568.98	568.98	1,209,414	1,209,414

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	33.00	34.00	33.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
User Defined Retail	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994

Strip Mall	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994

5.0 Energy Detail

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	190.3790	190.3790	4.5000e-003	9.3000e-004	190.7686
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3790	190.3790	4.5000e-003	9.3000e-004	190.7686
NaturalGas Mitigated	3.1000e-004	2.8500e-003	2.3900e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0975	3.0975	6.0000e-005	6.0000e-005	3.1159
NaturalGas Unmitigated	3.1000e-004	2.8500e-003	2.3900e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.0975	3.0975	6.0000e-005	6.0000e-005	3.1159

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					
Automobile Care Center	18741.1	1.0000e-004	9.2000e-004	7.7000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0001	1.0001	2.0000e-005	2.0000e-005	1.0060
Strip Mall	39303	2.1000e-004	1.9300e-003	1.6200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.0974	2.0974	4.0000e-005	4.0000e-005	2.1098
User Defined Retail	0	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

Total		**3.1000e-004**	**2.8500e-003**	**2.3900e-003**	**2.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**3.0975**	**3.0975**	**6.0000e-005**	**6.0000e-005**	**3.1159**

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					
Automobile Care Center	18741.1	1.0000e-004	9.2000e-004	7.7000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0001	1.0001	2.0000e-005	2.0000e-005	1.0060
Strip Mall	39303	2.1000e-004	1.9300e-003	1.6200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.0974	2.0974	4.0000e-005	4.0000e-005	2.1098
User Defined Retail	0	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
Total		**3.1000e-004**	**2.8500e-003**	**2.3900e-003**	**2.0000e-005**		**2.2000e-004**	**2.2000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**3.0975**	**3.0975**	**6.0000e-005**	**6.0000e-005**	**3.1159**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	11671.9	6.5008	1.5000e-004	3.0000e-005	6.5141
Strip Mall	330145	183.8782	4.3400e-003	9.0000e-004	184.2545
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		**190.3790**	**4.4900e-003**	**9.3000e-004**	**190.7686**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	11671.9	6.5008	1.5000e-004	3.0000e-005	6.5141
Strip Mall	330145	183.8782	4.3400e-003	9.0000e-004	184.2545
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		**190.3790**	**4.4900e-003**	**9.3000e-004**	**190.7686**

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	0.1834	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Unmitigated	0.1834	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1625					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	**0.1834**	**1.0000e-005**	**5.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**0.0000**	**1.2000e-003**

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	0.0209					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1625					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	5.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	**0.1834**	**1.0000e-005**	**5.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1200e-003**	**1.1200e-003**	**0.0000**	**0.0000**	**1.2000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.1482	0.0611	1.5300e-003	23.1333
Unmitigated	21.1482	0.0611	1.5300e-003	23.1333

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.0969035 / 0.0593925	1.1010	3.1800e-003	8.0000e-005	1.2044
Strip Mall	1.76441 / 1.08141	20.0472	0.0580	1.4500e-003	21.9290
User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**21.1482**	**0.0611**	**1.5300e-003**	**23.1333**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.0969035 / 0.0593925	1.1010	3.1800e-003	8.0000e-005	1.2044
Strip Mall	1.76441 / 1.08141	20.0472	0.0580	1.4500e-003	21.9290

User Defined Retail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**21.1482**	**0.0611**	**1.5300e-003**	**23.1333**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.8746	0.3472	0.0000	14.5540
Unmitigated	5.8746	0.3472	0.0000	14.5540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	3.93	0.7978	0.0472	0.0000	1.9764
Strip Mall	25.01	5.0768	0.3000	0.0000	12.5776
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000

Total		**5.8746**	**0.3472**	**0.0000**	**14.5540**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	3.93	0.7978	0.0472	0.0000	1.9764
Strip Mall	25.01	5.0768	0.3000	0.0000	12.5776
User Defined Retail	0	0.0000	0.0000	0.0000	0.0000
Total		**5.8746**	**0.3472**	**0.0000**	**14.5540**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

9825 Mason Street Existing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	1.03	1000sqft	0.06	1,032.00	0
User Defined Retail	20.13	User Defined Unit	3.00	20,125.00	0
Strip Mall	23.82	1000sqft	3.00	23,820.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2016
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

2.0 Emissions Summary

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	lb/day										lb/day					
Area	1.0052	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105

Energy	1.7100e-003	0.0156	0.0131	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003		18.7088	18.7088	3.6000e-004	3.4000e-004	18.8200
Mobile	1.4804	5.5432	16.8563	0.0376	2.5735	0.0578	2.6313	0.6892	0.0546	0.7438		3,806.6831	3,806.6831	0.2753		3,813.5651
Total	**2.4873**	**5.5588**	**16.8741**	**0.0377**	**2.5735**	**0.0590**	**2.6325**	**0.6892**	**0.0558**	**0.7450**		**3,825.4018**	**3,825.4018**	**0.2757**	**3.4000e-004**	**3,832.3957**

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	lb/day										lb/day					
Area	1.0052	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105
Energy	1.7100e-003	0.0156	0.0131	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003		18.7088	18.7088	3.6000e-004	3.4000e-004	18.8200
Mobile	1.4804	5.5432	16.8563	0.0376	2.5735	0.0578	2.6313	0.6892	0.0546	0.7438		3,806.6831	3,806.6831	0.2753		3,813.5651
Total	**2.4873**	**5.5588**	**16.8741**	**0.0377**	**2.5735**	**0.0590**	**2.6325**	**0.6892**	**0.0558**	**0.7450**		**3,825.4018**	**3,825.4018**	**0.2757**	**3.4000e-004**	**3,832.3957**

	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	N20	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**	**0.00**	**0.00**

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	lb/day										lb/day					
Mitigated	1.4804	5.5432	16.8563	0.0376	2.5735	0.0578	2.6313	0.6892	0.0546	0.7438		3,806.6831	3,806.6831	0.2753		3,813.5651
Unmitigated	1.4804	5.5432	16.8563	0.0376	2.5735	0.0578	2.6313	0.6892	0.0546	0.7438		3,806.6831	3,806.6831	0.2753		3,813.5651

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	14.22	14.22	14.22	19,050	19,050
Strip Mall	485.93	485.93	485.93	924,524	924,524
User Defined Retail	68.83	68.83	68.83	265,840	265,840
Total	568.98	568.98	568.98	1,209,414	1,209,414

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15
User Defined Retail	16.60	8.40	6.90	33.00	34.00	33.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
User Defined Retail	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
Strip Mall	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994

5.0 Energy Detail

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	lb/day										lb/day					
NaturalGas Mitigated	1.7100e-003	0.0156	0.0131	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003		18.7088	18.7088	3.6000e-004	3.4000e-004	18.8200
NaturalGas Unmitigated	1.7100e-003	0.0156	0.0131	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003		18.7088	18.7088	3.6000e-004	3.4000e-004	18.8200

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	lb/day										lb/day					
Automobile Care Center	51.3455	5.5000e-004	5.0300e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004		6.0407	6.0407	1.2000e-004	1.1000e-004	6.0766
Strip Mall	107.679	1.1600e-003	0.0106	8.8700e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004		12.6682	12.6682	2.4000e-004	2.3000e-004	12.7435
User Defined Retail	0	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
Total		**1.7100e-003**	**0.0156**	**0.0131**	**9.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**		**18.7088**	**18.7088**	**3.6000e-004**	**3.4000e-004**	**18.8200**

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	lb/day										lb/day					

Automobile Care Center	0.0513455	5.5000e-004	5.0300e-003	4.2300e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004		6.0407	6.0407	1.2000e-004	1.1000e-004	6.0766
Strip Mall	0.107679	1.1600e-003	0.0106	8.8700e-003	6.0000e-005		8.0000e-004	8.0000e-004		8.0000e-004	8.0000e-004		12.6682	12.6682	2.4000e-004	2.3000e-004	12.7435
User Defined Retail	0	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
Total		**1.7100e-003**	**0.0156**	**0.0131**	**9.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**		**18.7088**	**18.7088**	**3.6000e-004**	**3.4000e-004**	**18.8200**

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	lb/day										lb/day					
Mitigated	1.0052	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105
Unmitigated	1.0052	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105

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	lb/day										lb/day					
Architectural Coating	0.1142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Landscaping	4.6000e-004	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105
Total	**1.0052**	**5.0000e-005**	**4.7100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.8400e-003**	**9.8400e-003**	**3.0000e-005**		**0.0105**

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	lb/day										lb/day					
Architectural Coating	0.1142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8905					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.6000e-004	5.0000e-005	4.7100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8400e-003	9.8400e-003	3.0000e-005		0.0105
Total	**1.0052**	**5.0000e-005**	**4.7100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.8400e-003**	**9.8400e-003**	**3.0000e-005**		**0.0105**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

9825 Mason Street Future

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	125.00	Room	1.00	181,500.00	0
Fast Food Restaurant with Drive Thru	6.40	1000sqft	0.50	6,400.00	0
Health Club	20.13	1000sqft	1.00	20,125.00	0
High Turnover (Sit Down Restaurant)	10.35	1000sqft	0.50	10,350.00	0
Fast Food Restaurant with Drive Thru	2.00	1000sqft	0.50	2,000.00	0
Parking Lot	283.00	Space	2.55	113,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2018
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Linscott Law & Greenspan "SWC Mason/Lassen Project Traffic Impact Study" October 2016

Vehicle Trips - Consultant assumptions

Construction Phase - Developer informaiton

Off-road Equipment -

Grading - Developer information

Demolition - Developer information

Trips and VMT - Developer information

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403 control efficiencies

Off-road Equipment - Consultant assumption

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	230.00	85.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	PhaseEndDate	6/22/2018	12/9/2017
tblConstructionPhase	PhaseEndDate	4/27/2018	10/8/2017
tblConstructionPhase	PhaseEndDate	4/28/2017	4/17/2017
tblConstructionPhase	PhaseEndDate	6/9/2017	5/15/2017
tblConstructionPhase	PhaseEndDate	5/25/2018	10/30/2017
tblConstructionPhase	PhaseEndDate	5/12/2017	6/10/2017
tblConstructionPhase	PhaseStartDate	5/26/2018	10/9/2017
tblConstructionPhase	PhaseStartDate	6/10/2017	6/11/2017
tblConstructionPhase	PhaseStartDate	5/13/2017	4/18/2017
tblConstructionPhase	PhaseStartDate	4/28/2018	9/21/2017
tblConstructionPhase	PhaseStartDate	4/29/2017	5/16/2017
tblGrading	AcresOfGrading	10.00	8.05
tblGrading	MaterialExported	0.00	7,000.00
tblLandUse	LotAcreage	4.17	1.00
tblLandUse	LotAcreage	0.46	1.00
tblLandUse	LotAcreage	0.15	0.50
tblLandUse	LotAcreage	0.24	0.50

tblLandUse	LotAcreage	0.05	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblVehicleTrips	ST_TR	722.03	211.79
tblVehicleTrips	ST_TR	158.37	87.13
tblVehicleTrips	ST_TR	8.19	6.99
tblVehicleTrips	SU_TR	542.72	211.79
tblVehicleTrips	SU_TR	131.84	87.13
tblVehicleTrips	SU_TR	5.95	6.99
tblVehicleTrips	WD_TR	496.12	211.79
tblVehicleTrips	WD_TR	32.93	22.60
tblVehicleTrips	WD_TR	127.15	87.13
tblVehicleTrips	WD_TR	8.17	6.99

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2017	48.8816	55.1870	44.7967	0.0844	18.2339	3.0233	20.6562	9.9752	2.8179	12.2037	0.0000	8,776.4267	8,776.4267	1.5576	0.0000	8,808.9177
Maximum	**48.8816**	**55.1870**	**44.7967**	**0.0844**	**18.2339**	**3.0233**	**20.6562**	**9.9752**	**2.8179**	**12.2037**	**0.0000**	**8,776.4267**	**8,776.4267**	**1.5576**	**0.0000**	**8,808.9177**

Mitigated 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	lb/day										lb/day					
2017	48.8816	55.1870	44.7967	0.0844	6.7942	3.0233	9.2165	3.7073	2.8179	5.9358	0.0000	8,776.4267	8,776.4267	1.5576	0.0000	8,808.9177
Maximum	**48.8816**	**55.1870**	**44.7967**	**0.0844**	**6.7942**	**3.0233**	**9.2165**	**3.7073**	**2.8179**	**5.9358**	**0.0000**	**8,776.4267**	**8,776.4267**	**1.5576**	**0.0000**	**8,808.9177**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**62.74**	**0.00**	**55.38**	**62.83**	**0.00**	**51.36**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	lb/day										lb/day					
Area	4.9763	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045
Energy	0.2679	2.4353	2.0457	0.0146		0.1851	0.1851		0.1851	0.1851		2,922.3779	2,922.3779	0.0560	0.0536	2,939.7442
Mobile	10.6345	39.6753	99.8326	0.2489	13.6804	0.2992	13.9795	3.7377	0.2813	4.0190		25,262.4106	25,262.4106	1.7040		25,305.0094
Total	**15.8786**	**42.1110**	**101.9245**	**0.2635**	**13.6804**	**0.4844**	**14.1648**	**3.7377**	**0.4666**	**4.2043**		**28,184.8863**	**28,184.8863**	**1.7602**	**0.0536**	**28,244.8581**

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	lb/day										lb/day					
Area	4.9763	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045
Energy	0.2679	2.4353	2.0457	0.0146		0.1851	0.1851		0.1851	0.1851		2,922.3779	2,922.3779	0.0560	0.0536	2,939.7442
Mobile	10.6345	39.6753	99.8326	0.2489	13.6804	0.2992	13.9795	3.7377	0.2813	4.0190		25,262.4106	25,262.4106	1.7040		25,305.0094
Total	**15.8786**	**42.1110**	**101.9245**	**0.2635**	**13.6804**	**0.4844**	**14.1648**	**3.7377**	**0.4666**	**4.2043**		**28,184.8863**	**28,184.8863**	**1.7602**	**0.0536**	**28,244.8581**

	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	N20	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**	**0.00**	**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	4/3/2017	4/17/2017	5	11	
2	Grading	Grading	4/18/2017	5/15/2017	5	20	
3	Site Preparation	Site Preparation	5/16/2017	6/10/2017	5	19	
4	Building Construction	Building Construction	6/11/2017	10/8/2017	5	85	
5	Paving	Paving	9/21/2017	10/30/2017	5	28	
6	Architectural Coating	Architectural Coating	10/9/2017	12/9/2017	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.05

Acres of Paving: 2.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 330,563; Non-Residential Outdoor: 110,188; Striped Parking Area: 6,792

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Architectural Coating	1	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	140.00	55.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	875.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

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	lb/day										lb/day					
Fugitive Dust					7.4400e-003	0.0000	7.4400e-003	1.1300e-003	0.0000	1.1300e-003			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**	**7.4400e-003**	**2.1935**	**2.2009**	**1.1300e-003**	**2.0425**	**2.0436**		**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

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	lb/day										lb/day					
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
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1677**	**1.5600e-003**	**0.1692**	**0.0445**	**1.4400e-003**	**0.0459**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

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	lb/day										lb/day					
Fugitive Dust					2.7600e-003	0.0000	2.7600e-003	4.2000e-004	0.0000	4.2000e-004			0.0000			0.0000
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425	0.0000	3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**	**2.7600e-003**	**2.1935**	**2.1962**	**4.2000e-004**	**2.0425**	**2.0429**	**0.0000**	**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

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	lb/day										lb/day					
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
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1006	1.5600e-003	0.1022	0.0280	1.4400e-003	0.0295		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1006**	**1.5600e-003**	**0.1022**	**0.0280**	**1.4400e-003**	**0.0295**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

3.3 Grading - 2017

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	lb/day										lb/day					
Fugitive Dust					6.4885	0.0000	6.4885	3.3623	0.0000	3.3623			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352		3,037.9107	3,037.9107	0.9308		3,061.1809
Total	**3.0705**	**33.8868**	**17.1042**	**0.0297**	**6.4885**	**1.7774**	**8.2660**	**3.3623**	**1.6352**	**4.9976**		**3,037.9107**	**3,037.9107**	**0.9308**		**3,061.1809**

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	lb/day										lb/day					
Hauling	0.6913	20.5046	4.3340	0.0514	1.1468	0.1182	1.2651	0.3143	0.1131	0.4274		5,545.1784	5,545.1784	0.3608		5,554.1985
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.7851**	**20.5766**	**5.2574**	**0.0534**	**1.3145**	**0.1198**	**1.4343**	**0.3588**	**0.1146**	**0.4733**		**5,738.5160**	**5,738.5160**	**0.3688**		**5,747.7368**

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	lb/day										lb/day					
Fugitive Dust					2.4040	0.0000	2.4040	1.2457	0.0000	1.2457			0.0000			0.0000
Off-Road	3.0705	33.8868	17.1042	0.0297		1.7774	1.7774		1.6352	1.6352	0.0000	3,037.9107	3,037.9107	0.9308		3,061.1809
Total	**3.0705**	**33.8868**	**17.1042**	**0.0297**	**2.4040**	**1.7774**	**4.1814**	**1.2457**	**1.6352**	**2.8810**	**0.0000**	**3,037.9107**	**3,037.9107**	**0.9308**		**3,061.1809**

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	lb/day										lb/day					
Hauling	0.6913	20.5046	4.3340	0.0514	0.7477	0.1182	0.8659	0.2163	0.1131	0.3295		5,545.1784	5,545.1784	0.3608		5,554.1985
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1006	1.5600e-003	0.1022	0.0280	1.4400e-003	0.0295		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.7851**	**20.5766**	**5.2574**	**0.0534**	**0.8483**	**0.1198**	**0.9681**	**0.2444**	**0.1146**	**0.3589**		**5,738.5160**	**5,738.5160**	**0.3688**		**5,747.7368**

3.4 Site Preparation - 2017

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	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3272	46.1877	18.6677	0.0318		2.4207	2.4207		2.2271	2.2271		3,258.4201	3,258.4201	0.9984		3,283.3795
Total	**4.3272**	**46.1877**	**18.6677**	**0.0318**	**18.0663**	**2.4207**	**20.4870**	**9.9307**	**2.2271**	**12.1578**		**3,258.4201**	**3,258.4201**	**0.9984**		**3,283.3795**

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	lb/day										lb/day					
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
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1677**	**1.5600e-003**	**0.1692**	**0.0445**	**1.4400e-003**	**0.0459**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

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	lb/day										lb/day					
Fugitive Dust					6.6936	0.0000	6.6936	3.6793	0.0000	3.6793			0.0000			0.0000
Off-Road	4.3272	46.1877	18.6677	0.0318		2.4207	2.4207		2.2271	2.2271	0.0000	3,258.4201	3,258.4201	0.9984		3,283.3795
Total	**4.3272**	**46.1877**	**18.6677**	**0.0318**	**6.6936**	**2.4207**	**9.1143**	**3.6793**	**2.2271**	**5.9064**	**0.0000**	**3,258.4201**	**3,258.4201**	**0.9984**		**3,283.3795**

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	lb/day										lb/day					
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
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

Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1006	1.5600e-003	0.1022	0.0280	1.4400e-003	0.0295		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1006**	**1.5600e-003**	**0.1022**	**0.0280**	**1.4400e-003**	**0.0295**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

3.5 Building Construction - 2017

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	**3.1149**	**26.5546**	**18.1825**	**0.0269**		**1.7879**	**1.7879**		**1.6791**	**1.6791**		**2,650.9797**	**2,650.9797**	**0.6531**		**2,667.3078**

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	lb/day										lb/day					
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
Vendor	0.2871	7.1712	2.0404	0.0146	0.3521	0.0601	0.4122	0.1014	0.0575	0.1588		1,554.2611	1,554.2611	0.1075		1,556.9479
Worker	0.8755	0.6715	8.6185	0.0182	1.5649	0.0146	1.5794	0.4150	0.0134	0.4284		1,804.4846	1,804.4846	0.0749		1,806.3574
Total	**1.1626**	**7.8427**	**10.6589**	**0.0328**	**1.9170**	**0.0746**	**1.9916**	**0.5164**	**0.0709**	**0.5873**		**3,358.7457**	**3,358.7457**	**0.1824**		**3,363.3053**

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	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791	0.0000	2,650.9797	2,650.9797	0.6531		2,667.3078
Total	**3.1149**	**26.5546**	**18.1825**	**0.0269**		**1.7879**	**1.7879**		**1.6791**	**1.6791**	**0.0000**	**2,650.9797**	**2,650.9797**	**0.6531**		**2,667.3078**

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	lb/day										lb/day					
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
Vendor	0.2871	7.1712	2.0404	0.0146	0.2367	0.0601	0.2968	0.0731	0.0575	0.1305		1,554.2611	1,554.2611	0.1075		1,556.9479
Worker	0.8755	0.6715	8.6185	0.0182	0.9391	0.0146	0.9536	0.2614	0.0134	0.2748		1,804.4846	1,804.4846	0.0749		1,806.3574
Total	**1.1626**	**7.8427**	**10.6589**	**0.0328**	**1.1758**	**0.0746**	**1.2504**	**0.3345**	**0.0709**	**0.4053**		**3,358.7457**	**3,358.7457**	**0.1824**		**3,363.3053**

3.6 Paving - 2017

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	lb/day										lb/day					

Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665		2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.2386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1835**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**		**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

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	lb/day										lb/day					
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
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1677**	**1.5600e-003**	**0.1692**	**0.0445**	**1.4400e-003**	**0.0459**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

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	lb/day										lb/day					
Off-Road	1.9449	20.7178	15.0320	0.0228		1.1592	1.1592		1.0665	1.0665	0.0000	2,330.6461	2,330.6461	0.7141		2,348.4988
Paving	0.2386					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1835**	**20.7178**	**15.0320**	**0.0228**		**1.1592**	**1.1592**		**1.0665**	**1.0665**	**0.0000**	**2,330.6461**	**2,330.6461**	**0.7141**		**2,348.4988**

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	lb/day										lb/day					
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
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
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1006	1.5600e-003	0.1022	0.0280	1.4400e-003	0.0295		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1006**	**1.5600e-003**	**0.1022**	**0.0280**	**1.4400e-003**	**0.0295**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

3.7 Architectural Coating - 2017

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	lb/day										lb/day					
Archit. Coating	46.0969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733		281.4481	281.4481	0.0297		282.1909
Total	**46.4292**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**		**281.4481**	**281.4481**	**0.0297**		**282.1909**

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	lb/day											lb/day				
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
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
Worker	0.1751	0.1343	1.7237	3.6300e-003	0.3130	2.9100e-003	0.3159	0.0830	2.6900e-003	0.0857		360.8969	360.8969	0.0150		361.2715
Total	**0.1751**	**0.1343**	**1.7237**	**3.6300e-003**	**0.3130**	**2.9100e-003**	**0.3159**	**0.0830**	**2.6900e-003**	**0.0857**		**360.8969**	**360.8969**	**0.0150**		**361.2715**

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	lb/day										lb/day					
Archit. Coating	46.0969					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3323	2.1850	1.8681	2.9700e-003		0.1733	0.1733		0.1733	0.1733	0.0000	281.4481	281.4481	0.0297		282.1909
Total	**46.4292**	**2.1850**	**1.8681**	**2.9700e-003**		**0.1733**	**0.1733**		**0.1733**	**0.1733**	**0.0000**	**281.4481**	**281.4481**	**0.0297**		**282.1909**

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	lb/day										lb/day					
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
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
Worker	0.1751	0.1343	1.7237	3.6300e-003	0.1878	2.9100e-003	0.1907	0.0523	2.6900e-003	0.0550		360.8969	360.8969	0.0150		361.2715

Total	**0.1751**	**0.1343**	**1.7237**	**3.6300e-003**	**0.1878**	**2.9100e-003**	**0.1907**	**0.0523**	**2.6900e-003**	**0.0550**		**360.8969**	**360.8969**	**0.0150**		**361.2715**

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	lb/day										lb/day					
Mitigated	10.6345	39.6753	99.8326	0.2489	13.6804	0.2992	13.9795	3.7377	0.2813	4.0190		25,262.4106	25,262.4106	1.7040		25,305.0094
Unmitigated	10.6345	39.6753	99.8326	0.2489	13.6804	0.2992	13.9795	3.7377	0.2813	4.0190		25,262.4106	25,262.4106	1.7040		25,305.0094

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,355.46	1,355.46	1355.46	1,426,465	1,426,465
Fast Food Restaurant with Drive Thru	423.58	423.58	423.58	445,770	445,770
Health Club	454.83	420.01	537.94	987,524	987,524
High Turnover (Sit Down Restaurant)	901.80	901.80	901.80	1,228,994	1,228,994
Hotel	873.75	873.75	873.75	2,084,917	2,084,917
Parking Lot	0.00	0.00	0.00		
Total	4,009.41	3,974.59	4,092.52	6,173,671	6,173,671

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

Fast Food Restaurant with Drive Thru	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Fast Food Restaurant with Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Health Club	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
High Turnover (Sit Down Restaurant)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Fast Food Restaurant with Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Parking Lot	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

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	lb/day										lb/day					
NaturalGas Mitigated	0.2679	2.4353	2.0457	0.0146		0.1851	0.1851		0.1851	0.1851		2,922.3779	2,922.3779	0.0560	0.0536	2,939.7442
NaturalGas Unmitigated	0.2679	2.4353	2.0457	0.0146		0.1851	0.1851		0.1851	0.1851		2,922.3779	2,922.3779	0.0560	0.0536	2,939.7442

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	lb/day										lb/day					
Fast Food Restaurant with	4049.88	0.0437	0.3971	0.3335	2.3800e-003		0.0302	0.0302		0.0302	0.0302		476.4571	476.4571	9.1300e-003	8.7400e-003	479.2884
Fast Food Restaurant with	1265.59	0.0137	0.1241	0.1042	7.4000e-004		9.4300e-003	9.4300e-003		9.4300e-003	9.4300e-003		148.8928	148.8928	2.8500e-003	2.7300e-003	149.7776
Health Club	1001.29	0.0108	0.0982	0.0825	5.9000e-004		7.4600e-003	7.4600e-003		7.4600e-003	7.4600e-003		117.7986	117.7986	2.2600e-003	2.1600e-003	118.4986
High Turnover (Sit Down Restaurant)	6549.42	0.0706	0.6421	0.5394	3.8500e-003		0.0488	0.0488		0.0488	0.0488		770.5204	770.5204	0.0148	0.0141	775.0992
Hotel	11974	0.1291	1.1739	0.9861	7.0400e-003		0.0892	0.0892		0.0892	0.0892		1,408.7091	1,408.7091	0.0270	0.0258	1,417.0804
Parking Lot	0	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
Total		**0.2679**	**2.4353**	**2.0457**	**0.0146**		**0.1851**	**0.1851**		**0.1851**	**0.1851**		**2,922.3779**	**2,922.3779**	**0.0560**	**0.0536**	**2,939.7442**

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	lb/day										lb/day					
Fast Food Restaurant with	1.26559	0.0137	0.1241	0.1042	7.4000e-004		9.4300e-003	9.4300e-003		9.4300e-003	9.4300e-003		148.8928	148.8928	2.8500e-003	2.7300e-003	149.7776
Fast Food Restaurant with	4.04988	0.0437	0.3971	0.3335	2.3800e-003		0.0302	0.0302		0.0302	0.0302		476.4571	476.4571	9.1300e-003	8.7400e-003	479.2884
Health Club	1.00129	0.0108	0.0982	0.0825	5.9000e-004		7.4600e-003	7.4600e-003		7.4600e-003	7.4600e-003		117.7986	117.7986	2.2600e-003	2.1600e-003	118.4986
High Turnover (Sit Down Restaurant)	6.54942	0.0706	0.6421	0.5394	3.8500e-003		0.0488	0.0488		0.0488	0.0488		770.5204	770.5204	0.0148	0.0141	775.0992
Hotel	11.974	0.1291	1.1739	0.9861	7.0400e-003		0.0892	0.0892		0.0892	0.0892		1,408.7091	1,408.7091	0.0270	0.0258	1,417.0804

Parking Lot	0	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
Total		**0.2679**	**2.4353**	**2.0457**	**0.0146**		**0.1851**	**0.1851**		**0.1851**	**0.1851**		**2,922.3779**	**2,922.3779**	**0.0560**	**0.0536**	**2,939.7442**

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	lb/day										lb/day					
Mitigated	4.9763	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045
Unmitigated	4.9763	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045

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	lb/day										lb/day					
Architectural Coating	0.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4200e-003	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045

Total	**4.9763**	**4.3000e-004**	**0.0463**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0978**	**0.0978**	**2.7000e-004**		**0.1045**

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	lb/day										lb/day					
Architectural Coating	0.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.4035					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4200e-003	4.3000e-004	0.0463	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.0978	0.0978	2.7000e-004		0.1045
Total	**4.9763**	**4.3000e-004**	**0.0463**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.0978**	**0.0978**	**2.7000e-004**		**0.1045**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

9825 Mason Street Future

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	125.00	Room	1.00	181,500.00	0
Fast Food Restaurant with Drive Thru	6.40	1000sqft	0.50	6,400.00	0
Health Club	20.13	1000sqft	1.00	20,125.00	0
High Turnover (Sit Down Restaurant)	10.35	1000sqft	0.50	10,350.00	0
Fast Food Restaurant with Drive Thru	2.00	1000sqft	0.50	2,000.00	0
Parking Lot	283.00	Space	2.55	113,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2018
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Linscott Law & Greenspan "SWC Mason/Lassen Project Traffic Impact Study" October 2016

Vehicle Trips - Consultant assumptions

Construction Phase - Developer informaiton

Off-road Equipment -

Grading - Developer information

Demolition - Developer information

Trips and VMT - Developer information

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403 control efficiencies

Off-road Equipment - Consultant assumption

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	230.00	85.00
tblConstructionPhase	NumDays	20.00	11.00
tblConstructionPhase	NumDays	20.00	28.00
tblConstructionPhase	NumDays	10.00	19.00
tblConstructionPhase	PhaseEndDate	6/22/2018	12/9/2017
tblConstructionPhase	PhaseEndDate	4/27/2018	10/8/2017
tblConstructionPhase	PhaseEndDate	4/28/2017	4/17/2017
tblConstructionPhase	PhaseEndDate	6/9/2017	5/15/2017
tblConstructionPhase	PhaseEndDate	5/25/2018	10/30/2017
tblConstructionPhase	PhaseEndDate	5/12/2017	6/10/2017
tblConstructionPhase	PhaseStartDate	5/26/2018	10/9/2017
tblConstructionPhase	PhaseStartDate	6/10/2017	6/11/2017
tblConstructionPhase	PhaseStartDate	5/13/2017	4/18/2017
tblConstructionPhase	PhaseStartDate	4/28/2018	9/21/2017
tblConstructionPhase	PhaseStartDate	4/29/2017	5/16/2017
tblGrading	AcresOfGrading	10.00	8.05
tblGrading	MaterialExported	0.00	7,000.00
tblLandUse	LotAcreage	4.17	1.00
tblLandUse	LotAcreage	0.46	1.00

tblLandUse	LotAcreage	0.15	0.50
tblLandUse	LotAcreage	0.24	0.50
tblLandUse	LotAcreage	0.05	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	15.00
tblVehicleTrips	ST_TR	722.03	211.79
tblVehicleTrips	ST_TR	158.37	87.13
tblVehicleTrips	ST_TR	8.19	6.99
tblVehicleTrips	SU_TR	542.72	211.79
tblVehicleTrips	SU_TR	131.84	87.13
tblVehicleTrips	SU_TR	5.95	6.99
tblVehicleTrips	WD_TR	496.12	211.79
tblVehicleTrips	WD_TR	32.93	22.60
tblVehicleTrips	WD_TR	127.15	87.13
tblVehicleTrips	WD_TR	8.17	6.99

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					
2017	1.3664	3.0448	2.0536	4.3600e-003	0.3411	0.1535	0.4945	0.1562	0.1432	0.2994	0.0000	402.3251	402.3251	0.0682	0.0000	404.0298
Maximum	**1.3664**	**3.0448**	**2.0536**	**4.3600e-003**	**0.3411**	**0.1535**	**0.4945**	**0.1562**	**0.1432**	**0.2994**	**0.0000**	**402.3251**	**402.3251**	**0.0682**	**0.0000**	**404.0298**

Mitigated 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					
2017	1.3664	3.0448	2.0536	4.3600e-003	0.1522	0.1535	0.3056	0.0658	0.1432	0.2090	0.0000	402.3248	402.3248	0.0682	0.0000	404.0296
Maximum	**1.3664**	**3.0448**	**2.0536**	**4.3600e-003**	**0.1522**	**0.1535**	**0.3056**	**0.0658**	**0.1432**	**0.2090**	**0.0000**	**402.3248**	**402.3248**	**0.0682**	**0.0000**	**404.0296**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**55.39**	**0.00**	**38.20**	**57.87**	**0.00**	**30.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-3-2017	7-2-2017	1.6095	1.6095
2	7-3-2017	9-30-2017	1.3255	1.3255
		Highest	1.6095	1.6095

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	0.9079	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119

Energy	0.0489	0.4444	0.3733	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	1,919.2879	1,919.2879	0.0432	0.0159	1,925.1009
Mobile	1.8267	7.4714	18.1742	0.0438	2.4494	0.0548	2.5042	0.6705	0.0515	0.7220	0.0000	4,028.5876	4,028.5876	0.2831	0.0000	4,035.6645
Waste						0.0000	0.0000		0.0000	0.0000	81.8277	0.0000	81.8277	4.8359	0.0000	202.7246
Water						0.0000	0.0000		0.0000	0.0000	3.1892	81.8470	85.0362	0.3295	8.1300e-003	95.6978
Total	**2.7835**	**7.9159**	**18.5533**	**0.0464**	**2.4494**	**0.0886**	**2.5380**	**0.6705**	**0.0853**	**0.7558**	**85.0169**	**6,029.7336**	**6,114.7505**	**5.4917**	**0.0240**	**6,259.1996**

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	0.9079	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Energy	0.0489	0.4444	0.3733	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	1,919.2879	1,919.2879	0.0432	0.0159	1,925.1009
Mobile	1.8267	7.4714	18.1742	0.0438	2.4494	0.0548	2.5042	0.6705	0.0515	0.7220	0.0000	4,028.5876	4,028.5876	0.2831	0.0000	4,035.6645
Waste						0.0000	0.0000		0.0000	0.0000	81.8277	0.0000	81.8277	4.8359	0.0000	202.7246
Water						0.0000	0.0000		0.0000	0.0000	3.1892	81.8470	85.0362	0.3295	8.1300e-003	95.6978
Total	**2.7835**	**7.9159**	**18.5533**	**0.0464**	**2.4494**	**0.0886**	**2.5380**	**0.6705**	**0.0853**	**0.7558**	**85.0169**	**6,029.7336**	**6,114.7505**	**5.4917**	**0.0240**	**6,259.1996**

	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	N20	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**	**0.00**	**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	4/3/2017	4/17/2017	5	11	
2	Grading	Grading	4/18/2017	5/15/2017	5	20	
3	Site Preparation	Site Preparation	5/16/2017	6/10/2017	5	19	
4	Building Construction	Building Construction	6/11/2017	10/8/2017	5	85	
5	Paving	Paving	9/21/2017	10/30/2017	5	28	
6	Architectural Coating	Architectural Coating	10/9/2017	12/9/2017	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.05

Acres of Paving: 2.55

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 330,563; Non-Residential Outdoor: 110,188; Striped Parking Area: 6,792

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36

Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

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
Architectural Coating	1	28.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	140.00	55.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	875.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2017

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					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2351	0.1266	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.5803	19.5803	5.3500e-003	0.0000	19.7141
Total	**0.0226**	**0.2351**	**0.1266**	**2.1000e-004**	**4.0000e-005**	**0.0121**	**0.0121**	**1.0000e-005**	**0.0112**	**0.0112**	**0.0000**	**19.5803**	**19.5803**	**5.3500e-003**	**0.0000**	**19.7141**

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	5.2000e-004	4.5000e-004	4.8100e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.9236	0.9236	4.0000e-005	0.0000	0.9246
Total	**5.2000e-004**	**4.5000e-004**	**4.8100e-003**	**1.0000e-005**	**9.0000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**0.9236**	**0.9236**	**4.0000e-005**	**0.0000**	**0.9246**

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					2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2351	0.1266	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.5803	19.5803	5.3500e-003	0.0000	19.7141
Total	**0.0226**	**0.2351**	**0.1266**	**2.1000e-004**	**2.0000e-005**	**0.0121**	**0.0121**	**0.0000**	**0.0112**	**0.0112**	**0.0000**	**19.5803**	**19.5803**	**5.3500e-003**	**0.0000**	**19.7141**

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	5.2000e-004	4.5000e-004	4.8100e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.9236	0.9236	4.0000e-005	0.0000	0.9246
Total	**5.2000e-004**	**4.5000e-004**	**4.8100e-003**	**1.0000e-005**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**1.0000e-005**	**1.6000e-004**	**0.0000**	**0.9236**	**0.9236**	**4.0000e-005**	**0.0000**	**0.9246**

3.3 Grading - 2017

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					0.0649	0.0000	0.0649	0.0336	0.0000	0.0336	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5595	27.5595	8.4400e-003	0.0000	27.7706
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0649**	**0.0178**	**0.0827**	**0.0336**	**0.0164**	**0.0500**	**0.0000**	**27.5595**	**27.5595**	**8.4400e-003**	**0.0000**	**27.7706**

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	6.9600e-003	0.2134	0.0442	5.1000e-004	0.0113	1.1900e-003	0.0125	3.0900e-003	1.1400e-003	4.2300e-003	0.0000	50.0665	50.0665	3.3200e-003	0.0000	50.1494

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	9.4000e-004	8.2000e-004	8.7500e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6793	1.6793	7.0000e-005	0.0000	1.6810
Total	**7.9000e-003**	**0.2142**	**0.0530**	**5.3000e-004**	**0.0129**	**1.2100e-003**	**0.0141**	**3.5300e-003**	**1.1500e-003**	**4.6800e-003**	**0.0000**	**51.7458**	**51.7458**	**3.3900e-003**	**0.0000**	**51.8304**

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					0.0240	0.0000	0.0240	0.0125	0.0000	0.0125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0307	0.3389	0.1710	3.0000e-004		0.0178	0.0178		0.0164	0.0164	0.0000	27.5594	27.5594	8.4400e-003	0.0000	27.7705
Total	**0.0307**	**0.3389**	**0.1710**	**3.0000e-004**	**0.0240**	**0.0178**	**0.0418**	**0.0125**	**0.0164**	**0.0288**	**0.0000**	**27.5594**	**27.5594**	**8.4400e-003**	**0.0000**	**27.7705**

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	6.9600e-003	0.2134	0.0442	5.1000e-004	7.3700e-003	1.1900e-003	8.5600e-003	2.1400e-003	1.1400e-003	3.2700e-003	0.0000	50.0665	50.0665	3.3200e-003	0.0000	50.1494
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	9.4000e-004	8.2000e-004	8.7500e-003	2.0000e-005	9.9000e-004	2.0000e-005	1.0000e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.6793	1.6793	7.0000e-005	0.0000	1.6810
Total	**7.9000e-003**	**0.2142**	**0.0530**	**5.3000e-004**	**8.3600e-003**	**1.2100e-003**	**9.5600e-003**	**2.4200e-003**	**1.1500e-003**	**3.5600e-003**	**0.0000**	**51.7458**	**51.7458**	**3.3900e-003**	**0.0000**	**51.8304**

3.4 Site Preparation - 2017

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					0.1716	0.0000	0.1716	0.0943	0.0000	0.0943	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4388	0.1773	3.0000e-004		0.0230	0.0230		0.0212	0.0212	0.0000	28.0819	28.0819	8.6000e-003	0.0000	28.2970
Total	**0.0411**	**0.4388**	**0.1773**	**3.0000e-004**	**0.1716**	**0.0230**	**0.1946**	**0.0943**	**0.0212**	**0.1155**	**0.0000**	**28.0819**	**28.0819**	**8.6000e-003**	**0.0000**	**28.2970**

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	9.0000e-004	7.8000e-004	8.3200e-003	2.0000e-005	1.5600e-003	1.0000e-005	1.5800e-003	4.1000e-004	1.0000e-005	4.3000e-004	0.0000	1.5953	1.5953	7.0000e-005	0.0000	1.5970
Total	**9.0000e-004**	**7.8000e-004**	**8.3200e-003**	**2.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5800e-003**	**4.1000e-004**	**1.0000e-005**	**4.3000e-004**	**0.0000**	**1.5953**	**1.5953**	**7.0000e-005**	**0.0000**	**1.5970**

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					0.0636	0.0000	0.0636	0.0350	0.0000	0.0350	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0411	0.4388	0.1773	3.0000e-004		0.0230	0.0230		0.0212	0.0212	0.0000	28.0819	28.0819	8.6000e-003	0.0000	28.2970
Total	**0.0411**	**0.4388**	**0.1773**	**3.0000e-004**	**0.0636**	**0.0230**	**0.0866**	**0.0350**	**0.0212**	**0.0561**	**0.0000**	**28.0819**	**28.0819**	**8.6000e-003**	**0.0000**	**28.2970**

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	9.0000e-004	7.8000e-004	8.3200e-003	2.0000e-005	9.4000e-004	1.0000e-005	9.5000e-004	2.6000e-004	1.0000e-005	2.8000e-004	0.0000	1.5953	1.5953	7.0000e-005	0.0000	1.5970
Total	**9.0000e-004**	**7.8000e-004**	**8.3200e-003**	**2.0000e-005**	**9.4000e-004**	**1.0000e-005**	**9.5000e-004**	**2.6000e-004**	**1.0000e-005**	**2.8000e-004**	**0.0000**	**1.5953**	**1.5953**	**7.0000e-005**	**0.0000**	**1.5970**

3.5 Building Construction - 2017

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	0.1324	1.1286	0.7728	1.1400e-003		0.0760	0.0760		0.0714	0.0714	0.0000	102.2095	102.2095	0.0252	0.0000	102.8390
Total	**0.1324**	**1.1286**	**0.7728**	**1.1400e-003**		**0.0760**	**0.0760**		**0.0714**	**0.0714**	**0.0000**	**102.2095**	**102.2095**	**0.0252**	**0.0000**	**102.8390**

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	0.0124	0.3119	0.0910	6.1000e-004	0.0147	2.5700e-003	0.0173	4.2500e-003	2.4600e-003	6.7100e-003	0.0000	59.2701	59.2701	4.2700e-003	0.0000	59.3768
Worker	0.0374	0.0324	0.3473	7.4000e-004	0.0652	6.2000e-004	0.0658	0.0173	5.7000e-004	0.0179	0.0000	66.6101	66.6101	2.7800e-003	0.0000	66.6796
Total	**0.0498**	**0.3443**	**0.4382**	**1.3500e-003**	**0.0799**	**3.1900e-003**	**0.0831**	**0.0216**	**3.0300e-003**	**0.0246**	**0.0000**	**125.8802**	**125.8802**	**7.0500e-003**	**0.0000**	**126.0564**

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	0.1324	1.1286	0.7728	1.1400e-003		0.0760	0.0760		0.0714	0.0714	0.0000	102.2093	102.2093	0.0252	0.0000	102.8389
Total	**0.1324**	**1.1286**	**0.7728**	**1.1400e-003**		**0.0760**	**0.0760**		**0.0714**	**0.0714**	**0.0000**	**102.2093**	**102.2093**	**0.0252**	**0.0000**	**102.8389**

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	0.0124	0.3119	0.0910	6.1000e-004	9.9300e-003	2.5700e-003	0.0125	3.0700e-003	2.4600e-003	5.5300e-003	0.0000	59.2701	59.2701	4.2700e-003	0.0000	59.3768
Worker	0.0374	0.0324	0.3473	7.4000e-004	0.0392	6.2000e-004	0.0398	0.0109	5.7000e-004	0.0115	0.0000	66.6101	66.6101	2.7800e-003	0.0000	66.6796
Total	**0.0498**	**0.3443**	**0.4382**	**1.3500e-003**	**0.0491**	**3.1900e-003**	**0.0523**	**0.0140**	**3.0300e-003**	**0.0170**	**0.0000**	**125.8802**	**125.8802**	**7.0500e-003**	**0.0000**	**126.0564**

3.6 Paving - 2017

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	0.0272	0.2901	0.2105	3.2000e-004		0.0162	0.0162		0.0149	0.0149	0.0000	29.6006	29.6006	9.0700e-003	0.0000	29.8273
Paving	3.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0306**	**0.2901**	**0.2105**	**3.2000e-004**		**0.0162**	**0.0162**		**0.0149**	**0.0149**	**0.0000**	**29.6006**	**29.6006**	**9.0700e-003**	**0.0000**	**29.8273**

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	1.3200e-003	1.1500e-003	0.0123	3.0000e-005	2.3000e-003	2.0000e-005	2.3200e-003	6.1000e-004	2.0000e-005	6.3000e-004	0.0000	2.3509	2.3509	1.0000e-004	0.0000	2.3534
Total	**1.3200e-003**	**1.1500e-003**	**0.0123**	**3.0000e-005**	**2.3000e-003**	**2.0000e-005**	**2.3200e-003**	**6.1000e-004**	**2.0000e-005**	**6.3000e-004**	**0.0000**	**2.3509**	**2.3509**	**1.0000e-004**	**0.0000**	**2.3534**

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	0.0272	0.2901	0.2105	3.2000e-004		0.0162	0.0162		0.0149	0.0149	0.0000	29.6005	29.6005	9.0700e-003	0.0000	29.8273
Paving	3.3400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0306**	**0.2901**	**0.2105**	**3.2000e-004**		**0.0162**	**0.0162**		**0.0149**	**0.0149**	**0.0000**	**29.6005**	**29.6005**	**9.0700e-003**	**0.0000**	**29.8273**

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	1.3200e-003	1.1500e-003	0.0123	3.0000e-005	1.3800e-003	2.0000e-005	1.4100e-003	3.9000e-004	2.0000e-005	4.1000e-004	0.0000	2.3509	2.3509	1.0000e-004	0.0000	2.3534

Total	**1.3200e-003**	**1.1500e-003**	**0.0123**	**3.0000e-005**	**1.3800e-003**	**2.0000e-005**	**1.4100e-003**	**3.9000e-004**	**2.0000e-005**	**4.1000e-004**	**0.0000**	**2.3509**	**2.3509**	**1.0000e-004**	**0.0000**	**2.3534**

3.7 Architectural Coating - 2017

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	1.0372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4800e-003	0.0492	0.0420	7.0000e-005		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	5.7448	5.7448	6.1000e-004	0.0000	5.7600
Total	**1.0447**	**0.0492**	**0.0420**	**7.0000e-005**		**3.9000e-003**	**3.9000e-003**		**3.9000e-003**	**3.9000e-003**	**0.0000**	**5.7448**	**5.7448**	**6.1000e-004**	**0.0000**	**5.7600**

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	3.9600e-003	3.4400e-003	0.0368	8.0000e-005	6.9000e-003	7.0000e-005	6.9700e-003	1.8300e-003	6.0000e-005	1.8900e-003	0.0000	7.0528	7.0528	2.9000e-004	0.0000	7.0602
Total	**3.9600e-003**	**3.4400e-003**	**0.0368**	**8.0000e-005**	**6.9000e-003**	**7.0000e-005**	**6.9700e-003**	**1.8300e-003**	**6.0000e-005**	**1.8900e-003**	**0.0000**	**7.0528**	**7.0528**	**2.9000e-004**	**0.0000**	**7.0602**

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	1.0372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4800e-003	0.0492	0.0420	7.0000e-005		3.9000e-003	3.9000e-003		3.9000e-003	3.9000e-003	0.0000	5.7448	5.7448	6.1000e-004	0.0000	5.7600
Total	**1.0447**	**0.0492**	**0.0420**	**7.0000e-005**		**3.9000e-003**	**3.9000e-003**		**3.9000e-003**	**3.9000e-003**	**0.0000**	**5.7448**	**5.7448**	**6.1000e-004**	**0.0000**	**5.7600**

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	3.9600e-003	3.4400e-003	0.0368	8.0000e-005	4.1500e-003	7.0000e-005	4.2200e-003	1.1600e-003	6.0000e-005	1.2200e-003	0.0000	7.0528	7.0528	2.9000e-004	0.0000	7.0602
Total	**3.9600e-003**	**3.4400e-003**	**0.0368**	**8.0000e-005**	**4.1500e-003**	**7.0000e-005**	**4.2200e-003**	**1.1600e-003**	**6.0000e-005**	**1.2200e-003**	**0.0000**	**7.0528**	**7.0528**	**2.9000e-004**	**0.0000**	**7.0602**

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	1.8267	7.4714	18.1742	0.0438	2.4494	0.0548	2.5042	0.6705	0.0515	0.7220	0.0000	4,028.5876	4,028.5876	0.2831	0.0000	4,035.6645
Unmitigated	1.8267	7.4714	18.1742	0.0438	2.4494	0.0548	2.5042	0.6705	0.0515	0.7220	0.0000	4,028.5876	4,028.5876	0.2831	0.0000	4,035.6645

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,355.46	1,355.46	1355.46	1,426,465	1,426,465
Fast Food Restaurant with Drive Thru	423.58	423.58	423.58	445,770	445,770
Health Club	454.83	420.01	537.94	987,524	987,524
High Turnover (Sit Down Restaurant)	901.80	901.80	901.80	1,228,994	1,228,994
Hotel	873.75	873.75	873.75	2,084,917	2,084,917
Parking Lot	0.00	0.00	0.00		
Total	4,009.41	3,974.59	4,092.52	6,173,671	6,173,671

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Fast Food Restaurant with Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Health Club	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
High Turnover (Sit Down Restaurant)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Fast Food Restaurant with Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944
Parking Lot	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

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	1,435.4554	1,435.4554	0.0339	7.0100e-003	1,438.3932
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,435.4554	1,435.4554	0.0339	7.0100e-003	1,438.3932
NaturalGas Mitigated	0.0489	0.4444	0.3733	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	483.8324	483.8324	9.2700e-003	8.8700e-003	486.7076
NaturalGas Unmitigated	0.0489	0.4444	0.3733	2.6700e-003		0.0338	0.0338		0.0338	0.0338	0.0000	483.8324	483.8324	9.2700e-003	8.8700e-003	486.7076

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					
Fast Food Restaurant with	461940	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6509	24.6509	4.7000e-004	4.5000e-004	24.7974
Fast Food Restaurant with	1.47821e+006	7.9700e-003	0.0725	0.0609	4.3000e-004		5.5100e-003	5.5100e-003		5.5100e-003	5.5100e-003	0.0000	78.8828	78.8828	1.5100e-003	1.4500e-003	79.3516
Health Club	365470	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	19.5029	19.5029	3.7000e-004	3.6000e-004	19.6188
High Turnover (Sit Down Restaurant)	2.39054e+006	0.0129	0.1172	0.0984	7.0000e-004		8.9100e-003	8.9100e-003		8.9100e-003	8.9100e-003	0.0000	127.5683	127.5683	2.4500e-003	2.3400e-003	128.3264
Hotel	4.37052e+006	0.0236	0.2142	0.1800	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	233.2276	233.2276	4.4700e-003	4.2800e-003	234.6136
Parking Lot	0	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
Total		**0.0489**	**0.4444**	**0.3733**	**2.6700e-003**		**0.0338**	**0.0338**		**0.0338**	**0.0338**	**0.0000**	**483.8324**	**483.8324**	**9.2700e-003**	**8.8800e-003**	**486.7076**

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					
Fast Food Restaurant with	1.47821e+006	7.9700e-003	0.0725	0.0609	4.3000e-004		5.5100e-003	5.5100e-003		5.5100e-003	5.5100e-003	0.0000	78.8828	78.8828	1.5100e-003	1.4500e-003	79.3516
Fast Food Restaurant with	461940	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6509	24.6509	4.7000e-004	4.5000e-004	24.7974
Health Club	365470	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.0000	19.5029	19.5029	3.7000e-004	3.6000e-004	19.6188
High Turnover (Sit Down Restaurant)	2.39054e+006	0.0129	0.1172	0.0984	7.0000e-004		8.9100e-003	8.9100e-003		8.9100e-003	8.9100e-003	0.0000	127.5683	127.5683	2.4500e-003	2.3400e-003	128.3264
Hotel	4.37052e+006	0.0236	0.2142	0.1800	1.2900e-003		0.0163	0.0163		0.0163	0.0163	0.0000	233.2276	233.2276	4.4700e-003	4.2800e-003	234.6136
Parking Lot	0	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
Total		**0.0489**	**0.4444**	**0.3733**	**2.6700e-003**		**0.0338**	**0.0338**		**0.0338**	**0.0338**	**0.0000**	**483.8324**	**483.8324**	**9.2700e-003**	**8.8800e-003**	**486.7076**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with	286656	159.6564	3.7700e-003	7.8000e-004	159.9831
Fast Food Restaurant with	89580	49.8926	1.1800e-003	2.4000e-004	49.9947
Health Club	227614	126.7721	2.9900e-003	6.2000e-004	127.0316
High Turnover (Sit Down Restaurant)	463577	258.1943	6.1000e-003	1.2600e-003	258.7227
Hotel	1.41026e+006	785.4578	0.0186	3.8400e-003	787.0653
Parking Lot	99616	55.4823	1.3100e-003	2.7000e-004	55.5958
Total		**1,435.4554**	**0.0339**	**7.0100e-003**	**1,438.3932**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with	286656	159.6564	3.7700e-003	7.8000e-004	159.9831
Fast Food Restaurant with	89580	49.8926	1.1800e-003	2.4000e-004	49.9947
Health Club	227614	126.7721	2.9900e-003	6.2000e-004	127.0316
High Turnover (Sit Down Restaurant)	463577	258.1943	6.1000e-003	1.2600e-003	258.7227

Hotel	1.41026e+006	785.4578	0.0186	3.8400e-003	787.0653
Parking Lot	99616	55.4823	1.3100e-003	2.7000e-004	55.5958
Total		**1,435.4554**	**0.0339**	**7.0100e-003**	**1,438.3932**

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	0.9079	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Unmitigated	0.9079	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119

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	0.1037					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8036					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Landscaping	5.5000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Total	**0.9079**	**5.0000e-005**	**5.7800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0119**

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	0.1037					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8036					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.7800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0111	0.0111	3.0000e-005	0.0000	0.0119
Total	**0.9079**	**5.0000e-005**	**5.7800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0111**	**0.0111**	**3.0000e-005**	**0.0000**	**0.0119**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	85.0362	0.3295	8.1300e-003	95.6978
Unmitigated	85.0362	0.3295	8.1300e-003	95.6978

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with	2.54968 / 0.162746	20.3067	0.0835	2.0600e-003	23.0083
Health Club	1.19055 / 0.729693	13.5270	0.0391	9.8000e-004	14.7968
High Turnover (Sit Down Restaurant)	3.14157 / 0.200526	25.0208	0.1029	2.5300e-003	28.3495
Hotel	3.17085 / 0.352316	26.1816	0.1039	2.5600e-003	29.5432
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**85.0362**	**0.3295**	**8.1300e-003**	**95.6978**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with	2.54968 / 0.162746	20.3067	0.0835	2.0600e-003	23.0083
Health Club	1.19055 / 0.729693	13.5270	0.0391	9.8000e-004	14.7968
High Turnover (Sit Down Restaurant)	3.14157 / 0.200526	25.0208	0.1029	2.5300e-003	28.3495
Hotel	3.17085 / 0.352316	26.1816	0.1039	2.5600e-003	29.5432
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Total		**85.0362**	**0.3295**	**8.1300e-003**	**95.6978**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	81.8277	4.8359	0.0000	202.7246
Unmitigated	81.8277	4.8359	0.0000	202.7246

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with	96.76	19.6414	1.1608	0.0000	48.6608
Health Club	114.74	23.2912	1.3765	0.0000	57.7029
High Turnover (Sit Down Restaurant)	123.17	25.0024	1.4776	0.0000	61.9424
Hotel	68.44	13.8927	0.8210	0.0000	34.4186

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**81.8277**	**4.8359**	**0.0000**	**202.7246**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with	96.76	19.6414	1.1608	0.0000	48.6608
Health Club	114.74	23.2912	1.3765	0.0000	57.7029
High Turnover (Sit Down Restaurant)	123.17	25.0024	1.4776	0.0000	61.9424
Hotel	68.44	13.8927	0.8210	0.0000	34.4186
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**81.8277**	**4.8359**	**0.0000**	**202.7246**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

9825 Mason Street Project

GHG Emissions Impact Compared to "No Action Taken" Scenario

Source	NAT (2018)	As Proposed (2018)	Reduction from NAT	Change from NAT
Area	0	0	-	0%
Energy	3,319	1,925	(1,394)	-42%
Mobile	5,749	4,036	(1,713)	-30%
Waste	203	203	-	0%
Water	96	96	-	0%
Construction	13	13	-	0%
Total Emissions	9,380	6,273	(3,107)	-33.1%

Land Use	NAT	As Proposed	Difference
Land Use	124-room hotel, other	124-room hotel, other c	None
Traffic	3,715 net ADT	3,715 net ADT	None
Area	Same as proposed	Project assumptions	None
Energy	No State measures	See below	State measures
Mobile	No State measures	See below	State measures
Waste	Reduce construction w	Reduce construction wa	None
Water	Project assumptions	Project assumptions	None

Mobile source emissions	Pavley emission standards (19.8% reduction)
	Low carbon fuel standard (7.2% reduction)
	Vehicle efficiency measures (2.8% reduction)
Energy Production Assun	Natural gas transmission and distribution efficiency measures (7.4% reduction)
	Natural gas extraction efficiency measures (1.6% reduction)
	Renewables (electricity) portfolio standard (33% reduction)

C. CULTURAL RESOURCES DOCUMENTS



Lassen and Mason Redevelopment

Historical Resources Assessment Report

Prepared for:

HRI Development
20 N. Raymond Ave., Suite 300
Pasadena, CA 91103

Prepared by:

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October 26, 2016

Architectural
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Appendix A: Photographs of Former Safeway Store

Appendix B: Proposed Project Site Plan and Elevations

1. Introduction

In response to a request from HRI Development, Architectural Resources Group (ARG) has conducted a Historical Resources Assessment of the Lassen and Mason Redevelopment Project ("the Project"). The Project site is composed of eight buildings fronted by a large parking lot at the southwest corner of Lassen Street and Mason Avenue in the Chatsworth community of the City of Los Angeles.

The following report provides historical background, a discussion of the regulatory setting, an evaluation of the buildings on the Project site, and an analysis of the impacts to historical resources of the proposed Project. This study has been completed to fulfill the requirements of the California Environmental Quality Act (CEQA) as they relate to historical resources.

1.1 Methodology

For preparation of this report, ARG performed the following tasks for research, documentation, and analysis:

- Conducted a site visit for photography and evaluation purposes, in accordance with State Office of Historic Preservation guidelines.
- Conducted a search in California's Historic Resources Inventory (HRI) for previous surveys and evaluations of the properties on the Project site.
- Reviewed state and local technical bulletins, ordinances, and other materials related to the evaluation of historical resources.
- Conducted extensive primary and secondary source research related to the history of Project site.
- Evaluated potential historical resources against eligibility criteria of the California Register of Historical Resources (California Register) and the City of Los Angeles' Cultural Heritage Ordinance.
- Analyzed the potential of the Project to impact historical resources in accordance with significance thresholds delineated in Section 15064.5 of

the CEQA Guidelines (Cal. Code Regs., tit 14, §15000, et seq.) and in the City of Los Angeles CEQA Thresholds Guide (2006).

ARG staff consulted the following archives and repositories as part of their research for this project: University of Southern California (USC) Digital Archives; Los Angeles Public Library (multiple collections); Proquest, including historic *Los Angeles Times* databases; Los Angeles Department of Building and Safety Online Building Records; United States Census Records; and ARG's in-house library collection. A complete bibliography is included in Section 8 of this report.

This Historical Resources Assessment was prepared by Jennifer Trotoux, Senior Associate, and Evanne St. Charles, both ARG architectural historians and historic preservation planners, with oversight by Katie Horak, Principal. All ARG staff meet the *Secretary of the Interior's Professional Qualification Standards* in Architectural History and History.

1.2 Summary of Findings

The following properties, located on the Project site, were evaluated for potential historical significance.

- 9733-9745 N. Mason Avenue
- 9749-9753 N. Mason Avenue
- 9755-9765 N. Mason Avenue
- 9805 N. Mason Avenue
- 9835-9849 N. Mason Avenue
- 20524 W. Lassen Street
- 20504 W. Lassen Street
- 9825 N. Mason Avenue

All buildings except for 9825 N. Mason Avenue appear ineligible for listing in the California Register of Historical Resources or as a local Historic-Cultural Monument under the City of Los Angeles Cultural Heritage Preservation Ordinance.

The former Safeway supermarket building (9825 N. Mason Ave.) appears eligible for listing in the California Register of Historical Resources under Criterion 3 and for local listing under City of Los Angeles Cultural Heritage Preservation Criterion 3. Thus, the property is considered a historical resource for the purposes of CEQA.

Pursuant to CEQA, this report also provides an analysis of Project impacts to historic resources.

1.3 Proposed Project Description

The proposed project consists of the partial redevelopment of the retail center located on the eight-acre project site. Most of the existing buildings are to be demolished with the exception of the largest, a former Safeway store. Parking and circulation will also be reconfigured.

Buildings to be demolished consist of an existing retail storefront strip in the northwest part of the site, an auto care building at the northwest corner, and an existing single family residence in the center of the Lassen St. frontage. The recreational vehicle storage that occupies most of the north end of the property will be removed. The former Safeway supermarket known as Building 1 will be adaptively reused and the exterior treated in a way that will retain its historic character. The retail storefront strip adjoining it to the south will be retained as well, but the buildings will be remodeled.

New construction consists of a multistory hotel with an L-shaped footprint to be located on Lassen Street and a multi-storefront retail building clustered with it. To the west, on Mason Ave. near the corner of Lassen St., two fast food buildings will be constructed. As noted, Building 1 and the retail strip to the south will be maintained. The resulting project will contain a mix of hotel, restaurant, and retail uses and will be completed in two phases. Building 1 and the adjoining Building 2 are included in Phase 1, along with the hotel, a new retail building near it, and the two fast food buildings. Phase 2 consists of the remodeling of the south portion of the site.

1.4 Proposed Project Location

The Project site is located at the southwest corner of Lassen Street and Mason Avenue in Chatsworth, a neighborhood at the northwest end of the San Fernando Valley, in the City of Los Angeles. The approximately eight-acre Project site is bounded by Lassen Street to the north, an alley parallel with Marilla Street to the south, Mason Avenue to the east, and an alley behind buildings fronting on Cozycroft Avenue to the west. The site is surrounded by single-family residential development to the north and east, commercial and industrial development to the south, and commercial development and a mobile home park to the west.

Originally part of the Viarengo family farm, the Project site remained agricultural until the early 1950s. Like much of the San Fernando Valley, the Chatsworth community experienced tremendous growth after World War II. The Project site was developed as a commercial center between 1960 and 1961 to serve the surrounding postwar residential neighborhoods.

The Project site contains eight buildings – seven commercial and one residential – set back from Mason Avenue by paved surface parking (the residence fronts on Lassen Street and is slightly set back from the sidewalk). Beginning in the 1950s, the orchards that originally comprised the Viarengo family farm were uprooted to make way for new development. By 1959, only the northern third of the ten-plus-acre farm, which still contained the 1923 farm house, remained. By the mid-1970s, the last of the orchard was removed, and the farm house now shares its two-acre lot with recreational vehicle (RV) storage. Between 1960 and 1961, a gas/service station (now an automobile repair shop) an eight-store commercial building and a commercial retail strip of five buildings anchored by a Safeway supermarket were constructed on the Project site. The retail buildings formed a cohesive shopping center, tied together by their shared parking, patterned brick cladding, and aluminum-framed storefronts.



Figure 1. Project location map (Google Maps, 2016). The red outline indicates the proposed Project boundary, and the yellow outline indicates the former Safeway supermarket.

2. Regulatory Framework

According to Section 21084.1 of the California Public Resources Code, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.

2.1 Definition of Historical Resources

For the purposes of CEQA, the term "historical resources" shall include the following as set forth in Section 15064.5 of the CEQA Guidelines (Cal. Code Regs., tit 14, §15000, et seq.):

> A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.
>
> A resource included in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
>
> Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources.[1]

[1] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.

2.2 Definition of "Substantial Adverse Change"

A "substantial adverse change" in the significance of a historical resource is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Further, the significance of an historical resource is "materially impaired" when a project:

- "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the California Register of Historical Resources; or
- "demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources... or its identification in an historical resources survey..., unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- "demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA."[2]

CEQA effectively requires preparation of a Mitigated Negative Declaration or an EIR whenever a project may adversely impact historic resources. Current CEQA law provides that an EIR must be prepared whenever it can be fairly argued, on the basis of substantial evidence in the administrative record, that a project may have a significant effect on a historical resource.[3] A Mitigated Negative Declaration may be used where all potentially significant effects can be mitigated to a level of insignificance.[4] For example, a Mitigated Negative Declaration may be adopted for a project that mitigates significant effects on an historical resource by

[2] California Code of Regulations/Guidelines for Implementation of CEQA, Section 15064.5(b).
[3] CEQA Guidelines Section 15064(f)(1).
[4] CEQA Guidelines Section 15064(f)(2).

meeting the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and local historic preservation regulations.

3. Property Description and Development

3.1 Description

3.1.1 Project Site and Setting

The Lassen and Mason Project site is located at the southwest corner of Lassen Street and Mason Avenue in the Chatsworth community of the City of Los Angeles, California. The topography of the site slopes gently downward to the south from Lassen St. and away from the foothills of the San Fernando Valley. The site is generally surrounded by residential development to the north, east, and west, and commercial/industrial development to the south. Immediately north of the site, on the north side of Lassen Street, is a church (St. Johns Eudes Church); directly south of the site are additional commercial properties; immediately east of the site, on the east side of Mason Avenue, are a gas station, convenience store and restaurant; and directly west of the site is a storage center and mobile home park.

The site comprises approximately eight acres (and eight parcels) currently occupied by a single-family residence, an automobile repair shop, a single freestanding commercial building, a commercial strip of five adjacent structures, and an open storage lot for recreational vehicles (RVs). Paved parking fronts the buildings on the east side of the site. The RV storage lot, which encompasses the majority of the northwest portion of the Project site, is mostly dirt (the southernmost section is paved with asphalt).

The following pages provide details and a description and photograph of each of the buildings on the Project site. The former Safeway supermarket (9825 N. Mason Ave.) is described in further detail following this section.

9733-9745 Mason Ave.

Year Built	Arch. Style	Architect	Contractor	Alterations
1961	Commercial Vernacular	George Kirkpatrick	Modiano Construction Co.	Projecting metal fascia added at the canopy/parapet, new signage

One-story wood-framed building composed of four retail storefronts. Features a rectangular plan, flat roof with a parapet, and stucco and brick cladding. Original fenestration consists of fully-glazed aluminum-frame storefront system.





9749-9753 Mason Ave.

Year Built	Arch. Style	Architect	Contractor	Alterations
1961	Commercial Vernacular	George Kirkpatrick	Modiano Construction Co.	Projecting metal fascia added at the canopy/parapet, new signage

One-story wood-framed building composed of five retail storefronts. Features a rectangular plan, flat roof with a parapet, and stucco and brick cladding. Fenestration includes floor-to-ceiling windows and fully-glazed aluminum doors.





9755-9765 Mason Ave.

Year Built	Arch. Style	Architect	Contractor	Alterations
1961	Commercial Vernacular	None	Wilber F. Stanley	Northern and southernmost storefronts altered (re-clad in stone and vertical wood siding), new signage

One-story wood-framed building composed of five storefronts. Retains a rectangular plan, flat roof with a parapet, stucco and brick cladding, and a stuccoed canopy. Original fenestration consists of fully-glazed aluminum-frame storefront system with door transoms.





9805 Mason Ave.

Year Built	Arch. Style	Architect	Contractor	Alterations
1961	Commercial Vernacular	None	Wilber F. Stanley	New signage

One-story wood-framed building composed of one storefront. Retains a rectangular plan, flat roof with a stuccoed parapet, brick cladding, and a canopy. Original fenestration consists of fully-glazed aluminum-frame storefront system.





9835-9849 N. Mason Ave.

Year Built	Arch. Style	Architect	Contractor	Alterations
1960	Commercial Vernacular	George Kirkpatrick	Modiano Construction Co.	New signage, re-clad, brick painted

One-story wood-framed building composed of eight storefronts. Retains a rectangular plan, flat roof, and stucco cladding with brick accent cladding. A wide fascia sits below the roof parapet and holds signage for each tenant. Original fenestration consists of fully-glazed aluminum-frame storefront system.



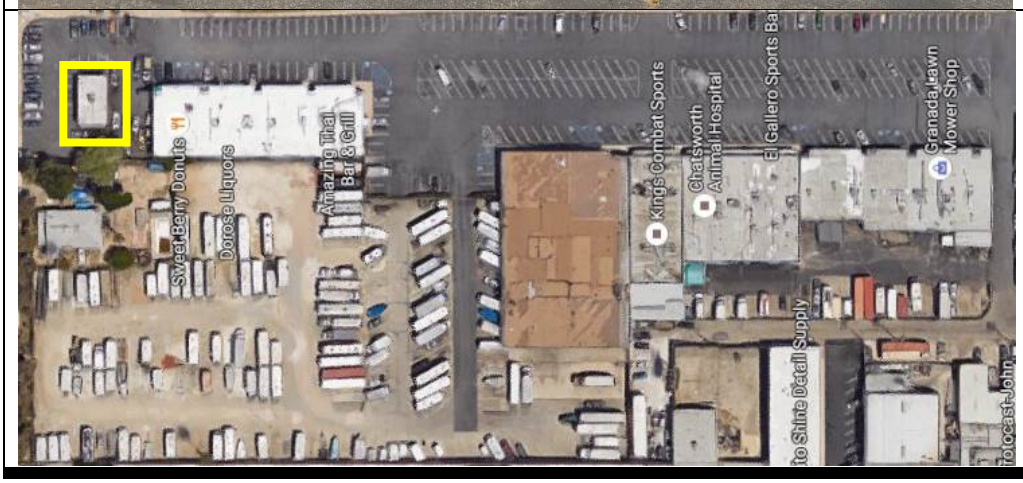


20504 West Lassen Street

Year Built	Arch. Style	Architect	Contractor	Alterations
1960	Commercial Vernacular	None	Nigg Engineering Corp.	Signage altered/added

One-story commercial building with rectangular plan, flat roof with projecting eaves, and walls clad with stucco. Fenestration consists of fixed aluminum windows and partially-glazed door at the east (primary) façade, and additional doors and a vehicular entry on the sides.





20524 West Lassen Street

Year Built	Arch. Style	Architect	Contractor	Alterations
1923	Vernacular/ Craftsman	None	Illegible	Addition to west elevation, flush with primary façade (1960), doors and windows altered, exterior re-stuccoed, setting altered.

One-story single-family residence with rectangular plan and wood framing. Features a gable and hipped roof with exposed rafter tails, purlins, and wood fascia, and walls clad with stucco. North (primary) façade contains a full-length concrete slab porch covered with a pent roof supported by three stuccoed arches. Fenestration includes boarded-up windows (not visible) and a non-original paneled door.







3.1.2 9825 N. Mason Avenue (former Safeway)

Please see Appendix A for additional images of the building.

Site and Setting

The building at 9825 N. Mason Avenue, the former Safeway store, is located on a two-and-a-half-acre lot at the center of the Project site. It is set back further and south of the automobile repair shop (20504 W. Lassen) and commercial building (9835-9849 N. Mason) that share the Project site. The building is fronted by a large paved parking lot and anchors a smaller adjoining commercial retail strip to the south. To the north of the building is another parking lot and a brick wall that encloses an area that has been used for RV storage since the 1970s (this area is partially paved with asphalt and partially unpaved). A concrete loading dock is located directly west of the building at the rear.

Exterior

Completed in 1961 as a Safeway supermarket, the building was designed in the Mid-Century Modern style. The building has a rectangular plan capped with a low-pitched, front-facing gabled roof with wide eaves and exposed glulam beam ends that pierce the side fascias. The eaves on the west (rear) façade are boxed with painted plywood. The roof is covered in composition shingle roofing as well as an unknown material in areas where it experienced extensive fire damage in the early 2000s. The walls of the building are composed of painted concrete panels and brick veneer.



Figure 2. Primary (east) façade of the former Safeway supermarket, view west.

The building's primary (east) façade is characterized by its prominent asymmetrical roofline, composed of a broad, low-pitched gable that extends down further at the north end, beyond the north wall. At the south end of the primary façade, the roof rake terminates in a brick-clad wall that extends above the eaves and terminates in a flat parapet. Near the top south corner of the brick wall is a recessed circular impression that contains the letter "h" (the logo for the current occupant of the building; it originally held Safeway's "S" logo). At the center of the east façade is a grouping of fixed and sliding aluminum windows that extend from the exposed glulam roof beam at the top of the gable end to a raised brick planter that runs along the foot of the building (most of the windows are not original, and some have been replaced with air conditioning units and wood vertical board siding). The glazed entry is bisected by a projecting horizontal fascia clad in stucco with mounted lettering reading "HERCULES DISTRIBUTING LTD." (it originally contained metal signage that read "SAFEWAY"). A single fully-glazed aluminum door (not an original door/opening) is located at the north end of the entry, and a pair of fully-glazed aluminum doors is located at the south end. The entrance is bounded on either side by walls clad in buff brick veneer with raked horizontal mortar joints. Within the brick cladding are small, recessed rectangular windows of different sizes arranged in a decorative geometric composition of horizontals and verticals. Most of the windows retain textured obscure glass in various colors (some of the glazing has been boarded up/removed). To the north of the northern section of brick veneer is an area clad with non-original wood vertical board paneling (this area originally contained a large window, which may simply be covered). Below the wood vertical board is a raised brick planter.



Figure 3. East end of north façade at corner entrance, view southwest. Concrete panels fill the bays beyond the fence.

The building's north façade is primarily composed of painted concrete panels, with brick cladding near its east end wrapping from the main façade treatment. Simple concrete pilasters are evenly spaced along the concrete paneled portion of the façade and align with the glulam beam ends that support the eaves and pierce the fascia at the north façade. North façade fenestration includes metal doors (not original) at its center and west end, and a grouping of windows and fully-glazed aluminum doors at its east end. The window and door configuration at the east end of the north elevation is slightly recessed from the brick cladding it abuts to the west. The grouping is composed of eight windows of roughly equal size and two single doors, forming a secondary entrance at the northeast corner.

The building's west façade comprises the rear gable end of the structure. At the top of the gable end is a metal utility light with a curved arm, and sprinklers line the bottom of the plywood-boxed eaves. The west wall is composed of painted concrete panels with four metal roll-up freight doors and two standard-size metal doors.

The south façade of the former Safeway market is not visible, as it adjoins a commercial retail strip.

Interior

The interior, which originally featured an open floor plan (with coolers, lockers, and restrooms at the rear), is subdivided into multiple office and storage rooms. Smaller office spaces line the perimeter and front of the interior of the building, and larger storage rooms are located near the rear. A mezzanine office level, added in 1970, is located at the front of the building in the east gable end. Though most of the original interior finishes have been removed, the original open ceiling with exposed glulam beams are still extant, as are the furred soffits along the sides and narrow metal columns, which run along the center (ridgeline) of the interior.



Figure 4. Exposed glulam beams at the ceiling at the interior of the former Safeway supermarket.

Character-Defining Features

Following is a list of the character-defining features, which are those materials, features, and characteristics, dating to the period of significance, that constitute the historic building and contribute to its significance.

- Horizontal massing
- Low-pitched gable roof
- Asymmetrical roofline
- Exposed glulam beams at the gable end, exposed on the north façade eaves, and at the interior ceiling
- Unornamented buff brick veneer with raked horizontal joints

- Painted concrete wall panels (north and west sides)
- Floor-to-ceiling window arrangement in center of primary (east) façade
- Aluminum-framed, fixed windows at east and north façades
- Fully-glazed aluminum doors at the east and north façades
- Pattern of recessed/punched rectangular windows with colored, textured obscure glass at the primary façades
- Projecting stuccoed fascia bisecting the glazed entry at the primary façade
- Circular impression at the top south corner of the primary façade

3.2 Development Chronology and Alterations

Upon review of historical building permits from the Los Angeles Department of Building and Safety Online Building Records, historic aerial photographs from NETROnline, and original 1960 architectural drawings for the Safeway supermarket (9825 N. Mason Ave.) provided by the client, ARG created the following development chronologies for the Project site and for the former Safeway store (9825 N. Mason Ave.). The chronologies below provide a summary of the site's and former supermarket's development as well as a summary of all documented alterations:

3.2.1 Chronology of the Project Site

1923 A single-family residence was constructed by Giuseppe Viarengo at the north end of the Project site, then part of the Viarengo family farm.[5]

1950s The southern half of the farm was subdivided for development.[6]

1960-1961 A gas/service station and six commercial retail buildings, including a Safeway supermarket, were constructed on the Project site. The east side of the site was paved for parking, and light standards were

[5] Los Angeles County, Department of Building and Safety Permit No. 52836; City of Los Angeles, San Fernando Valley City Directory, 1928; Marriage Announcement, *Los Angeles Times*, November 17, 1937, A22.
[6] Historic Aerials, 1952 and 1959.

installed.[7]

1970s The remaining orchard west of the original farm residence was removed. The majority of the northwest portion of the Project site was converted for use as a recreational vehicle (RV) storage lot.[8]

Dates unknown Some commercial storefronts were altered and some buildings were re-clad or their brick painted. New storefront signage was added.

3.2.2 Chronology of 9825 N. Mason Avenue

1960 A permit was pulled for the construction of a food market and parking lot at 9825 N. Mason Avenue. Don Mallas commissioned architect George Kirkpatrick to design the supermarket.[9]

1961 The Mason Avenue Safeway opened, anchoring a smaller commercial retail strip to the south.[10]

1970 Theodore Lapadakis acquired the property and turned the supermarket into an office and storage space for the Hercules Distribution company (later also a real estate management company).[11] The interior of the building was subdivided into multiple offices and larger storage rooms, and a mezzanine was added.[12] It is assumed new door openings and windows were added to the building at this time as well.

1979 A permit was pulled to change the use of the parking lot north of the building into an RV storage lot.[13]

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[7] Los Angeles County, Department of Building and Safety Permit Nos. 56294, 53921, 53536, 82610, 81980, 78975, and 75838.
[8] Historic Aerials, 1977; Los Angeles County, Department of Building and Safety Permit No. 90919.
[9] Los Angeles County, Department of Building and Safety Permit No. 53536; Drawings, Safeway Store, 1960.
[10] Display Ad, *Los Angeles Times*, January 19, 1961, 14.
[11] The 1970 building permit lists a "Theomorr Planpandakis" as the owner of the property; however, other permits as well as online sources about the Hercules company list a "Theodore Lapadakis." It is assumed the name on the 1970 permit was a typo.
[12] Los Angeles County, Department of Building and Safety Permit No. 90919.
[13] Los Angeles County, Department of Building and Safety Permit No. 60579.

4. Historic Context and Development

4.1 Early History of Chatsworth

Chatsworth is a community in the City of Los Angeles, California, located in the northwestern corner of the San Fernando Valley, approximately 30 miles northwest of downtown. Like most of Los Angeles County, Chatsworth was originally inhabited by the Tongva people and was the site of a small Tongva village, likely called Momonga. The village served as an important trading center among the Tongva, Tataviam, and Chumash tribes due to its adjacency to the Santa Susana Mountains, a convergence point between the tribes.[14] In the late eighteenth century, Franciscan missionaries arrived in the San Fernando Valley and founded Mission San Fernando in 1797. Momonga was subsequently abandoned as the Tongva were either relocated to the mission or succumbed to communicable diseases introduced by the Spanish. Due to its relative distance from Mission San Fernando, Chatsworth remained largely uninhabited while California was under Spanish rule.[15]

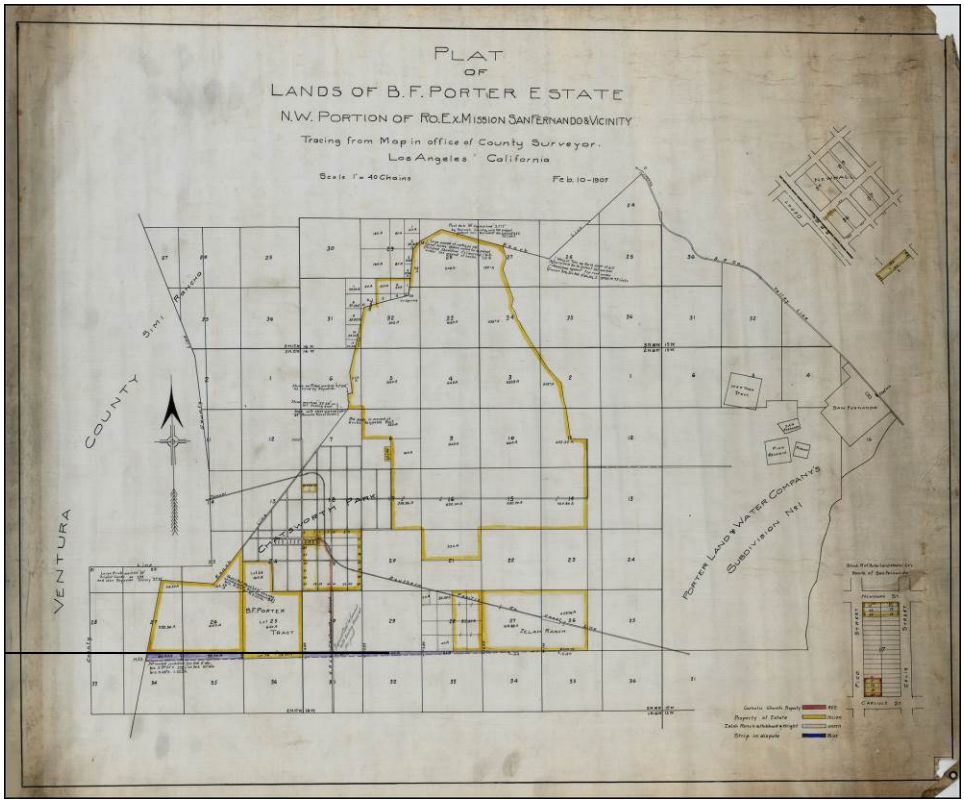

Figure 5. Plat of Lands of the Benjamin F. Porter estate, 1907 (Office of County Surveyor, Los Angeles, CA).

[14] Architectural Resources Group, "SurveyLA: Chatsworth-Porter Ranch Community Plan Area," (prepared for the City of Los Angeles, 2015), 7.
[15] Architectural Resources Group, 9.

When the State was ceded to Mexico in 1821, Chatsworth was incorporated into Rancho Ex Mission San Fernando, a large land grant comprising almost the entirety of the San Fernando Valley and was sold to Eulogio de Celis in 1846.[16] In 1874, the heirs of De Celis sold the north half of the Rancho to a group of San Francisco-based investors, including State Senator Charles Maclay, George K. Porter, and Porter's cousin, Benjamin.[17] While Maclay took the eastern third with the intention of establishing towns, and George Porter took the middle to raise livestock and plant crops, the land comprising Chatsworth and the neighboring community of Porter Ranch was controlled by Benjamin Porter, who had little interest in developing the land. As such, Chatsworth remained largely undeveloped until the late nineteenth century.[18]

With the completion of the transcontinental railroad and the subsequent real estate boom in Southern California in the 1880s, several new towns were established in the San Fernando Valley, among them the town of Chatsworth Park. Chatsworth Park was subdivided in 1888 by investor George Crow; it was named after the Duke of Devonshire's country estate in England.[19] Crow intended Chatsworth Park to be a picturesque agricultural community of small farms. He subdivided the land into ten-acre lots, perfect for small-scale cultivation.[20]

Chatsworth Park remained sparsely developed until 1893 when the Southern Pacific Railroad constructed a spur line which branched off its main line at Burbank and terminated in Chatsworth Park. Upon completion of the spur line, the San Fernando Valley Improvement Company re-subdivided the town, orienting it around the Burbank Branch. A small town center, near the current intersection of Topanga Canyon Boulevard and Lassen Street, emerged at the end of the rail line. The town consisted of a railroad depot, inn, post office, and general store. A scattering of small houses and orchards

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[16] Kevin Roderick, *The San Fernando Valley: America's Suburb* (Los Angeles: Los Angeles Times Books, 2002), 26.
[17] Catherine Mulholland, *William Mulholland and the Rise of Los Angeles* (Berkeley: University of California Press, 2000), 98.
[18] Architectural Resources Group, 9.
[19] "England Collection," *Chatsworth Historical Society*, accessed September 1, 2016, http://www.historicalsocieties.net/england.shtml.
[20] "Plat of Lands of B.F. Porter Estate," Office of County Surveyor, Los Angeles, California, 1907.

surrounded the town center, and in 1903, a cornerstone was laid for a new church (Chatsworth Community Church, Los Angeles Historic-Cultural Monument No. 14).[21]

The completion of the railroad helped to bolster the town's economy by creating a way to market for local products. In particular, the rocky hills located just west of the town were well-suited to sandstone quarrying, a major boon to the local economy in the 1890s and 1910s.[22] By the first decades of the twentieth century, agriculture had become the backbone of Chatsworth Park's economy, in large part due to the annexation of the town to the City of Los Angeles in 1915, providing a stable water source via the Los Angeles Aqueduct. The construction of the Chatsworth Reservoir in 1919 further increased the town's reliable water supply. A variety of crops, including lemons, oranges, melons, figs, potatoes, lima beans, and walnuts, soon comprised the vast expanses of Chatsworth's undeveloped land. By the 1920s, the "Park" in the town's name had been dropped, and the community had become known as "Chatsworth."[23]



Figure 6. Aerial view of the town of Chatsworth and the newly-built reservoir, ca. 1920 (waterandpower.org).

[21] "Chatsworth Celebrates 125 Years as an Anchor of the North San Fernando Valley," in *Chatsworth/Porter Ranch Chamber of Commerce Business Directory 2013-2014,* 19.
[22] Architectural Resources Group, 11.
[23] "Los Angeles County, First in America," *Los Angeles Times*, January 1, 1925, G2.

Beginning in the 1910s, Chatsworth was used as a filming location. Its picturesque landscape and rugged rock formations were the perfect backdrop for film and television productions set in the American West and various exotic locations.[24] During the next several decades, the community was a widely-popular filming location, with most of the production activity taking place at the Chatsworth Reservoir or at various "movie ranches" located in the Santa Susana Pass. Famous movie ranches included Iverson Ranch, William S. Hart's Spahn Ranch, and the Corriganville and Bell Moving Picture ranches.[25] By the 1930s and '40s, several film stars acquired ranch properties in Chatsworth, including Mae Marsh, Lionel Barrymore, Veronica Lake, and Dan Dailey, as well as the prolific television couple Lucille Ball and Desi Arnaz.[26]

4.2 Postwar Development of Chatsworth

Prior to World War II, Chatsworth largely remained a "quiet agricultural community," its population meager even by Valley standards.[27] However, like much of the Valley after the war, Chatsworth experienced tremendous development and growth, turning the once rural community into a sprawling and populous suburb. The community's vast expanses of agricultural land were soon swallowed up by mass-produced residential neighborhoods accompanied by an influx of commercial and institutional development. One-story strips malls and shopping plazas lined Chatsworth's major boulevards, and new public schools, parks, and churches were constructed in and around new residential tracts to serve the community's burgeoning population. Beginning in the mid-1950s, large tracts of land adjacent to the Southern Pacific Railroad tracks were rezoned to accommodate a variety of industrial uses, including manufacturing plants, service centers, and research and development laboratories. Aerospace and defense contractors, including Thompson-Ramo-Woolridge, and Atomics International, were among Chatsworth's foremost employers.[28]

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[24] "Chatsworth Celebrates 125 Years as an Anchor of the North San Fernando Valley," in *Chatsworth/Porter Ranch Chamber of Commerce Business Directory 2013-2014,* 19.
[25] Jerry England, *Reel Cowboys of the Santa Susanas* (Chatsworth: ECHO Press, 2008).
[26] Virginia Watson, "Movie Personalities Lived in Chatsworth," *Chatsworth Past and Present* (n.d.); Roderick, 92-93; "Stars' Homes Periled by Chatsworth Blaze," *Los Angeles Times*, November 11, 1950.
[27] Sharon L. Warzocha, "Lifestyle Options in Wide-Open Space," *Los Angeles Times*, May 19, 1991, K2.
[28] Al Johns, "West San Fernando Valley Explodes," *Los Angeles Times*, March 13, 1960, J1.

Chatsworth's development continued through the 1970s and into the present day with new gated residential neighborhoods in the Chatsworth hills, commercial infill on its corridors, and a several-hundred-acre industrial tract adjacent to the Browns Canyon channelized wash and the Metro Orange Line bus right-of-way (following the former Southern Pacific Railroad line).

4.2.1 Postwar Commercial Development

Lured by the industrial job market and the suburban lifestyle Chatsworth offered, thousands of families moved to the community after World War II, prompting the need for additional commercial services. Beginning in the 1950s, a number of zoning variances were passed to change areas zoned for agricultural use to commercially-zoned areas. By 1960, 139 acres were zoned for commercial use and another 104 acres for parking.[29] By the mid-1960s, commercial centers had developed at several major intersections, including Canoga Avenue and Devonshire Street, Mason Avenue and Devonshire Street, Lassen Street and De Soto Avenue, and Lassen Street and Mason Avenue (the subject property). Postwar commercial growth primarily consisted of low-scale shopping plazas and strip malls fronted by large paved parking lots. These shopping centers typically contained drug stores, coffee shops, dry cleaners, and supermarkets that catered to the daily needs of its surrounding residential neighborhood.

In an effort to maintain Chatsworth's small-town, suburban appeal, residents have fought to uphold low-density zoning ordinances and limit higher-density residential and large-scale commercial development. As such, the community's commercial growth has largely been restricted to areas that had been developed for commercial use since the 1960s and '70s.

4.3 History of Safeway Stores, Inc.

The Safeway supermarket chain's origins date to the 1911 when Sam Seelig opened his first grocery store on Figueroa Street in Los Angeles. By 1922, the Seelig Co. operated over 100 stores in the city.[30] In 1925, Seelig passed control of the company to its distributor and largest creditor, W.R.H. Weldon, who

[29] "Chatsworth Land Pattern Being Readied," *Los Angeles Times*, February 21, 1960, SF6.
[30] "Safeway History," *Groceteria: Exploring Supermarket History*, accessed September 2, 2016, http://www.groceteria.com/store/national-chains/safeway/safeway-history/.

subsequently changed the name of the chain to Safeway Stores, Inc.[31] In 1926, an investment group organized by Merrill, Lynch and Co. acquired 80 percent of the Safeway Stores stock for $3.5 million. Upon acquisition, Charles Merrill began searching for a merger partner and potential CEO for his new grocery store chain. Shortly thereafter, Merrill met Marion Skaggs, owner of the 1915 Skaggs grocery chain of American Falls, Idaho, and the two arranged a merger of the Safeway and Skaggs stores, resulting in one of the largest grocery chains in the western United States. Skaggs forewent control of his company in exchange for $1.5 million, 30,000 shares of the new company's stock, and the title of CEO. It was agreed the company would ultimately operate under the Safeway name (former Skaggs stores operated under the Skaggs-Safeway name while transitioning), and Oakland, California was chosen as its new headquarters.[32]

In 1926, Safeway Stores, Inc. began acquiring additional grocery store companies throughout the United States, including 85 stores operated by the Chaffee chain in Southern California.[33] Between 1926 and 1928, Safeway absorbed the Knoblock and Eastern Stores of Baltimore, Maryland; Sanitary of Washington, D.C. and Richmond, Virginia; the Sun chain of Tulsa, Oklahoma; Newway of El Paso, Texas; and MacDonald of Canada.[34] By 1928, Safeway operated over 2,000 stores throughout the United States and Canada, with a total estimated sales of $125 million.[35]

[31] "Seelig's Chain Is Now Safeway," *Los Angeles Times*, March 15, 1925, B8.
[32] "Safeway History."
[33] "Merger of Groceries Completed," *Los Angeles Times*, March 30, 1926, A2.
[34] "Safeway History."
[35] Earle E. Crowe, "Grocery Store Expands: Safeway System, Including Two Pioneer Los Angeles Concerns, Now Includes 2000 Stores," *Los Angeles Times*, October 2, 1928, 12.

On July 10, 1931, it was announced that Safeway Stores, Inc. and MacMarr, a grocery chain acquired by Charles Merrill in 1929, would merge. The MacMarr Corporation was the result of a merger between the Ross McIntyre grocery chain of Portland, Oregon and the Charles Marr chain of Spokane, Washington. After creating the MacMarr Corporation, Charles Merrill acquired several west coast chains, and by 1930, MacMarr was operating more than 1400 stores.[36] The 1931 Safeway-MacMarr merger made Safeway the second largest grocery in the country.[37] Though growth slowed during the Great Depression, Safeway



Figure 7. Safeway store on Sunset Boulevard, 1937 (Los Angeles Public Library).

continued to make a profit. It was during the Depression that Safeway consolidated most of its stores, combining produce, groceries, meats, and self-service into a single "supermarket" style building, often featuring ample on-site parking.[38]

The end of World War II brought tremendous growth for the grocery chain. In 1946, the company reported a 25 percent increase in sales from the year prior, a

[36] "Safeway History."
[37] The Great Atlantic and Pacific Tea Company was the largest grocery at the time; "Safeway History."
[38] "Safeway History."

trend that continued in the following decades.[39] In 1957, Safeway became the first western business and the youngest company in the country to exceed the $2 billion annual sales market. By the time the Safeway market opened at the corner of Lassen Street and Mason Avenue in Chatsworth, annual sales had surpassed $2.3 billion.[40]

The Safeway supermarket at 9825 N. Mason Avenue was part of the chain's major expansion program in the 1960s. In addition to new stores in California and throughout the United States, multiple international stores opened in the United Kingdom in 1962, Australia in 1963, and Germany in 1964.[41] The expansion program coincided with the development of a new "Safeway style," featuring bolder, more dynamic rooflines compared to the flat roof variations typical of early 1950s Safeways.

Following a decline in sales and a reduction in stores in the 1970s, the company began to expand, with acquisitions of markets in Australia and Northern California in the early 1980s. Following a hostile takeover bid by the Dart Group, owners of Trak Auto and Crown Books, Safeway was acquired by the New York investment firm of Kohlberg Kravis Roberts & Co.[42] The acquisition resulted in the company's privatization and the accumulation of tremendous debt. Half of its stores were sold, and Safeway's presence was reduced to Northern California (its Southern California stores were sold to Vons), a few western states, and Washington, D.C.[43]

Safeway began to recover from its 1980s acquisition beginning in the early 1990s when it went public again in an effort to fund growth. In 2015, the company's partner, AB Acquisition LLC, and Safeway completed a merger that created one of the largest food and drug stores in the nation. Safeway currently operates over 2,200 stores in 19 states.[44]

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[39] "Safeway Store Sales Show Upward Trend," *Los Angeles Times*, March 31, 1946.
[40] "Safeway Net, Sales Set New Records," *Los Angeles Times*, February 5, 1960, 21.
[41] "Safeway History."
[42] Nancy Rivera Brooks, "Safeway Agrees to Sale Valued at $4.1 Billion," *Los Angeles Times*, July 28, 1986.
[43] "Safeway History."
[44] "Safeway: Our Story," Safeway, Inc., accessed September 14, 2016, http://www.safeway.com/ShopStores/Our-Story.page.

4.4 Mid-Century Modernism

The former Safeway supermarket at 9825 N. Mason Avenue is an excellent example of Mid-Century Modern architecture applied to a commercial property. Mid-Century Modern is a classification often used to describe the various iterations of postwar Modern styles and substyles. It is a product of the International Style, which emerged out of Europe in the 1920s and is characterized in part by simple geometric forms and expressed structure and materials, and the work of local architects such as Frank Lloyd Wright, Rudolph Schindler and Irving Gill, who were working toward the establishment of a new American architecture. The resulting aesthetic represented a convergence of these two schools and the adaptation of their ideas and principles to the local climate, innovative new building technologies, and the postwar need for efficiently-built buildings and infrastructure to serve a growing population.

The basic characteristics of Mid-Century Modernism reflect the influence of the International Style and its expansion in the postwar era with the advent of new technologies in building and engineering. The style is generally characterized by its horizontal massing, geometric forms, smooth and textured contrasting wall surfaces, large expanses of glass, absence of exterior ornamentation, and expressed construction of wood, steel or concrete. Mid-Century Modernism is extremely versatile, lending its application to a number of property types, from single-family residences to commercial strips. The architectural mode is the most prolific of all the postwar modern styles, employed by local builders and noted architects alike.

4.4.1 Safeway Architecture in the 1950s and '60s

In the late 1950s and early 1960s, Safeway Stores, Inc. adopted a new, modern aesthetic for its buildings aimed at creating a "unique visual identity," that would be recognizable worldwide.[45] Two main postwar variations of the Safeway supermarket were created and applied across the country and internationally in the United Kingdom, Australia, and Germany. Both variations exemplify the tenets of Mid-Century Modern architecture.

[45] Peter Allen, "A Space for Living: Region and Nature in the San Francisco Bay Area, 1939-1969," (dissertation, University of California, Berkeley, 2009), 186.

The first of the variations was known as the Marina type. The Marina type was named after the first store of its design, which opened in 1959 in the Marina district in San Francisco; it was designed by noted San Francisco architects Wurster, Bernardi and Emmons.[46] The Marina type features a low-pitched barrel- or bell-shaped roof and extensive glazing at its primary façade. The glazed entry is typically flanked by walls clad with masonry, textured concrete, or wood screens. The building's structural system is often expressed through its glue-laminated (glulam) beams visible at the eaves, gable end, and ceiling of the interior.



Figure 8. Marina Safeway, San Francisco, 1959 (San Francisco Public Library).

The second, and lesser-known, variation is similar to the Marina type, but it has a gable roof rather than a barrel- or bell-shaped roof. Like the Marina type, the low-pitched gable roof type became popular in the late 1950s and early 1960s. In addition to its low-pitched gable roof the type often retains wide eaves with exposed glulam beams, and a large glazed window system flanked by walls of masonry, textured concrete, or wood screens. The former Safeway supermarket at 9825 N. Mason Avenue is an example of the low-pitched gable roof type.

[46] "Mass Culture in a Modern World," *San Francisco Chronicle*, published March 31, 2013, http://www.sfgate.com/default/photo/The-Marina-Safeway-which-opened-in-1959-was-the-4395562.php.

In the 1970s, Safeway began to move away from its 1960s Mid-Century Modern designs in favor of boxier silhouettes and unarticulated stucco surfaces, typical of chain stores to this day.



Figure 9. Safeway in Downey, CA. Example of the low-pitched gable roof type, n.d. (Los Angeles Public Library).

5. State and Local Eligibility Criteria

5.1 California Register of Historical Resources

The California Register of Historical Resources (California Register) is the authoritative guide to the state's significant historical and archeological resources. In 1992, the California legislature established the California Register "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[47] The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for historic preservation grant funding; and affords certain

[47] California Public Resource (CPR) Code, Section 5024.1 (a).

protections under CEQA. All resources listed on or formally determined eligible for the National Register are automatically listed in the California Register. In addition, properties designated under municipal or county ordinances, or through local historic resources surveys, are eligible for listing in the California Register.

For inclusion in the California Register, a historical resource must be significant at the local, state, or national level under one or more of the following criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

2. It is associated with the lives of persons important to local, California, or national history; or

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area state or the nation.[48]

For listing in the California Register, a property must be eligible against one or more of the above criteria, and it must retain integrity. Integrity is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. For inclusion in the California Register, "historical resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance."[49] Integrity is evaluated with regard to the retention of the following seven aspects: location, design, setting, materials, workmanship, feeling, and association.

There is no prescribed age limit for listing in the California Register, although California Register guidelines state that "sufficient time must have passed to

[48] California Public Resources Code SS5024.1, Title 14 CCR, Section 4852.
[49] California Office of Historic Preservation, *Technical Assistance Series #6,* 2.

obtain a scholarly perspective on the events or individuals associated with the resource."[50]

Resources may be nominated directly to the California Register. They are also automatically listed in the California Register if they are listed in or have been officially determined eligible for the National Register. State Historic Landmarks #770 and forward are also automatically listed in the California Register.[51]

The California Historical Resource Status Codes are a series of ratings created by the California Office of Historic Preservation (OHP) to identify the historic status of resources listed in the State's historic properties database. These codes were revised in August 2003 to better reflect the many historic status options available to evaluators. The following are the seven major status code headings:

1. Properties listed in the National Register or the California Register.
2. Properties determined eligible for listing in the National Register or the California Register.
3. Properties that appear eligible for listing in the National Register or California Register through survey evaluation.
4. Properties that appear eligible for listing in the National Register or California Register through other evaluation.
5. Properties recognized as historically significant by local government.
6. Properties that are not eligible for listing or designation.

[50] California Office of Historic Preservation, *Technical Assistance Series #6,* 3. According to the *Instructions for Recording Historical Resources* (Office of Historic Preservation, March 1995), "Any physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's filing system. Documentation of resources less than 45 years old may also be filed if those resources have been formally evaluated, regardless of the outcome of the evaluation." This 45-year threshold is intended to guide the recordation of potential historical resources for local planning purposes, and is not directly related to an age threshold for eligibility against California Register criteria.

[51] State of California, Office of Historic Preservation, Department of Parks and Recreation, California Office of Historic Preservation, *Technical Assistance Series #5: California Register of Historical Resources: The List Process,* 1.

7. Properties that are not evaluated for listing in the National Register or California Register or that need reevaluation.

Under each status code heading, properties are then given a letter code which indicates whether the resource is eligible individually (S), eligible as part of a district (D), or both (B).

5.2 City of Los Angeles Cultural Heritage Preservation Ordinance

This City of Los Angeles's Cultural Heritage Ordinance, enacted in 1962, lays out local regulations pertaining to the identification and protection of cultural and historical resources within the city. The Los Angeles City Council designates Historic-Cultural Monuments on recommendation of the City's Cultural Heritage Commission. Any individual or group may submit nominations for Historic-Cultural Monument status.

Under provisions guiding the preservation of historical resources, the City of Los Angeles has established a set of criteria under which a resource within the city can be found eligible as a historic resource. Per Chapter 9 Section 22.171.7 of the City's Administrative Code, a historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historic or cultural significance to the City of Los Angeles, meaning that it meets one or more of the following criteria:

1. It reflects or exemplifies broad cultural, political, economic, or social history of the nation, state, or community; or

2. It is identified with historic personages or with important events in the main currents of national, state, or local history; or

3. It embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction; or

4. It is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

6. Evaluation of Historical Significance

6.1 Previous Evaluations and Studies

A search of California's Historic Resources Inventory (HRI) and City of Los Angeles' historic resources surveys and designated Historic-Cultural Monuments revealed that the buildings located at 9733-9745, 9749-9753, 9755-9765, 9805, and 9835-9849 N. Mason Avenue; and 20504 and 20524 W. Lassen Street have not been identified as potential historic resources.

The former Safeway supermarket at 9825 N. Mason Avenue has been previously evaluated for historical significance. A search of City of Los Angeles documents conveyed the following:

Between June 2014 and June 2015, Architectural Resources Group (ARG) conducted a survey of the Chatsworth-Porter Ranch Community Plan Area (CPA) as part of the City of Los Angeles's citywide historic resources survey (SurveyLA). The Chatsworth-Porter Ranch CPA survey identified 30 potentially significant individual resources. The survey gave the property at 9825 N. Mason Avenue (the former Safeway) a 3 status code, indicating the building appears individually eligible for the National Register through survey evaluation.

6.2 Evaluation of Significance

With the exception of the former Safeway supermarket (9825 N. Mason Ave.), none of the properties on the Project site appear eligible for listing in the California Register of Historical Resources or as a Historic-Cultural Monument under the City of Los Angeles Cultural Heritage Preservation Ordinance.

Due to their nearly identical development history, all commercial buildings on the Project site (excluding 9825 N. Mason Ave.) received a single evaluation under California Register and local criteria. The single-family residence (20524 W. Lassen St.) received a separate evaluation under state and local criteria.

The property has not been evaluated under Criterion 4 of the California Register, which deals with the information potential of archaeological resources that may be contained by the property.

California Register of Historical Resources	
Property	**Determination**
9733-9745 N. Mason Ave. 9749-9753 N. Mason Ave. 9755-9765 N. Mason Ave. 9805 N. Mason Ave. 9835-9849 N. Mason Ave. 20504 W. Lassen St.	Extensive research did not indicate any significant historical associations with the buildings. The buildings do not appear eligible for listing under California Criterion 1 for association with a significant event or pattern of events. Constructed between 1960 and 1961, the buildings are generally associated with postwar commercial development in the Chatsworth community, prompted by Southern California's population boom and subsequent need for additional services after World War II. The buildings were among hundreds of commercial properties constructed along Chatsworth's major corridors in the postwar period, and are not unique in their ability to convey this association. The buildings are not associated with significant persons (Criterion 2). All of the buildings have been owned by multiple individuals, none of whom appeared to be significant to local, state, or national history. The properties are modest, vernacular retail buildings and are not architecturally significant. Furthermore, none of the architects or builders listed on building permits (see chart above under the "Property Description and Development" section) appear to rise to the level of master. Thus, the buildings appear ineligible under Criterion 3. Evaluation for potential for archaeological significance of the property under Criterion 4 is outside of the scope of this report.
City of Los Angeles Cultural Heritage Preservation Ordinance	
Property	**Determination**
9733-9745 N. Mason Ave. 9749-9753 N. Mason Ave. 9755-9765 N. Mason Ave. 9805 N. Mason Ave. 9835-9849 N.	Though broadly associated with widespread postwar commercial development that occurred in Chatsworth and throughout Southern California, the commercial buildings are not unique in their ability to convey this association, and therefore do not appear eligible under local Criterion 1. None of the buildings identify with significant persons or important local, state, or national events and thus do not appear eligible under local Criterion 2. All of the properties are modest, vernacular retail buildings and do not possess distinguishing characteristics of a style, period, or method of construction. Moreover, research did not indicate the architects and builders associated with the properties rise to the level of master. Thus, the

Mason Ave.	buildings appear ineligible under local Criteria 3 and 4.
20504 W. Lassen St.	
California Register of Historical Resources	
Property	**Determination**
20524 W. Lassen St.	The property has associations with Chatsworth's early agricultural history as a 1920s farm house. However, due to alterations, it does not retain sufficient integrity to convey this association. Along with the addition to the west elevation of the building, all of its fenestration has been removed, boarded up, or replaced, and windows appear to have been added to the side elevations. Furthermore, the building's agricultural setting was diminished when the orchards comprising the farm were uprooted beginning in the early 1950s. Thus, the property does not appear eligible under California Criterion 1. The building is associated with the Giuseppe Viarengo family who owned and occupied the residence and farm until at least 1940. Giuseppe Viarengo was an Italian immigrant who arrived in California by way of New York around 1919. The 1930 U.S. Census lists Giuseppe as a "general farmer." By 1956, most of the farm had been subdivided, and the house had been sold to John H. Newman. By 1991, Theodore Lapadakis of Hercules Real Estate and Property Management (and of Hercules Distribution, Ltd.) owned the property. Research did not indicate these individuals were significant to the history of the city, state, or nation. As such, the building does not appear eligible under Criterion 2. The residence was constructed as a modest, vernacular interpretation of the Craftsman style, with no distinguishing characteristics, and, though the architect and builder are unknown, its modesty does not suggest it is the work of a master. Thus, the building does not appear eligible under Criterion 3. Evaluation for potential for archaeological significance of the property under Criterion 4 is outside of the scope of this report.
City of Los Angeles Cultural Heritage Preservation Ordinance	
Property	**Determination**
20524 W. Lassen St.	Though the single-family dwelling is associated with significant geographical patterns related to early agricultural development

	in Chatsworth, a condition of local Criterion 1, the residence and its original farm setting have been altered and no longer convey this historic association. Per the above discussion under California Criteria, the building is not associated with significant persons, and it does not identify with important local, state, or national events. As such, the property does not appear eligible under Criterion 2. The dwelling is a modest, vernacular interpretation of Craftsman architecture and does not possess distinguishing characteristics of the style, period, or method of construction. Moreover, though the architect and builder are unknown, given its modesty, it is unlikely the building is associated with a master. Thus, the building does not appear eligible under local Criteria 3 and 4.

6.2.1 9825 N. Mason Avenue (former Safeway)

California Register of Historical Resources

The building at 9825 N. Mason Avenue appears eligible under Criterion 3 of the California Register.

Criterion 1: Association with a significant event or pattern of events.

The former Safeway supermarket at 9825 N. Mason Avenue is generally associated with the widespread commercial development that occurred in Chatsworth and throughout Southern California after World War II. However, the property was one of hundreds of commercial buildings constructed in Chatsworth in the postwar period and is not unique in its ability to convey this association. Thus, the building does not appear eligible under California Register Criterion 1.

Criterion 2: Association with the life of a significant person.

The building was originally owned by Don Mallas and occupied by Safeway. In 1970 Theodore Lapadakis, then-owner of the Hercules Distribution company, acquired the building and turned it into offices and storage. Research did not indicate either of these individuals is significant to local, state, or national history. Thus, the building does not appear eligible under Criterion 2 of the California Register.

Criterion 3: Embodies the distinctive characteristics with a type, period, or method of construction or possesses high artistic values, or represents the work of a master.

The property at 9825 N. Mason Avenue was designed by architect George Kirkpatrick as a Mid-Century Modern-style supermarket. The building embodies the essential character-defining features of Mid-Century Modern architecture, including its horizontal massing (conveyed through its low-pitched roof), planar concrete and brick wall surfaces, large expanses of glazing at the primary elevation, and expressed structural system (i.e. exposed glulam beams).

Additionally, the building retains distinctive characteristics of the low-pitched gable roof model, a prominent design prototype for Safeway stores in the late 1950s and 1960s. In an effort to create a unique identity for their supermarkets that would be recognizable worldwide, Safeway developed two standard models in the late 1950s and 1960s – the Marina style and the low-pitched gable roof type – the latter of which 9825 N. Mason Avenue embodies. The building's low-pitched, asymmetrical roofline, exposed glulam beams, and glazed entry bounded by masonry-clad walls were primary features in the design of Safeway's prototype. For these reasons, the subject property appears eligible under Criterion 3 of the California Register.

Criterion 4: Potential to yield information important to prehistory or history.

While an archaeological assessment of the property is outside of the scope of this report, there is no known evidence that the building is associated with a known archaeological site or may be likely to yield information important in history or prehistory. It does not appear to be eligible under California Register Criterion 4.

City of Los Angeles Cultural Heritage Preservation Ordinance

The building at 9825 N. Mason Avenue appears eligible for local listing as a Historic-Cultural Monument under Criterion 3 the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 1: It reflects or exemplifies broad cultural, political, economic, or social history of the nation, state, or community.

The building at 9825 N. Mason Avenue broadly reflects the widespread commercial development experienced in Chatsworth and throughout Southern California in the postwar period. Though generally associated with this development boom, the property was one of many retail buildings constructed in the area during this time and is not unique in its ability to convey this association. Thus, the building does not appear eligible under Criterion 1 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 2: It is identified with historic personages or with important events in the main currents of national, state, or local history.

Per its evaluation under California Register Criterion 2, research did not indicate the individuals who have owned the building were significant to local, state, or national history. Moreover, though broadly associated with Chatsworth's postwar commercial development, research did not suggest the commercial building identifies with significant national, state, or local events. Thus, the property does not appear eligible under Criterion 2 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 3: It embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction.

Per its evaluation under California Register Criterion 3, the building at 9825 N. Mason Avenue embodies distinguishing characteristics of the Mid-Century Modern style as well as Safeway's low-pitched gable roof design, a prototype developed by the company in the postwar period. The building's low-pitched roof, expansive use of glazing at the entry, unornamented wall surfaces, and expressed structural system are characteristic of both the Mid-Century Modern style and low-pitched gable roof type. Thus, the former supermarket appears eligible under Criterion 3 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

Local Criterion 4: It is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

9825 N. Mason Avenue was designed by architect George Kirkpatrick and constructed by Richard Hall and the Modiano Construction Co. In addition to the supermarket, Kirkpatrick designed three other commercial buildings located in the Lassen-Mason shopping center. Research did not indicate George Kirkpatrick or Richard Hall was a master builder, designer, or architect. Therefore, the subject property does not appear eligible under Criterion 4 of the City of Los Angeles's Cultural Heritage Preservation Ordinance.

6.3 Evaluation of Historical Integrity

The building at 9825 N. Mason Avenue retains sufficient integrity to convey its significance as a Mid-Century Modern supermarket. Its integrity of location, setting, workmanship, feeling, and association are largely intact. Though design and materials have been somewhat diminished due to alterations made to the

building over time, no aspects of integrity have been lost altogether. The following is a detailed discussion of the building's integrity as it relates to its period of significance: 1961 under Criterion 3.

Location

The former Safeway supermarket has not been moved and remains in its original location. Therefore, it retains its integrity of location.

Design

The building at 9825 N. Mason Avenue is a Mid-Century Modern-style commercial building designed by George Kirkpatrick, a local architect who designed multiple buildings in the Lassen-Mason shopping center. Its original design was characterized by an open floor plan; horizontal massing; low-pitched, asymmetrical gable roof; unornamented brick and concrete cladding and finishes; exposed glulam beam roof structure; and entry composed of fixed aluminum windows and fully-glazed aluminum doors. The overall design of the building was intended to create a unique and recognizable identity for Safeway stores worldwide.

The building has endured some alterations to its original design. Its conversion into an office and storage space in 1970 resulted in the subdivision of its original open floor plan. At the same time, a mezzanine was added in the gable end of the primary (east) elevation, resulting in the alteration of original fixed aluminum windows and the installation of smaller aluminum sliders. Some of the windows at the primary elevation have been replaced with vertical wood paneling as well, and additional entrances were created at the north end of the east elevation and along the north elevation.

Although the building has undergone some alterations, its overall form and most of its original features and materials are intact enough to convey its original design. Therefore, the building retains its integrity of design.

Setting

Since its completion in 1961, the subject property has served as the anchor to a small commercial retail center at the corner of Lassen Street and Mason Avenue. The building sits at the north end of a one-story commercial strip. North of the building is a partially paved parking lot, additional 1960s commercial properties, and a modest 1920s farm house, a remnant of the original farm that comprised the commercial complex site prior to the 1950s. Since the 1960s and '70s, the area north, east, and west of the property has been characterized by single-family

residential development, and the area south of the property has been largely developed with industrial buildings. Since the general character of the property site and its surroundings have remained the same, the former supermarket retains its integrity of setting.

Materials

The building at 9825 N. Mason Avenue sits on a concrete foundation and is constructed of wood and reinforced concrete panels. The building's primary (east) and north façades are partially clad in brick veneer, and a grouping of aluminum windows and fully-glazed aluminum doors comprise the main entrance to the building. Though some of its fenestration has been replaced with new aluminum fenestration, most of the building's materials remain intact. Thus, the property retains its integrity of materials.

Workmanship

The workmanship of the former Safeway store is characterized by the use of durable, prefabricated, and mass-produced components (glulam beams, precast concrete panels, and aluminum-framed fenestration), which were used in the construction of Safeways worldwide during the postwar period. The details of the decorative brickwork cladding the front wall are also intact. Given the overall materials and means of construction remain largely intact, the building retains its integrity of workmanship.

Feeling

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. Though features of the interior of the building, such as its open floor plan, have been obscured, the property is still recognizable as a 1960s Safeway supermarket. Its embodiment of the low-pitched gable roof model, which was used extensively by Safeway stores after World War II, is identifiable through its characteristic roofline and glazed central entrance bounded by walls of brick cladding. Furthermore, its materials and setting are largely intact. Thus, the building retains its integrity of feeling.

Association

Though the property no longer functions as a supermarket, the building's original design intent is still apparent, as is its appearance as a Mid-Century Modern commercial building. Given its intact Mid-Century Modern design, an architectural mode that characterized 1950s and '60s Safeway supermarkets and Southern California's postwar architectural landscape in general, the building retains its integrity of association.

7. Impacts Analysis

7.1 Summary of Findings

The following properties, located on the Lassen-Mason Project site, were evaluated for potential historical significance.

- 9733-9745 N. Mason Avenue
- 9749-9753 N. Mason Avenue
- 9755-9765 N. Mason Avenue
- 9805 N. Mason Avenue
- 9835-9849 N. Mason Avenue
- 20524 W. Lassen Street
- 20504 W. Lassen Street
- 9825 N. Mason Avenue

As a result of this historical resources assessment, ARG finds all properties except for the building at 9825 N. Mason Avenue ineligible for listing in the California Register or as a Historic-Cultural Monument under the City of Los Angeles Cultural Heritage Preservation Ordinance.

The former Safeway supermarket (9825 N. Mason Ave.) retains sufficient integrity to convey its significance as a Mid-Century Modern-style supermarket. It appears eligible under California Register Criterion 3 and City of Los Angeles Cultural Heritage Preservation Criterion 3, and is therefore a historical resource for the purposes of CEQA.

7.2 Significance Threshold

A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. According to California CEQA Guidelines, a project has the potential to impact a historical resource when the project involves a “substantial adverse change” in the resource’s significance. Substantial adverse change is defined as “physical demolition, destruction, relocation, or alteration of the resource or its

immediate surroundings such that the significance of an historical resource would be materially impaired." [52]

> The significance of an historical resource is materially impaired when a project:
>
> a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources; or
>
> b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project by a preponderance of evidence that the resource is not historically or culturally significant; or
>
> c) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for the purposes of CEQA.[53]

According to the City of Los Angeles CEQA Thresholds Guide (2006, p. D.3-3 to D.3-4), a project would normally have a significant impact on historical resources if it would result in a substantial adverse change in the significance of a historical resource. A substantial adverse change in significance occurs if the project involves:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and significance of a significant resource;

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[52] CEQA Guidelines, Section 15064.5.
[53] CEQA Guidelines, Section 15064.5.

- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or

- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.[54]

7.3 Secretary of the Interior's Standards

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* were developed by the National Park Service and are referred to by Federal, State, and local authorities as well as architects and other historic preservation professionals to guide the treatment of historic properties.[55] Four treatment approaches are defined for historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. The National Park Service advises that the approach most appropriate to the historic property and to the project should be identified by considering, among other factors, the relative importance of the historic resources, its physical condition, the proposed use, and whatever mandated code requirements may apply.

Since the building to be potentially impacted is generally being considered for alterations and additions to accommodate new uses, the *Secretary of the Interior's Standards for Rehabilitation* (the *Standards*) are the appropriate treatment approach to apply to the Project. Rehabilitation as a treatment approach is defined as follows:

> (T)he act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.[56]

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[54] City of Los Angeles CEQA Thresholds Guide (2006), D.3-3 to 3-4.
[55] Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Washington D.C.: U.S. Department of the Interior, National Park Service, 1995).
[56] The Standards and Guidelines can be found on the internet at http://www.cr.nps.gove/hps/tps/standguide/. They are also found in the book by Weeks and Grimmer referred to in the previous footnote. A PDF of the book can be found at this URL: http://www.nps.gov/tps/standards/four-treatements/treatment-guidelines.pdf.

The *Secretary of the Interior's Standards for Rehabilitation* are as follows:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and

massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The *Standards* are applied in order to determine impacts to historic resources under CEQA. Typically, the *Standards* are applied on a project-level basis. A project that meets the *Standards* is considered to have no adverse effect on historic resources. Below is an analysis of the proposed project in terms of its impact on the historic resource of the former Safeway store, which was identified as potentially significant in SurveyLA and evaluated as eligible for Los Angeles Historic-Cultural Monument listing in this report.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The project meets Standard #1. The adaptive reuse of the building as a fitness club requires features and spaces not dissimilar to those of a supermarket: a retail presence on the front façade and a large open central interior space, supplemented with smaller functional spaces to support the activities of the main space.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

The Project meets Standard #2. The removal of some of the buildings on the site that were constructed as a part of the same shopping center does not impact the integrity of the former Safeway store, which is significant in its own right without the neighboring buildings. The resource will remain attached to a row of existing shops. Although these will be remodeled, the basic configuration of a large retail building set in a parking lot and connected to a strip of smaller retail will be maintained as its setting, preserving spatial relationships.

The interior spaces of the building were previously altered when the building was converted from a supermarket to a distribution center. A

largely open interior will be maintained in the new use. The remaining interior features that impact the property's character are the gluelam beams. These are a part of the structure of the building and will not be altered.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The Project meets Standard #3. No conjectural features or elements from other historic properties are proposed as a part of the treatment of the former Safeway or surrounding buildings.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

The Project meets Standard #4. No changes to the property outside of the period of significance were identified that have acquired significance over time. The period of significance is the year that the property was constructed, which is when it acquired its character-defining features.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The Project meets Standard #5. The property's distinctive materials and features include buff brick cladding, front planters, a mostly glazed front façade, a concrete frame, and gluelam roof beams exposed on the interior and extending to the exterior eaves. All of these exterior features will be preserved and new signage will be incorporated with the same design and placement strategy as the original signage.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

The Project can meet Standard #6 with the provisions detailed in Section 7.4, Treatment Recommendations, below, in which each character-

defining feature identified and the potential impact of the Project is called out separately.

To repair poorly patched areas of the brickwork, damaged brick should be replaced with salvaged matching brick from the demolished buildings on the property.

To repair the colored obscure glass cut-outs in the brick walls on the primary façade, the glass must be salvaged and remounted in the same locations with new glazing sealant/putty.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The Project meets Standard #7. No such treatments are anticipated to be necessary for historic materials, which are limited to brick, gluelam beams, and painted concrete.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Analysis of any impacts under Standard #8 is outside of the scope of this report.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

The Project meets Standard #9. The Project involves adjacent new construction on the property and alteration of adjoining buildings that are not historic resources.

The alteration of adjoining buildings involves larger signage and remodeling of the facades and storefronts of nonhistoric components of the property and will not significantly diminish the setting of the former Safeway building. The Safeway building will maintain a similar parking lot setback and relationship to smaller adjacent retail stores.

The major exterior alteration to the building itself is additional glazed openings within the structural bays of the north façade. This is a secondary façade. The rhythm of the bays will remain visible with the concrete structural piers exposed. The solid wall that characterizes the infill of the bays will otherwise remain.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The Project meets Standard #10. New construction on the property does not destroy historic features of the former Safeway store or impair the integrity of its environment. The setting of the building will remain similar, with a large parking lot and adjacent one-story retail storefronts. As designed, the treatment of the building's exterior will not involve irreversible alterations that have an adverse impact on character-defining features.

7.4 Treatment Recommendations

In order to determine the Project's impact to historic resources, ARG has examined proposed designs for the façades of the former Safeway building. Based on these drawings and our field observation of the building, we recommend that the following treatments to character-defining features be incorporated as the project develops in order to avoid impacts to historic features. Where no impact to a feature is anticipated, it is so noted. These features were identified and listed in Section 3.1.2 (pp. 13-14), above.

- Horizontal massing
  No impact anticipated; massing of the building will not be altered by the proposed Project.

- Low-pitched gable roof
  To meet Standard #2, any enclosures for mechanical equipment that must be placed on the roof should avoid visibility from the primary façade or the main view from the northwest corner.

- Asymmetrical roofline
  No changes are proposed to the roofline.

- Exposed glulam roof beams, exposed at the gable ends, on the north façade eaves, and at the interior ceiling
  To meet Standards #2 and #5, where unpainted, gluelam beams should remain unpainted in order to show the striations of the layers of wood. This applies chiefly to the interior, as the exterior beam ends have been painted.

  Full interior treatment has not been developed. Beams should remain exposed; if they are covered, the treatment should be reversible (per Standard #2).

- Unornamented buff-colored brick veneer with raked horizontal joints
  To meet Standards #6 and #7, the brick of the front façade that has been poorly patched in limited areas on the façade and planters shall be cleaned of excess mortar and the bricks re-set properly to match adjacent unaltered surfaces and mortar joints. Any new brick that is needed for repairs should be salvaged from the smaller buildings on the site that were built concurrently of the same materials but which were determined not to be historic resources.

- Painted concrete wall panels
  No significant impact anticipated. The extent of openings on the north wall does not significantly impact this secondary façade. The essential character of a closed façade marked by concrete structural bays remains.

- Floor-to-ceiling window arrangement at the entrance to the primary (east) façade
  No significant impact anticipated. The Project plans indicate that this area of the façade will maintain the same configuration and non-original fenestration will be replaced. Entrance and exit will be through doors to either side of the center-front planter, an adaptation that requires no changes to the arrangement of brick features on the primary façade and can easily be incorporated into the new configuration of the storefront system.

- Corner window configuration at northeast corner.
  No significant impact anticipated. This area has been covered with wood paneling and will be restored to an open, fenestrated corner per configuration in the original drawings, improving the building's integrity of design.

- Fully-glazed aluminum doors at the east and north façades
  No significant impact anticipated. While a similar system was original to the building, the current storefront system is not historic material and

differs from the original. The new system proposed in the elevations will better reflect the historic appearance of the building in the divisions and configuration. This should improve the building's integrity of design.

- Pattern of punched rectangular windows with obscure glass in multiple colors at the primary façades.
  To meet Standard #2, salvage and reuse the colored glass, which is an original feature. Source similar glass where panes may be broken. Remount original glass in original openings with new sealant or putty as appropriate to maintain historic appearance of this feature.

- Projecting stuccoed fascia bisecting the glazed entry at the primary façade
  No significant impact anticipated. Planet Fitness signage will be mounted to the face of this feature, as it was historically.

- Circular impression at the top south corner of the primary façade
  No significant impact anticipated. Round Planet Fitness logo signage of appropriate sizing will be mounted within this feature, as it was historically.

8. Conclusion

The proposed Project involves the rehabilitation of one building, a former Safeway store, determined by this report to be a historic resource for purposes of CEQA. It also involves demolition of several buildings on the property that were determined not to be historic resources for purposes of CEQA. Their demolition will not impact historic resources. The adaptive reuse of the former Safeway building, which is the one historic resource on the property, involves its conversion to a fitness center, which is an appropriate new use that requires a minimum of changes to the historic resource. The project has developed to maintain the character-defining features of the exterior, particularly the roofline and the primary (east) façade. Minor changes, limited mostly to new openings, are proposed to the north façade, which is a secondary façade. This approach will maintain the major features of the façade while bringing more natural light to the interior and improving circulation. ARG has determined that the Project as presented meets the Secretary of the Interior's Standards and will not have a significant adverse impact on historic resources.

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Appendix A:
Images of former Safeway building



View west; general view of Safeway building in context of parking lot and adjacent, attached retail stores (left)



View west of primary façade.



View south, details of corner with nonoriginal siding infill (right), planters, beam exposed at top of wall, and other brick details.



View north of primary façade with attached, adjacent retail row.



View south, details of planter and brickwork. Nonoriginal storefront system and infill panels.



Detail of brickwork and punched decorative rectilinear cut-outs infilled with original colored glass on primary façade; here, shown north of entrance.



North façade close to northeast corner; altered fenestrated corner. Gluelam beams shown piercing the fascia.



North façade, view south of typical concrete panel bays of north façade (most are obscured by parked RVs). Nonoriginal light fixtures mounted on beam ends.



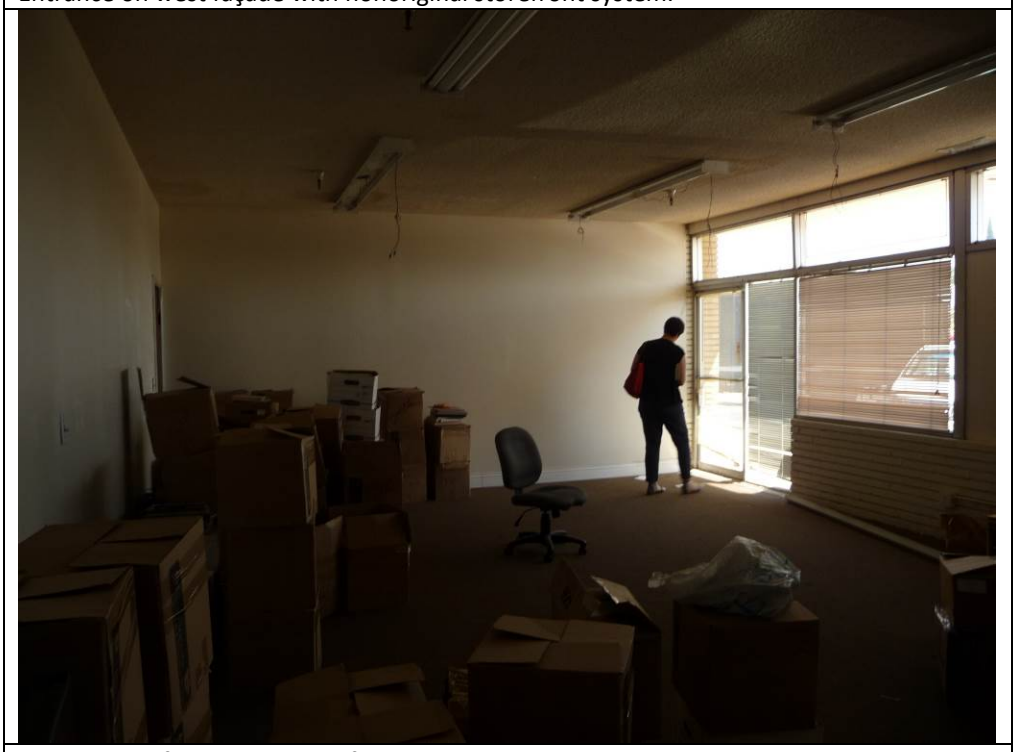
North façade, view south of typical concrete panel bays of north façade with typical nonoriginal opening.



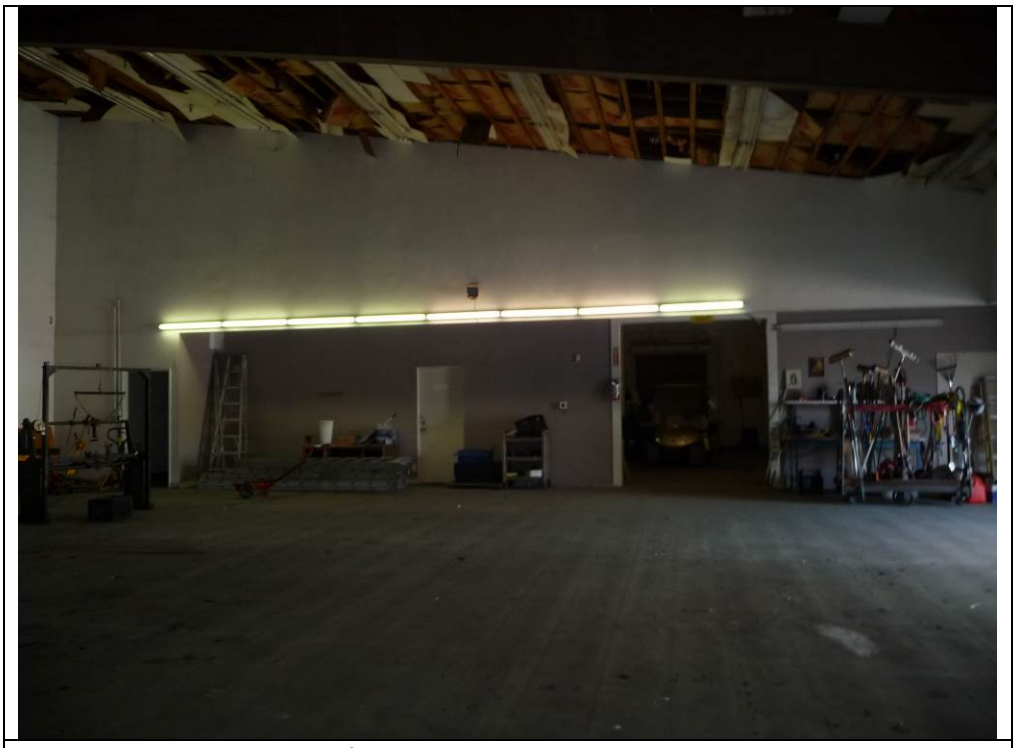
Rear (west) façade and loading dock, view east.



Entrance on west façade with nonoriginal storefront system.



Front room of interior on east façade, view north. Not an original or historic space, but subdivided at a later date.



Typical open space in center of building.



Typical open space in center of building. Note glulam beam, upper left.



Typical open space in center of building. Note typical six-inch pipe columns that support the apex of each glulam beam (noted in original plans).

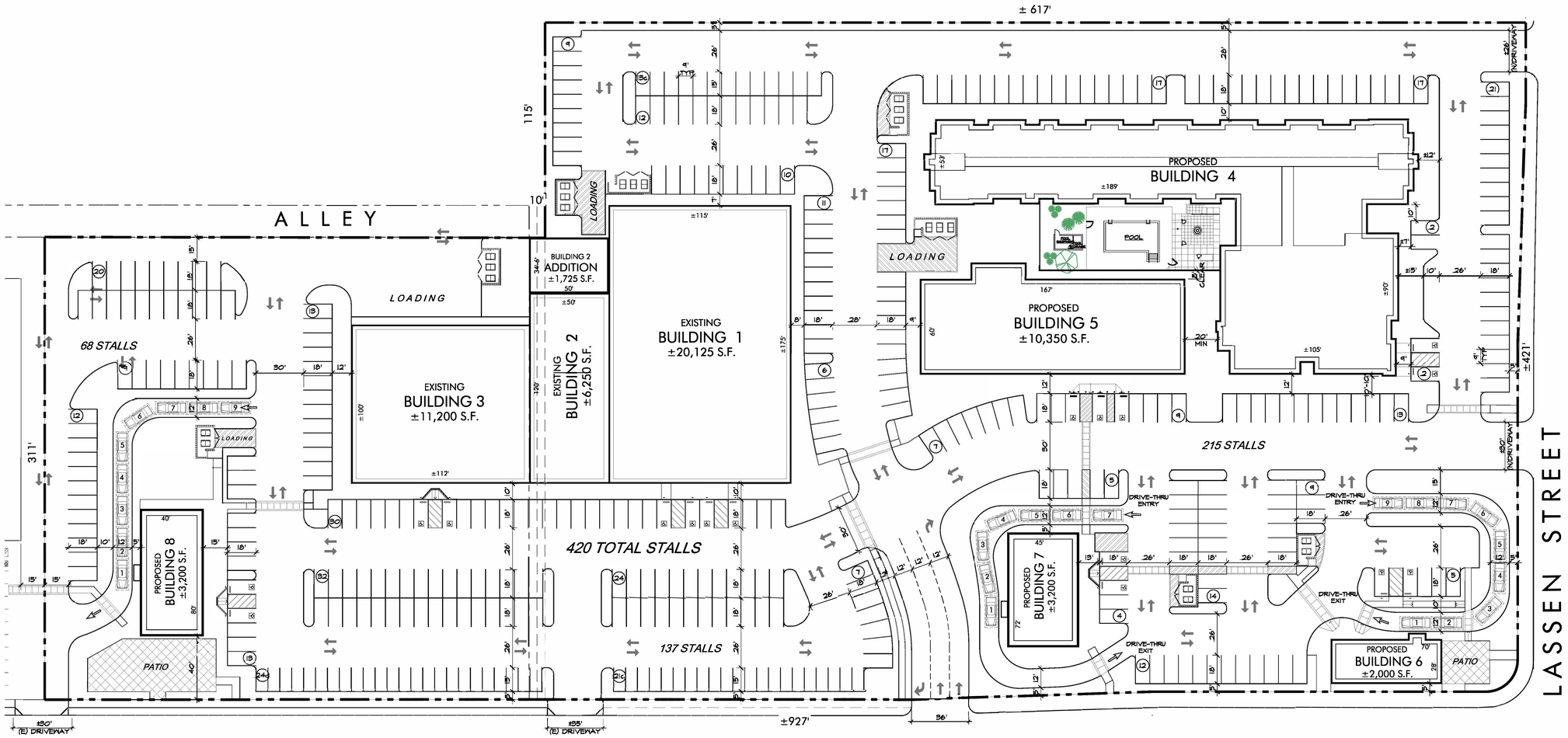


Fire-damaged ceiling in central space with glulam beams.

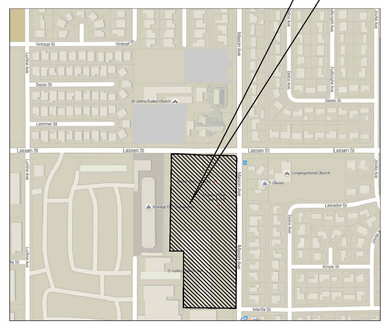


View east, typical hallway in subdivided areas of south side of the interior. Not historic spaces.

Appendix B:
Proposed project elevations and plans



SWC OF MASON AVENUE & LASSEN ST.
CHATSWORTH, CALIFORNIA



VICINITY MAP

NOT TO SCALE

NORTH

PROJECT SUMMARY

ZONING

CLIENT	HANOVER-HRI PROPERTIES, LLC.
PROPOSED USE	MIXED-USE
EXISTING ZONING	MR1-1, (Q) MR1-1VL, P-1,C2-1L
APN	T.B.D.
ADJACENT ZONING	NORTH : A-2 SOUTH: MR1-1 EAST : C2-1L/P1-L WEST : (Q) MR1-1VL

SITE AREA

TOTAL SITE: (± 8.07 AC) ± 351,430 S.F.

BUILDING DATA

BUILDING AREA

EXISTING BUILDING 1 (FITNESS)	± 20,125 S.F.
BUILDING 2 (RETAIL)	± 7,975 S.F.
EXISTING = ±6,250 S.F.	
PROPOSED= ±1,725 S.F.	
EXISTING BUILDING 3 (RETAIL)	± 11,200 S.F.
PROPOSED BUILDING 4 (HOTEL)	T.B.D
PROPOSED BUILDING 5 (FOOD/RETAIL)	± 10,350 S.F.
PROPOSED BUILDING 6 (FOOD W/DT)	±3,200 S.F.
PROPOSED BUILDING 7 (FOOD W/DT)	± 2,000 S.F.
PROPOSED BUILDING 8 (FOOD W/DT)	±3,200 S.F.
TOTAL BUILDING AREA:	± 58,050 S.F.+HOTEL AREA

PARKING DATA:

PARKING REQUIREMENT:

BUILDING 1 (FITNESS)	(7/1000 SF)	141 STALLS
BUILDING 2 (RETAIL)	(4/1000 SF)	32 STALLS
BUILDING 3 (RETAIL)	(4/1000 SF)	45 STALLS
BUILDING 4 (HOTEL)		70 STALLS
1- 30 ROOMS x 1 = 30 STALLS		
30-60 ROOMS x 0.5 = 15 STALLS		
60-104 ROOMS x .33 = 15 STALLS		
* ASSUME 70 STALLS TOTAL		
BUILDING 5 (RETAIL)= 4,350 S.F.	(4/1000 SF)	17 STALLS
(FOOD)=6,000 S.F.	(10/1000 SF)	60 STALLS
BUILDING 6 (FOOD W/DT)	(10/1000 SF)	20 STALLS
BUILDING 7 (FOOD W/DT)	(10/1000 SF)	32 STALLS
BUILDING 8 (FOOD W/DT)	(10/1000 SF)	32 STALLS
TOTAL PARKING REQUIRED:		447 STALLS
ENTERPRISE ZONE REQUIREMENT:	(2/1000 SF)	186 STALLS
TOTAL PARKING PROVIDED:		420 STALLS
ADA : 17 STALLS		
STANDARD: 345 STALLS		
COMPACT: 58 STALLS (13.81%)		
(MAX. ALLOWABLE =40%)		

PROPOSED SITE PLAN

SCALE: 1" = 30'-0"

NORTH

GRAPHIC SCALE

30 0 15 30 60 90

(IN FEET)
1 inch = 30 ft.

PRELIMINARY SITE PLAN SUBJECT TO CHANGE.
PROPERTY LINES ARE BASED ON PARCEL MAP

SWC OF MASON AVENUE & LASSEN ST.

CHATSWORTH, CALIFORNIA

HANOVER-HRI PROPERTIES, LLC.

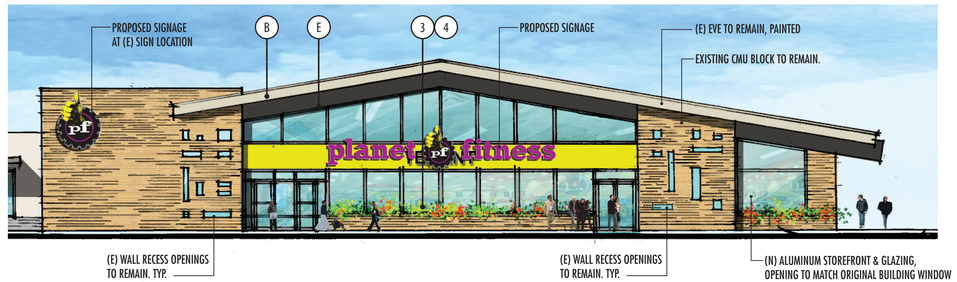
20 N. Raymond Avenue, Suite 300, Pasadena, CA 91103
Direct Line 626 243 5288 | Main 626 744 7700 | Fax 626 844 7799

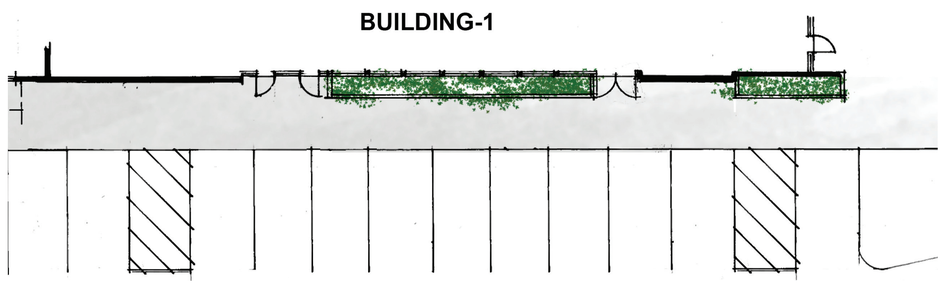
McKently Malak ARCHITECTS
35 Hugus Alley, Suite 200
Pasadena, California 91103-3648
TEL 626.583.8348 FAX 626.583.8387

OVERALL SITE PLAN

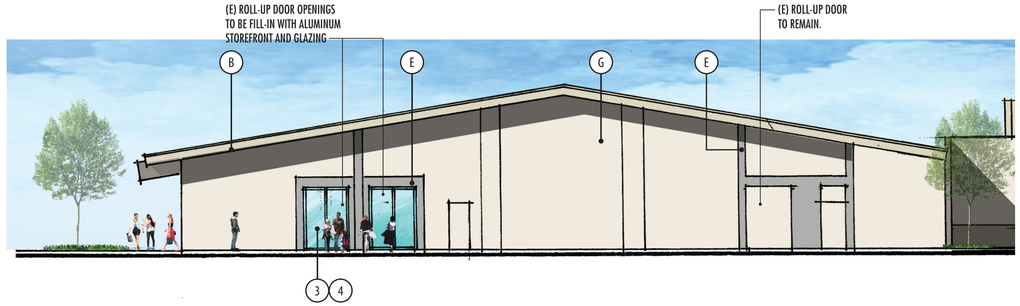
07.27.2016 15181MMA

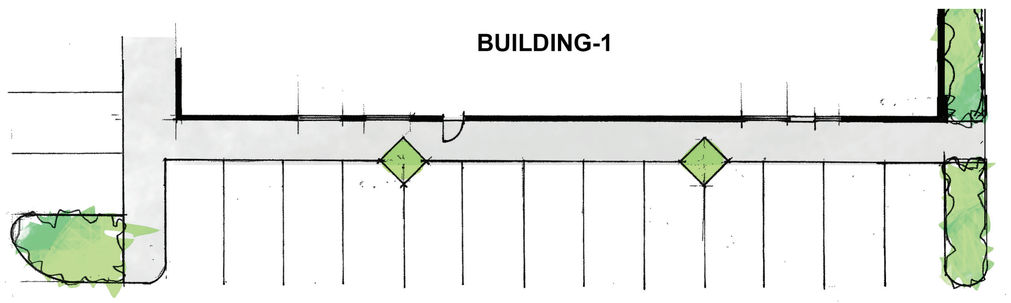
SP-10



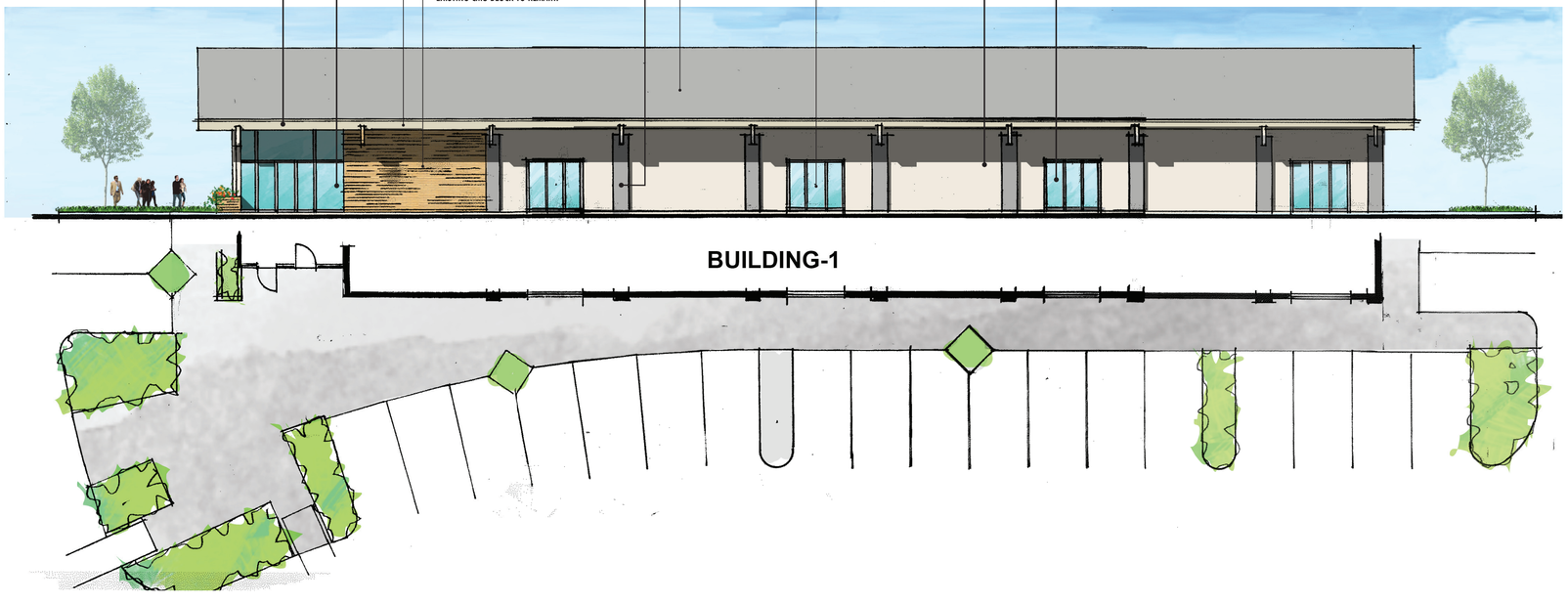


1 EAST ELEVATION
SCALE: 3/32" = 1'-0"





3 WEST ELEVATION
SCALE: 3/32" = 1'-0"



2 NORTH ELEVATION
SCALE: 3/32" = 1'-0"

B SW7542 NATURELE
BY: SHERWIN WILLIAMS

E SW7018 DOVETAIL
BY: SHERWIN WILLIAMS

G SW7569 STUCCO
BY: SHERWIN WILLIAMS



3 STOREFRONT
FINISH: CLEAR ALUMINUM
BY: ARCADIA ALUMINUM



4 STOREFRONT
FINISH: CLEAR ALUMINUM
BY: ARCADIA ALUMINUM

(E) BUILDING - 1

HRI DEVELOPMENT
20 N. Raymond Avenue, Suite 300, Pasadena, CA 91103
T: 626.744.7700 F: 626.844.7799

SWC OF MASON AVENUE & LASSEN STREET
CHATSWORTH, CALIFORNIA

McKently Malak ARCHITECTS
35 Hugus Alley Suite 200
Pasadena, California 91103
T:626.583.8348 F:626.583.8387

ELEVATIONS
10.07.2016 15181MMA

A201

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395
California Historical Resources Information System
Los Angeles, Orange, Ventura and San Bernardino Counties
sccic@fullerton.edu

9/13/2016 SCCIC File #: 16803.2886

Rachel Zucato
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Re: Records Search Results for the HRI Lassen Mason Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Canoga Park and Oat Mountain, CA USGS 7.5' quadrangles. The following summary reflects the results of the records search for the project area and a 1/2-mile radius. The search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), the California State Historic Properties Directory (HPD), and the City of Los Angeles Historic-Cultural Monuments (LAHCM) listings were reviewed for the above referenced project site. Due to the sensitive nature of cultural resources, archaeological site locations are not released.

RECORDS SEARCH RESULTS SUMMARY

Archaeological Resources	Within project area: 0 Within project radius: 0
Built-Environment Resources	Within project area: 0 Within project radius: 0
Reports and Studies	Within project area: 1 Within project radius: 4
OHP Historic Properties Directory (HPD)	Within project area: 1 possible Within project radius: 1 possible
California Points of Historical Interest (SPHI)	Within project area: 0 Within project radius: 0
California Historical Landmarks (SHL)	Within project area: 0 Within project radius: 0
California Register of Historical Resources (CAL REG)	Within project area: 0 Within project radius: 0

National Register of Historic Places (NRHP)	Within project area: 0 Within project radius: 0
City of Los Angeles Historic-Cultural Monuments (LAHCM)	Within project area: 0 Within project radius: 0

HISTORIC MAP REVIEW - map name, date, scale: Calabasas (1903) and Santa Susana (1903, 1941), 1:62,500 indicated that in 1903 there were several unimproved roads present and a couple of paved roads. There were also two buildings present. The nearest place name is Chatsworth. In 1941, there was some development with paved roads and buildings north of the project area. The area is also covered in orchards. The place name of Chatsworth is still present.

RECOMMENDATIONS

No further archaeological work is recommended at this time; however, a halt-work condition should be in place for all ground disturbing activities. In the event that any cultural resources are found, all work within the vicinity of the find should stop until a qualified archaeologist can be retained to assess the find and make recommendations. It is also recommended that any buildings, structures or objects (45 years and older and within the area of effect) be identified, recorded, and evaluated for significance as may be required by the lead agency. Finally, the Native American Heritage Commission should be consulted to identify if any additional traditional cultural properties or other sacred sites are known to be in the area.

For your convenience, you may find a professional consultant* at www.chrisinfo.org. Any resulting reports by the qualified consultant should be submitted to the South Central Coastal Information Center as soon as possible.

*The SCCIC does not endorse any particular consultant and makes no claims about the qualifications of any person listed. Each consultant on this list self-reports that they meet current professional standards.

If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz
Assistant Coordinator

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

7 September 2016

CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Attn: Rachel Zacuto, Assistant Environmental Planner

re: Paleontological resources for the proposed HRI Lassen Mason Project, in the City of Los Angeles, Los Angeles County, project area

Dear Rachel:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed HRI Lassen Mason Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Canoga Park USGS topographic quadrangle map that you sent to me via e-mail on 19 August 2016. We do not have any vertebrate fossil localities that lie directly within the proposed project boundaries, but we do have localities nearby from the same sedimentary deposits that occur at depth in the proposed project area.

In the entire proposed project area the surface deposits consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the Santa Susana Mountains to the north. These younger Quaternary deposits, found throughout the San Fernando Valley, typically do not contain significant vertebrate fossils in the uppermost layers, but older Quaternary deposits found at depth may well contain significant fossil vertebrate remains.

Our closest vertebrate fossil locality from older Quaternary deposits is LACM 1406, situated in Santa Susana Pass northwest of the proposed project area, that produced a fossil specimen of mastodon, *Mammut*, from a stream bed. Our next closest locality from older Quaternary deposits is LACM 1817, west-southwest of the proposed project area near the

intersection of Farralone Avenue and Plummer Street, that produced a specimen of fossil horse, *Equus*, at a depth of only three feet below the surface. To the southeast of the proposed project area, east of the Sepulveda Dam Recreation Area and north of the Ventura Freeway (Highway 101), we have several vertebrate fossil localities from the older Quaternary deposits including LACM 3822, near Kester Avenue and Sepulveda Boulevard north of Oxnard Street, that produced fossil specimens of extinct peccary, *Platygonus*, camel, *Camelops*, and bison, *Bison*, at depths between 75 and 100 feet below the surface; locality LACM 6208, further south along Kester Avenue near Burbank Boulevard, that produced fossil specimens of extinct bison, *Bison*, at a depth of 20 feet below the surface; and further south still locality LACM 3263, near the intersection of Kester Avenue and Otsego Street, that produced fossil specimens of extinct horse, *Equus*, at a depth of 14 feet below the surface. To the south-southwest of the proposed project area, off Mulholland Highway south of Woodland Hills, our vertebrate fossil locality LACM 1213 produced fossil specimens of horse, *Equus*, and ground sloth, *Paramylodon*. A little farther to the west-southwest of the proposed project area, off Long Valley Road in Hidden Hills, our locality LACM 5878 produced a skeleton of a fossil mastodon, *Mammut*.

Shallow excavations in the younger Quaternary Alluvium exposed throughout the proposed project area are unlikely to produce significant fossil vertebrate remains. Deeper excavations in the proposed project area that extend down into older Quaternary deposits, however, may well encounter significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

City of Los Angeles
Department of City Planning
Los Angeles, CA 90012

March 24,2017

Re: AB52 Consultation request for 9825 North Mason Ave Chatsworth-Porter Ranch Community Plan

Dear JoJo Pewsawang,

Please find this letter as a written request for consultation regarding the above mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning descending from, a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission, ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the Native American Heritage Commission (NAHC) will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our potential tribal cultural resources on your project site, at the consultation, we will be providing information pertaining to the significance of tribal cultural resources and the significance of the project's impacts to these resources. We will provide a variety of resources including, but not limited to; ethnography notes, maps, and oral history. We will also be prepared to discuss mitigation measures we feel are appropriate to protect our tribal cultural resources from substantial adverse change to their significance.

Consultation appointments are available during standard business hours on Wednesdays and Thursdays at our offices at 901 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

With Respect,

Andrew Salas, Chairman

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Christina Swindall Martinez, secretary
Albert Perez, treasurer I | Martha Gonzalez Lemos, treasurer II | Richard Gradias, Chairman of the Council of Elders
PO Box 393, Covina, CA 91723 | www.gabrielenoindians.org | gabrielenoindians@yahoo.com

D. GEOTECHNICAL REPORT

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RETAIL CENTER
9825 MASON AVENUE
CHATSWORTH, CALIFORNIA

PROJECT NO. 112-16090
OCTOBER 5, 2016

PREPARED FOR:

HRI DEVELOPMENT
20 NORTH RAYMOND AVENUE, SUITE 300
PASADENA, CALIFORNIA 91103

ATTENTION: MR. JIM BRUNETT

PREPARED BY:

KRAZAN & ASSOCIATES, INC.
1100 OLYMPIC DRIVE, SUITE 103
CORONA, CA 92881
(951) 273-1011

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RETAIL CENTER
9825 MASON AVENUE
CHATSWORTH, CALIFORNIA

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DRAFT

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APPENDIX C GENERAL PAVEMENT SPECIFICATIONS

DRAFT

October 5, 2016 KA Project No. 112-16090

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED RETAIL CENTER
9825 MASON AVENUE
CHATSWORTH, CALIFORNIA

INTRODUCTION

This report presents the results of our Geotechnical Engineering Investigation for the proposed Retail Center Development to be located at the physical address of 9825 Mason Avenue, in the city of Chatsworth, California. Discussions regarding site conditions are presented herein, together with conclusions and recommendations pertaining to site preparation, grading, utility trench backfill, drainage and landscaping, foundations, concrete floor slabs and exterior concrete flatwork, retaining walls, soil corrosivity, expansion potential and pavement design.

A Vicinity Map showing the location of the site is presented on Figure 1. A Site Plan illustrating the approximate boring and bulk sample locations is presented on Figure 2. Descriptions of the field and laboratory investigations, boring log legend and boring logs are presented in Appendix A. Appendix A also contains a description of the laboratory testing phase of this study, along with the laboratory test results. Appendices B and C contain guide specifications for earthwork and flexible pavements, respectively. If conflicts in the text of the report occur with the general specifications in the appendices, the recommendations in the text of the report have precedence.

PURPOSE AND SCOPE OF SERVICES

This geotechnical investigation was conducted to evaluate subsurface soil and groundwater conditions at the project site. Engineering analyses of the field and laboratory data were performed for the purpose of developing and providing geotechnical recommendations for use in the design and construction of the earthwork, foundation, and pavement aspects of the project.

Our scope of services was outlined in our proposal dated August2, 2016 (KA Proposal No. G16087CAC) and included the following:

- A site reconnaissance by a member of our engineering staff to evaluate the surface conditions at the project site.
- Review of selected published geologic maps, reports and literature pertinent to the site and surrounding area.

- A field investigation consisting of drilling a total of twelve (12) borings to depths ranging from approximately 10 to 50 feet below the existing ground surface for evaluation of the subsurface conditions at the project site.

- Performance of laboratory tests on representative soil samples obtained from the borings to evaluate the physical and index properties of the subsurface soils.

- Evaluation of the data obtained from the investigation and engineering analyses of the data with respect to the geotechnical aspects of structural design, site grading, and paving.

- Preparation of this report summarizing the findings, results, conclusions, and recommendations of our investigation.

Environmental services, such as chemical analyses of soil and groundwater for possible environmental contaminates, is beyond our scope of services.

PROPOSED CONSTRUCTION

Based on our discussions with the project representatives, we understand that the proposed development will include construction of a retail center at the subject site, located at the physical address of 9825 Mason Avenue, in the city of Chatsworth, California. The proposed development is anticipated to consist of construction of pads and utility connections for five (5) new retail buildings. In addition, it is anticipated that the proposed improvements will include remodel of three (3) existing buildings to remain as part of the proposed retail center. The proposed development will include associated site improvements such as underground utilities, pavements, and landscaped areas. It is anticipated that the proposed structures will be founded on shallow foundation systems and incorporate concrete slab-on-grade floors. Foundation loads are anticipated to be relatively light.

Paving consisting of asphalt concrete (flexible) will cover the majority of the remainder of the site following construction of the above-mentioned building pads. Underground utility construction will be required to provide water, gas, and electric services, and storm and sanitary sewer lines. Mass grading of the majority of the site is expected to entail minor cuts and fills (nominally 1 foot) from existing grades to establish the building pad and to provide for surface drainage of the site.

In the event these structural or grading details are inconsistent with the final design criteria, we should be notified so that we can evaluate the potential impacts of the changes on the recommendations presented in this report and provide an updated report as necessary.

SITE LOCATION AND SITE DESCRIPTION

The subject site is located on the Southwest Corner of Mason Avenue and Lassen Street in the city of Chatsworth, California. The subject site is bound to the north by Lassen Street, to the west by a mobile home community, to the south by Superior Street, and to the east by Mason Avenue. The site currently occupied by light industrial and retail development. The northwest portion of the site is being used for equipment and vehicle storage. The subject site occupies an area of approximately 6.0 acres. The topography at the subject site is relatively flat and level, with no major topographic relief. Groundcover

at the site consists of asphalt and concrete pavements, and exposed soil in the northwest portion of the subject site.

SITE INVESTIGATION

GEOLOGIC SETTING

The subject site is located within the San Gabriel Mountain Ranges which are geologically young mountain ranges and possess active and potentially active fault zones. Numerous moderate to large earthquakes have affected the area of the subject site within historic time. Based on the proximity of several dominant active faults and seismogenic structures, as well as the historic seismic record, the area of the subject site is considered subject to relatively high seismicity.

The nearest significant active fault is the Santa Susana Fault Zone, which is approximately 4.0 miles from the site. The Sierra Madre and Northridge Fault Zones are located approximately 7.0 and 7.6 miles from the site, respectively. The area in consideration shows no mapped faults on-site according to maps prepared by the California Geologic Survey and published by the International Conference of Building Officials (ICBO). No evidence of surface faulting was observed on the property during our reconnaissance.

FIELD AND LABORATORY INVESTIGATIONS

Subsurface soil conditions were explored by drilling and sampling a total of twelve (12) borings using a truck-mounted hollow-stem auger drill rig. Borings were drilled to depths ranging from approximately 10 to 50 feet below existing site grade. Driven tube samples were obtained at typically five (5) foot depth intervals in the borings using a 140-pound hammer falling 30-inches to drive the sampler rods. Relatively undisturbed samples were obtained using Modified California ring (drive tube) samplers to a depth of approximately ten (10) feet. Below a depth of approximately ten (10) feet, Standard Penetration Tests were generally performed to obtain driven tube samples and information on the consistency of the deeper soils.

In addition, bulk subgrade soil samples were obtained for laboratory testing. The approximate boring and bulk sample locations are shown on the Site Plan, Figure 2. The approximate boring and sample locations were estimated in the field based on pacing and measuring from the limits of existing site features. During drilling operations, sampler penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsurface soils. Soil samples were retained for laboratory testing. The soils encountered were carefully examined and visually classified by our field professional in accordance with the Unified Soil Classification System. A more detailed description of the field investigation is presented in Appendix A.

Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory-testing program was formulated with emphasis on the evaluation of natural in-situ moisture and density, gradation, shear strength, expansion potential, consolidation potential, R-Value, maximum dry density, resistivity, pH value, sulfate and chloride contents of the materials encountered. Details of the laboratory testing program are discussed in Appendix A. The

results of the laboratory tests are presented on the boring logs or on the test reports, which are also included in Appendix A. This information, along with the field observations, was used to prepare the final boring logs in Appendix A.

SOIL PROFILE AND SUBSURFACE CONDITIONS

Based on our findings, the subsurface conditions encountered appear typical of those found in the geologic region of the site. Groundcover at the site consists of 4 to 6 inches of asphalt paving throughout the majority of the subject site. Groundcover in the northwest portion of the site consisted of exposed soil. The near surface soils encountered at the boring locations generally consisted of medium dense to dense silty sand. No discernable fill soil was encountered at the boring locations.

Medium dense to dense silty sand and sandy silt was encountered to depths of up to 19 feet below existing site grades. Medium dense to dense gravely sand was encountered at the boring locations at depths ranging from approximately 9 to 20 feet below existing site grades. Medium dense to dense silty sand with varying fine gravel content was encountered to the maximum depth explored, 50 feet below site grades.

Penetration resistance, measured by the number of blows required to drive a Modified California Sampler or a Standard Penetration Test (SPT) sampler, ranged from 6 to 48 blows per foot. Dry densities measured on relatively undisturbed samples from within 10 feet of the existing ground surface ranged from approximately 90 to 110 pcf. Relatively undisturbed soil samples consolidated approximately 0.7 to 0.9 percent under a 2-ksf load when saturated. Relatively undisturbed soil samples had angles of internal friction of 28 and 29 degrees. A representative near surface soil sample was tested and found to have an Expansion Index of 0.

The above is a general description of soil conditions encountered at the site in the borings drilled for this investigation. For a more detailed description of the soil conditions encountered, please refer to the boring logs in Appendix A.

GROUNDWATER

Test boring locations were checked for the presence of groundwater during drilling and immediately following the drilling operations. Free groundwater was not encountered in any of the borings drilled as part of this investigations. Based on a review of the Seismic Hazard Zone Report for the Canoga Park Quadrangle, prepared by the California Geologic Survey, historic groundwater elevations are reported at depths greater than 50 feet below grade in the vicinity of the subject site.

It should be recognized that water table elevation might fluctuate with time. The depth to groundwater can be expected to fluctuate both seasonally and from year to year. Fluctuations in the groundwater levels may occur due to variations in precipitation, irrigation practices at the site and in the surrounding areas, climatic conditions, flow in adjacent or nearby canals, pumping from wells and possibly as the result of other factors that were not evident at the time of our investigation. Therefore, water level observations at the time of our field investigation may vary from those encountered during the construction phase of the project. The evaluation of such factors is beyond the scope of this report.

Long-term monitoring in observation wells, sealed from the influence of surface water, is often required to more accurately define the potential range of groundwater conditions on a site.

SEISMICITY AND LIQUEFACTION POTENTIAL

Seismicity is a general term relating to the abrupt release of accumulated strain energy in the rock materials of the earth's crust in a given geographical area. The recurrence of accumulation and subsequent release of strain have resulted in faults and fault systems. Fault patterns and density reflect relative degrees of regional stress through time, but do not necessarily indicate recent seismic activity; therefore, the degree of seismic risk must be determined or estimated by the seismic record in any given region. The nearest significant active fault is the Santa Susana Fault Zone, which is approximately 4.0 miles from the site. The Sierra Madre and Northridge Fault Zones are located approximately 7.0 and 7.6 miles from the site, respectively.

Soil liquefaction is a state of soil particle suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. However, liquefaction has occurred in soils other than clean sand. Liquefaction usually occurs under vibratory conditions such as those induced by seismic events. To evaluate the liquefaction potential of the site, the following items were evaluated:

1) Soil type
2) Groundwater depth
3) Relative density
4) Initial confining pressure
5) Intensity and duration of ground shaking

In accordance with the State of California, Seismic Hazard Zones Map, Canoga Park Quadrangle, released: March 25, 1995, the site is not located within an area defined as a potential liquefaction zone. The subsurface soil conditions encountered at the site generally consist of medium dense to dense sand silty sand and sandy silt. Groundwater in the vicinity of the site was not encountered at depths within 50 feet below site grades. Available groundwater depth mapping, as well as our experience in the area, indicates that historically groundwater has been located at depths in excess of 50 feet below grade in the general vicinity of the site.

The site is not located in an area designated by the State of California as a liquefaction hazard zone. Groundwater was not encountered at the subject site and is not anticipated to be located within a depth of 50 feet below site grades. Based on the conditions encountered and the results of our laboratory testing, the subsurface conditions encountered at the subject site are not considered to be subject to liquefaction.

FAULT RUPTURE HAZARD ZONES

The Alquist-Priolo Geologic Hazards Zones Act went into effect in March, 1973. Since that time, the Act has been amended 11 times (Hart, 2007). The purpose of the Act, as provided in California Geologic Survey (CGS) Special Publication 42 (SP 42), is "to prohibit the location of most structures for human occupancy across the traces of active faults and to mitigate thereby the hazard of fault-rupture." The Act

was renamed the Alquist-Priolo Earthquake Fault Zoning Act in 1994, and at that time, the originally designated "Special Studies Zones" was renamed the "Earthquake Fault Zones."

The nearest significant active fault is the Santa Susana Fault Zone, which is approximately 4.0 miles from the site. The Sierra Madre and Northridge Fault Zones are located approximately 7.0 and 7.6 miles from the site, respectively. The area in consideration shows no mapped faults on-site according to maps prepared by the California Geologic Survey and published by the International Conference of Building Officials (ICBO). No evidence of surface faulting was observed on the property during our reconnaissance.

SEISMIC HAZARDS ZONES

In 1990, the California State Legislature passed the Seismic Hazard Mapping Act to protect public safety from the effects of strong shaking, liquefaction, landslides, or other ground failure, and other hazards caused by earthquakes. The Act requires that the State Geologist delineate various seismic hazards zones on Seismic Hazard Zones Maps. Specifically, the maps identify areas where soil liquefaction and earthquake-induced landslides are most likely to occur. A site-specific geotechnical evaluation is required prior to permitting most urban developments within the mapped zones. The Act also requires sellers of real property within the zones to disclose this fact to potential buyers. The subject site is locate on the Seismic Hazard Zone Map, Canoga Park Quadrangle, dated February 1, 1998. The subject site is not located in an area designated by the State of California as a Liquefaction Hazard Zone.

OTHER HAZARDS

Rockfall, Landslide, Slope Instability, and Debris Flow: The subject site is relatively flat and level. It is our understanding that there are no significant slopes proposed as part of the proposed development. Provided the recommendations presented in this report are implemented into the design and construction of the anticipated development, rockfalls, landslides, slope instability, and debris flows are not anticipated to pose a hazard to the subject site.

Seiches: Seiches are large waves generated within enclosed bodies of water. The site is not located in close proximity to any lakes or reservoirs. As such, seiches are not anticipated to pose a hazard to the subject site.

Tsunamis: Tsunamis are tidal waves generated by fault displacement or major ground movement. The site is several miles from the ocean. As such, tsunamis are not anticipated to pose a hazard to the subject site.

Hydroconsolidation: The near surface soils encountered at the subject site were found to be medium dense to dense. The underlying native soils were found to be medium dense to very dense. Provided the recommendations in this report are incorporated into the design and construction of the proposed development, hydroconsolidation is not anticipated to be a significant concern for the subject site.

EXPANSIVE SOIL

The near-surface silty sand soils encountered at the site have been identified through laboratory testing as having being non-expansive. Expansive soils have the potential to undergo volume change, or shrinkage and swelling, with changes in soil moisture. As expansive soils dry, the soil shrinks; when moisture is reintroduced into the soil, the soil swells.

SOIL CORROSIVITY

Corrosion tests were performed to evaluate the soil corrosivity to the buried structures. The tests consisted of sulfate content and chloride content, and the results of the tests are included as follows:

Parameter	Results	Test Method
Resistivity	3,500 ohm-cm	CA 643
Sulfate	160 ppm	CA 417
Chloride	238 ppm	CA 422
pH	7.4	EPA 9045C

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our field and laboratory investigations, along with previous geotechnical experience in the project area, the following is a summary of our evaluations, conclusions, and recommendations.

ADMINISTRATIVE SUMMARY

Based on the data collected during this investigation, and from a geologic and geotechnical engineering standpoint, it is our opinion that the proposed improvements may be made as anticipated provided that the recommendations presented in this report are considered in the design and construction of the project.

General site clearing should include removal of vegetation and existing utilities, structures; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for reuse as Engineered Fill. However, stripped topsoil may be either stockpiled and reused in planned landscape areas or non-structural areas, or hauled offsite to an approved disposal location.

To reduce post-construction soil movement and provide uniform support for the buildings to be constructed at the subject site, overexcavation and recompaction within the proposed building, slab-on-grade, and foundation footprint areas should be performed to a minimum depth of three (3) feet below existing grades or two (2) foot below bottom of the proposed footings, whichever is deeper. The actual depth of the overexcavation and recompaction should be determined by our field representative during

construction. The overexcavation and recompaction should also extend laterally a minimum of five (5) feet beyond edges of the proposed footings, slab, or building footprint. Any undocumented fill encountered during grading should be removed and replaced with Engineered Fill.

Within the proposed exterior flatwork and pavement areas, the overexcavation and recompaction should be performed to a depth of at least one (1) foot below existing grade or one (1) foot below finished subgrade, whichever is deeper. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

Prior to placement of any fill soils, the upper eight (8) inches of native subgrade soils exposed in the over-excavation bottom should be scarified, moisture-conditioned to slightly above optimum moisture-content, and recompacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method. All fill material should be compacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method.

The footings should have a minimum depth of 15 inches below either pad subgrade (soil grade) or adjacent exterior grade, whichever is lower in elevation. Minimum footing widths should be 12 inches for continuous footings and 18 inches for isolated footings. Foundations with the above-recommended minimum dimensions should be designed for a maximum allowable bearing load under dead-plus-live load of 2,300 psf.

For retaining walls with level backfill surface behind the walls, we recommend that retaining walls capable of deflecting a minimum of 0.1 percent of its height at the top be designed using an equivalent fluid active pressure of 43 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 63 pounds per square foot per foot of depth. This is anticipated to apply to the loading dock walls. A passive lateral pressure of 250 pounds per square foot may be used to calculate sliding resistance. If walls are to be constructed above descending slopes, our office should be contacted to discuss further reduction in allowable passive pressures for resistance of lateral forces, and for overall retaining wall foundation design.

Groundwater Influence on Structures/Construction

Based on our findings and historical records, it is not anticipated that groundwater will rise within the zone of structural influence or affect the construction of foundations and pavements for the project. However, if earthwork is performed during or soon after periods of precipitation, the subgrade soils may become saturated, "pump," or not respond to densification techniques. Typical remedial measures include: discing and aerating the soil during dry weather; mixing the soil with dryer materials; removing and replacing the soil with an approved fill material; or mixing the soil with an approved lime or cement product.

Groundwater was not encountered in any of the borings drilled as part of this investigation. It is not anticipated that groundwater will impact the proposed construction. In the event saturated soil is encountered, our firm should be consulted prior to implementing remedial measures to observe such overwet and unstable subgrade conditions and provide appropriate recommendations.

SEISMIC CONSIDERATIONS

Ground Shaking

Although ground rupture is not considered to be a major concern at the subject site, the site will likely be subject to at least one moderate to severe earthquake and associated seismic shaking during its lifetime, as well as periodic slight to moderate earthquakes. Some degree of structural damage due to stronger seismic shaking should be expected at the site, but the risk can be reduced through adherence to seismic design codes.

Soil Liquefaction

Soil liquefaction is a state of soil particle suspension caused by a complete loss of strength when the effective stress drops to zero. Liquefaction normally occurs under saturated conditions in soils such as sand in which the strength is purely frictional. However, liquefaction has occurred in soils other than clean sand. Liquefaction usually occurs under vibratory conditions such as those induced by seismic events. To evaluate the liquefaction potential of the site, the following items were evaluated:

The site is not located in an area designated by the State of California as a liquefaction hazard zone. Groundwater was not encountered at the subject site and is not anticipated to be located within a depth of 50 feet below site grades. Based on the conditions encountered and the results of our laboratory testing, the subsurface conditions encountered at the subject site are not considered to be subject to liquefaction.

Seismic Induced Settlement

One of the most common phenomena during seismic shaking accompanying any earthquake is the induced settlement of loose unconsolidated soils. Based on site subsurface conditions and the moderate to high seismicity of the region, any loose or soft materials at the site could be vulnerable to this potential hazard.

SITE COEFFICIENT

The site class, per Table 1613.5.2, 2013 CBC, is based upon the site soil conditions. It is our opinion that a Site Class D is appropriate for building design at this site. For seismic design of the structures, in accordance with the seismic provisions of the 2013 CBC, we recommend the following parameters:

2013 CALIFORNIA BUILDING CODE		
Seismic Item	**Value**	**CBC Reference**
Site Class	D	Table 1613.5.2
Fa	1.00	Table 1613.5.3 (1)
Ss	2.193	Figure 1613.5 (3)
SMS	2.193	Section 1613.5.3
SDS	1.462	Section 1613.5.4
Fv	1.50	Table 1613.5.3 (2)
S1	0.699	Figure 1613.5 (4)
SM1	1.048	Section 1613.5.3
SD1	0.699	Section 1613.5.4
Peak Horizontal Acceleration	0.811g	Figure 22.7

WEAK AND DISTURBED SOILS

Of primary importance in the development of this site is the removal/recompaction of potentially compressible soils from the areas of the proposed structures. This is discussed in detail in the Earthwork section of this report.

COLLAPSIBLE SOILS

The near surface alluvial/colluvial soils possess varying apparent densities and moisture-conditions and are moisture-sensitive and are moderately compressible under saturated conditions. Structures within the project vicinity have experienced excessive post-construction settlement, when similar foundation soils become nearly saturated. As recommended in the site preparation section of this report, the collapsible or weak soils should be removed, moisture-conditioned to slightly above optimum moisture-content, and recompacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method.

EARTHWORK

Site Preparation – Clearing and Stripping

General site clearing should include removal of vegetation and existing utilities, pavements, structures; trees and associated root systems; rubble; rubbish; and any loose and/or saturated materials. Site stripping should extend to a minimum depth of 2 inches, or until all organics in excess of 3 percent by volume are removed. Deeper stripping may be required in localized areas. These materials will not be suitable for reuse as Engineered Fill. However, stripped topsoil may be either stockpiled and reused in planned landscape areas or non-structural areas, or hauled offsite to an approved disposal location.

Any excavations that result from clearing operations should be backfilled with Engineered Fill. Krazan & Associates' field staff should be present during site clearing operations to enable us to locate areas where depressions or disturbed soils are present and to allow our staff to observe and test the backfill as it is placed. If site clearing and backfilling operations occur without appropriate observation and testing by a qualified geotechnical consultant, there may be the need to over-excavate the building area to identify uncontrolled fills prior to mass grading of the building pad.

As with site clearing operations, any buried structures encountered during construction should be properly removed and the resulting excavations backfilled with Engineered Fill.

Overexcavation and Recompaction – Building and Foundation Areas

To reduce post-construction soil movement and provide uniform support for the buildings and foundations to be constructed at the subject site, overexcavation and recompaction within the proposed building, slab-on-grade, and foundation footprint areas should be performed to a minimum depth of three (3) feet below existing grades or two (2) feet below the bottom of the proposed footings, whichever is deeper. The actual depth of the overexcavation and recompaction should be determined by our field representative during construction. The overexcavation and recompaction should also extend laterally a minimum of five (5) feet beyond edges of the proposed footings, slab, or building footprints. Any undocumented fill encountered during grading should be removed and replaced with Engineered Fill.

Overexcavation and Recompaction – Parking and Drive Areas

Within the proposed exterior flatwork and pavement areas, the overexcavation and recompaction should be performed to a depth of at least one (1) foot below existing grade or one (1) foot below finished subgrade, whichever is deeper. This compaction effort should stabilize the surface soils and locate any unsuitable or pliant areas not found during our field investigation.

Fill Placement

Prior to placement of any fill soils, the upper eight (8) inches of the native subgrade soils exposed in the over-excavation bottom should be scarified, moisture-conditioned to slightly above optimum moisture-content, and recompacted to a minimum of 90 percent of the maximum dry density based on ASTM

D1557 Test Method. Fill material should be compacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method.

The over-excavated native sand soils are generally suitable for use as Engineered Fill provided that they are free of organic material, debris and cobbles over 4 inches in diameter. Fill material should be moisture-conditioned to slightly above optimum moisture-content, placed in maximum 6 inch thick, loose lifts and compacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method.

The upper soils, during wet winter months, may become very moist due to the absorptive characteristics of the soil. Earthwork operations performed during winter months may encounter very moist unstable soils, which may require removal to grade a stable building foundation. Project site winterization consisting of placement of aggregate base and protecting exposed soils during the construction phase should be performed.

ENGINEERED FILL

The organic-free, on-site, native soils are predominately sand, often with traces of clay and gravel. These sand soils will be suitable for reuse as Non-Expansive Engineered Fill, provided they are cleansed of excessive organics, debris and rocks larger than 4 inches in diameter.

The preferred materials specified for Engineered Fill are suitable for most applications with the exception of exposure to erosion. Project site winterization and protection of exposed soils during the construction phase should be the sole responsibility of the contractor, since he has complete control of the project site at that time.

Imported Fill material should be predominately non-expansive granular material. This material should be approved by the Geotechnical Engineer prior to use and should typically possess the following characteristics:

NON-EXPANSIVE FILL PROPERTIES	
Percent Passing No. 200 Sieve	10 to 50
Plasticity Index (PI)	12 maximum
Liquid Limit	35 maximum
UBC Standard 29-2 Expansion Index	20 maximum

Imported Fill should be free from rocks and clods greater than 4 inches in diameter. All Imported Fill material should be submitted to the Soils Engineer for approval at least 72 hours prior to delivery at the site, in order to allow time for appropriate laboratory testing. Fill soils should be placed in lifts approximately 6 inches thick, moisture-conditioned to slightly above optimum moisture-content, and compacted to achieve at least 90 percent of the maximum dry density as determined by ASTM D1557-00 Test Method. Additional lifts should not be placed if the previous lift did not meet the required dry density or if soil conditions are not stable.

TEMPORARY EXCAVATION STABILITY

All excavations should comply with the current requirements of Occupational Safety and Health Administration (OSHA). All cuts greater than 3 feet in depth should be sloped or shored. Temporary excavations should be sloped at 1:1 (horizontal to vertical) or flatter, up to a maximum depth of seven (7) feet, and at 2:1 (horizontal to vertical) for excavations greater than seven (7) feet. Heavy construction equipment, building materials, excavated soil, and vehicular traffic should not be allowed within five (5) feet of the top (edge) of the excavation. Where sloped excavations are not feasible due to site constraints, the excavations may require shoring. The design of the shoring system is normally the responsibility of the contractor or shoring designer, and therefore, is outside the scope of this report. The design of the temporary shoring should take into account lateral pressures exerted by the adjacent soil, and, where anticipated, surcharge loads due to adjacent buildings and any construction equipment or traffic expected to operate alongside the excavation.

The excavation/shoring recommendations provided herein are based on soil characteristics derived from our test borings within the area. The soil conditions encountered generally consist of granular material. As such, the on-site soil is subject to caving, sloughing, and erosion. Variations in soil conditions will likely be encountered during the excavations. Krazan & Associates, Inc. should be afforded the opportunity to provide field review to evaluate the actual conditions and account for field condition variations not otherwise anticipated in the preparation of this recommendation.

UTILITY TRENCH LOCATION, CONSTRUCTION AND BACKFILL

To maintain the desired support for existing or new foundations, new utility trenches should be located such that the base of the trench excavation is located above an imaginary plane having an inclination of 1.0 horizontal to 1.0 vertical, extending downward from the bottom edge of the adjacent footing.

Utility trenches should be excavated according to accepted engineering practices following OSHA standards by a contractor experienced in such work. The responsibility for the safety of open trenches should be borne by the contractor. Traffic and vibration adjacent to trench walls should be kept to a minimum; cyclic wetting and drying of excavation side slopes should be avoided. Depending upon the location and depth of some utility trenches, groundwater flow into open excavations could be experienced, especially during or shortly following periods of precipitation. For purposes of this section of the report, backfill is defined as material placed in a trench starting one foot above the pipe; bedding and shading (also referred to as initial backfill) is all material placed in a trench below the backfill. With the exception of specific requirements of the local utility companies or building department, pipe bedding and shading should consist of clean medium-grained sand. The sand should be placed in a damp state and should be compacted by mechanical means prior to the placement of backfill soils. Above the pipe zone, underground utility trenches may be backfilled with either free-draining sand, on-site soil or imported soil. The trench backfill should be compacted to at least 90 percent relative compaction.

COMPACTED MATERIAL ACCEPTANCE

Compaction specifications are not the only criteria for acceptance of the site grading or other such activities. However, the compaction test is the most universally recognized test method for assessing the performance of the Grading Contractor. The numerical test results from the compaction test cannot

solely be used to predict the engineering performance of the compacted material. Therefore, the acceptance of compacted materials will also be dependent upon the moisture-content and the stability of that material. The Geotechnical Engineer has the option of rejecting any compacted material regardless of the degree of compaction if that material is considered to be too dry or excessively wet, unstable or if future instability is suspected. A specific example of rejection of fill material passing the required percent compaction is a fill which has been compacted with in-situ moisture-content significantly less than optimum moisture. Where expansive soils are present, heaving of the soils may occur with the introduction of water. Where the material is a lean clay or silt, this type of dry fill (brittle fill) is susceptible to future settlement if it becomes saturated or flooded.

SURFACE DRAINAGE AND LANDSCAPING

The ground surface should slope away from building and pavement areas toward appropriate drop inlets or other surface drainage devices. We recommend that adjacent paved exterior grades be sloped a minimum of 2 percent for a minimum distance of 10 feet away from structures. Ideally, asphalt concrete pavement areas should be sloped at a minimum of 2 percent, with Portland cement concrete sloped at a minimum of one percent toward drainage structures. These grades should be maintained for the life of the project. Roof drains should be designed to avoid discharging into landscape areas adjacent to the building. Downspouts should be directed to discharge directly onto paved surfaces to allow for surface drainage into the on-site infiltration system or should be dispersed in a landscape area for percolation into the subgrade. However, any drainage dispersed into the landscape areas should be a minimum of ten feet from the building pad limits.

FOUNDATION

The proposed structures may be supported on a shallow foundation system bearing on a minimum of 2 feet of Engineered Fill. Spread and continuous footings can be designed for the following maximum allowable soil bearing pressures:

Load	Allowable Loading
Dead Load Only	1,750 psf
Dead-Plus-Live Load	2,300 psf
Total Load, including wind or seismic loads	3,000 psf

The footings should have a minimum depth of 15 inches below either pad subgrade (soil grade) or adjacent exterior grade, whichever is lower in elevation. Minimum footing widths should be 12 inches for continuous footings and 18 inches for isolated footings. Foundations with the above-recommended minimum dimensions should be designed for a maximum allowable bearing load under dead-plus-live load of 2,300 psf. Foundations should be designed for the estimated static and seismic settlement discussed in this report.

STATIC SETTLEMENT

Provided the site is prepared as recommended and that the foundations are designed and constructed in accordance with our recommendations, the total settlement due to foundation loads is not expected to exceed 1 inch. The differential settlement is anticipated to be less than ½ inch in 20 feet. Most of the settlement is expected to occur during construction as the loads are applied. However, additional post-construction settlement may occur if the foundation soils are flooded or saturated.

LATERAL LOAD RESISTANCE

Resistance to lateral footing displacement can be computed using an allowable friction factor of 0.25 acting between the base of foundations and the supporting subgrade. Where a vapor barrier material is used below concrete slabs-on-grade, a coefficient of friction should be provided by the vapor barrier manufacturer. Lateral resistance for footings can alternatively be developed using an allowable equivalent fluid passive pressure of 200 pounds per cubic foot acting against the appropriate vertical footing faces. Where equivalent fluid pressure against the sides of the footings or embedded slab edge are to be used, the footing or slab edge must be cast directly against undisturbed soils or the soils surrounding the structure must be recompacted to the requirements for Engineered Fill presented above. The frictional and passive resistance of the soil may be combined without reduction in determining the total lateral resistance. A one-third increase in the value above may be used for short duration, wind, or seismic loads.

FLOOR SLABS

It is recommended that the concrete slabs be a minimum of five inches in thickness and reinforced with at least No. 3 reinforcing bars, placed at 18 inches on center in each direction within the slabs' middle third, to reduce crack separation and possible vertical offset at the cracks. Thicker floor slabs with increased concrete strength and reinforcement should be designed wherever heavily concentrated loads, heavy equipment, or machinery is anticipated.

Special attention to the immediate drainage and irrigation around the building is recommended. Positive drainage should be established away from the structure and should be maintained throughout the life of the structure. Ponding of water should not be allowed adjacent to the structure. Over-irrigation within landscaped areas adjacent to the structure should not be performed. In addition, ventilation of the structure (i.e. ventilation fans) is recommended to reduce the accumulation of interior moisture.

EXTERIOR FLATWORK

Exterior slabs should be cast free of the adjacent building foundation in order to act independently of the walls and foundation system in all areas except doorways leading into the building. This may be accomplished by using a strip of a ½-inch thick asphalt-impregnated-felt divider material between the slab edges and the adjacent structure. Where floating slabs-on-grade are not desired due to the need for vertical control such as at doorways, dowel bars may be considered. There is a potential drawback to the use of dowel bars for slabs since there is a potential that a crack may develop parallel to the edge of the slab about two to four feet back from the edge. Exterior finish grades should have a minimum slope

gradient of 1 to 1½ percent away from the buildings to preclude ponding of water adjacent to the structures.

Frequent construction or control joints should be provided in all concrete slabs where cracking is objectionable. Joint spacing should not exceed 30 times the slab thickness. Control joints, whether scored or saw-cut should be no less than one-fourth of the slab thickness. Continuous reinforcing or dowels at the construction and control joints will also aid in reducing uneven slab uplift.

It is recommended that the exterior flatwork and pedestrian walkways be a minimum of 4 inches in thickness. Exterior flatwork will be subjected to edge effects due to the fluctuation in the moisture-content of the subgrade soils along the outer edges of the slab. Deepened edge sections (also referred to as down turned curbs) and controlled irrigation of landscaped areas adjacent to the flatwork will aid in reducing the potential for the shrinkage and swelling of the underling soils. By deepening the edge section of concrete flatwork a minimum of 12 inches below the subgrade soils, there is less potential for soil moisture change below at least the perimeter of the slabs. By maintaining the soil moisture-content, the resulting soil displacement or shrink/swell cycles will also be reduced.

Exterior flatwork not associated with proposed structures should be supported on a minimum of 12 inches of Engineered Fill material. Fill material should consist of low expansive soil, moisture-conditioned to slightly above optimum moisture-content and compacted to a minimum of 90 percent of the maximum dry density based on ASTM D1557 Test Method.

Provided subgrade soil associated with exterior flatwork is prepared as recommended in this report, reinforcement in non-structural exterior flatwork is not considered warranted. Welded wire mesh or similar reinforcing may be considered to reduce potential for separation and cracking.

RETAINING WALLS

For retaining walls with level backfill surface behind the walls, we recommend that retaining walls capable of deflecting a minimum of 0.1 percent of its height at the top be designed using an equivalent fluid active pressure of 43 pounds per square foot per foot of depth. Walls that are incapable of this deflection or walls that are fully constrained against deflection may be designed for an equivalent fluid at-rest pressure of 63 pounds per square foot per foot of depth. This is anticipated to apply to the loading dock walls. A passive lateral pressure of 200 pounds per square foot may be used to calculate sliding resistance. If walls are to be constructed above descending slopes, our office should be contacted to discuss further reduction in allowable passive pressures for resistance of lateral forces, and for overall retaining wall foundation design.

The surcharge effect from loads adjacent to the walls should be included in the wall design. The surcharge load for walls capable of deflecting (cantilever walls), we recommend applying a uniform surcharge pressure equal to one-third of the applied load over the full height of the wall. Where walls are restrained the surcharge load should be based on one-half of the applied load above the wall, also distributed over the full height of the wall. For other surcharges, such as from adjacent foundations, point loads or line loads, Krazan & Associates should be consulted.

Expansive soils should not be used for backfill against walls. The zone of non-expansive backfill material should extend from the bottom of each retaining wall laterally back a distance equal to the height of the wall, to a maximum of five (5) feet.

The above-recommended active and at-rest earth pressures do not include hydrostatic pressures. To reduce the build-up of hydrostatic pressures, drainage should be provided behind the retaining walls. Wall drains should consist of a minimum 12-inch wide zone of drainage material, such as ¾-inch by ½-inch drain rock wrapped in a non-woven polypropylene geotextile filter fabric such as Mirafi 140N or equivalent. Alternatively, drainage may be provided by the placement of a commercially produced composite drainage blanket, such as Miradrain, extending continuously up from where it is wrapped around a drain pipe located along the base of the wall. The drainage material should extend from the base of the wall to finished subgrade in paved areas and to within about 12 inches below the top of the wall in landscape areas. In landscape areas the top 12 inches should be backfilled with compacted native soil. A 4-inch minimum diameter, perforated, Schedule 40 PVC drain pipe should be placed with holes facing down in the lower portion of the wall drainage material, surrounded with drain rock wrapped in filter fabric. A solid drainpipe draining to a suitable discharge point should provide the necessary drainage outlet. As an alternative, weep holes may be used to provide drainage. If weep holes are used, the weep holes should be 2 inches in diameter and spaced about 8 feet on centers. The backside of the weep holes should be covered with a corrosion-resistant mesh to prevent loss of backfill and/or drainage material.

PAVEMENT DESIGN

Based on the established standard practice of designing flexible pavements in accordance with State of California Department of Transportation (Caltrans) for projects within California, we have developed pavement sections in accordance with the procedure presented in Caltrans Standard Test Method 301. This pavement design procedure is based on the volume of traffic (Traffic Index) and the soil resistance "R" Value (R-Value) of subgrade soils. The AASHTO procedure was used to evaluate rigid pavement section requirements.

Asphalt Concrete (Flexible) Pavements

One (1) near-surface soil sample was obtained from near-surface soils at the soil borings at the project site and tested in the laboratory for R-Value, in accordance with California Test 301. Results of the tests are as follows:

R-VALUE TEST RESULTS			
Boring Number	**Sample Depth (ft)**	**Description**	**R-Value at Equilibrium**
B-5	0-3	Silty Sand	35

Based on a review of the boring logs and the R-Value data presented above, the near surface soil encountered at the subject site consists of mostly silty sand with a R-Value of 35. Therefore, an R-Value of 35 is considered to be representative for the pavement. If site grading exposes soil other than that assumed, we should perform additional tests to confirm or revise the recommended pavement sections for

actual field conditions. Various alternative pavement sections based on the Caltrans Flexible Pavement Design Method are presented below:

ASPHALT CONCRETE (FLEXIBLE) PAVEMENTS Subgrade R-value = 35 or greater			
Traffic Index	**Asphalt Concrete (inches)**	**Class 2 Aggregate Base (inches)**	**Depth of Compacted Subgrade (inches)**
5.0	2.5	5.5	12.0
6.0	3.0	7.0	12.0
7.0	4.0	8.0	12.0
8.0	4.5	10.0	12.0

We recommend that the subgrade soil be prepared as discussed in this report. The compacted subgrade should be non-yielding when proof-rolled with a loaded ten-wheel truck, such as a water truck or dump truck, prior to pavement construction. Subgrade preparation should extend a minimum of 2 feet laterally beyond the edge of pavement or back of curbs.

Pavement areas should be sloped and drainage gradients maintained to carry all surface water off the site. A cross slope of 2 percent is recommended in asphalt concrete pavement areas to provide good surface drainage and to reduce the potential for water to penetrate into the pavement structure.

Unless otherwise required by local jurisdictions, paving materials should comply with the materials specifications presented in the Caltrans Standard Specifications Section. Class 2 Aggregate Base should comply with the materials requirements for Class 2 Base found in Section 26.

Where high temperatures will be prevalent, elevated to extreme pavement temperature could result in softening of the asphaltic oil (asphalt binder), which in turn could result in increased potential for rutting, shoving or raveling of the pavement surface. This would be of particular concern where harsh tire action occurs, such as at braking and acceleration locations in the travel lanes and at parking stalls. The use of higher viscosity asphalt binder will increase the relative stiffness of the asphalt concrete mix over a given temperature range than that of a low viscosity binder. With the increased viscosity of the asphalt binder and stiffness of the mix, the material will be less susceptible to for rutting, shoving or raveling. We recommend that the asphalt binder be specified to have a Viscosity Grade of AR-8000 or greater for all pavement areas.

The mineral aggregate shall be Type B, ½-inch or ¾-inch maximum, medium grading, for the wearing course and ¾-inch maximum, medium grading for the base course, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The asphalt concrete materials should comply with and be placed in accordance with the specifications presented in Section 39 of the Caltrans Standard Specifications, latest edition. Asphalt concrete should be compacted to a minimum of 96 percent of the maximum laboratory compacted (kneading compactor) unit weight.

ASTM Test procedures should be used to assess the percent relative compaction of soils, aggregate base and asphalt concrete. Aggregate and the upper 24 inches of subgrade should be compacted to at least 90 percent based on the Modified Proctor maximum compacted unit weight obtained in accordance with ASTM Test Method D1557-00. Compacted aggregate base should also be stable and unyielding when proof-rolled with a loaded ten-wheel water truck or dump truck.

Portland Cement Concrete (Rigid) Pavement

A minimum six-inch layer of compacted Class 2 Aggregate Base should be placed over the prepared subgrade prior to placement of the concrete pavements. With the addition of the aggregate base material, we recommend that a combined modulus of subgrade/base reaction value of 150 pounds per cubic inch be used in design where the rigid pavement is to be designed by a Structural Engineer.

Rigid pavement design procedures have been developed by various agencies, including AASHTO and the Portland Cement Association (PCA). We have evaluated the required pavement sections based on the procedure presented in "AASHTO Guide for Design of Pavement Structures 1993" traffic volumes.

RIGID PAVEMENT			
Traffic Index	**Portland Cement Concrete (inches)**	**Class 2 Aggregate Base (inches)**	**Compacted Subgrade (inches)**
5.0	5.0	6.0	12
7.0	6.5	6.0	12

Please note that the concrete modulus of rupture is based on *flexural strength*, not compressive strength, and should be specified accordingly. A *flexural strength* of 550 psi should be specified accordingly. Our experience is that the compressive strength will have to be on the order of 3,800 to 4,500 psi in order to achieve the required flexural strength. Prior to the construction of any rigid pavement, we recommend that concrete mix histories with flexural strength data be obtained from the proposed supplier. In the absence of flexural strength history, we recommend that laboratory trial batching and testing be performed to allow for confirmation that the proposed concrete mix is capable of producing the required flexural strength.

The concrete pavements should be designed with both longitudinal and transverse joints. The saw-cut or formed joints should extend to a minimum depth of one-fourth of the pavement thickness plus ¼ inch. Joint spacing should not exceed 15 feet. Steel reinforcement of all rigid pavements is recommended to keep the joints tight and to control temperature cracking.

Keyed joints are recommended at all construction joints to transfer loads across the joints. Joints should be reinforced with a minimum of ½ inch diameter by 48-inch long deformed reinforcing steel dowel bars placed at mid-slab depth on 18-inch center-to-center spacing to keep the joints tight for load transfer. The joints should be filled with a flexible sealer. Expansion joints should be constructed only where the pavements abut structures or fixed objects.

Smooth bar dowels, with a diameter of d/8, where d equals the thickness of the concrete, at least 14 inches in length, placed at a spacing of 12 inches on center, may also be considered for construction

joints to transfer loads across the joints. The dowels should be centered across the joints with one side of the dowel lubricated to reduce the bond strength between the dowel and the concrete and fitted with a plastic cap to allow for bar expansion.

SOIL CORROSIVITY

Excessive sulfate or chloride in either the soil or native water may result in an adverse reaction between the cement in concrete and the soil. Results of tests for water-soluble sulfate and chloride content of soil samples from the subject site, performed by a chemist registered with the state of California, indicate a soluble sulfate concentration of 160 ppm. Based on these test results, the near surface soils encountered are indicated to have a moderate potential for sulfate attack of concrete in contact with site soils. As such, it is recommended that Type V Portland cement concrete be used for concrete in contact with soil in order to address sulfate content in the near surface soil.

LOS ANGELES COUNTY 111 STATEMENT

Provided the recommendations presented in the referenced Geotechnical Engineering Investigation report are followed, the proposed grading will not be impacted by landsliding or slippage. The proposed development is not expected to introduce adverse impacts to the geologic stability of the property outside the building area. The subject site is not located adjacent to any significant slopes. In addition, the proposed grading is not understood to introduce any significant slopes. As a result, landsliding or slippage is not considered a concern for the subject site. Provided the recommendations presented in the project Geotechnical Engineering Investigation report are incorporated into the design and construction of the proposed development, the proposed development is not expected to introduce any adverse impact on the geologic stability of the property outside the proposed building area.

The anticipated grading and proposed structure will not be subject to landsliding, slippage, or settlement. The completed grading and proposed development will not have an adverse impact on the geologic stability of adjacent properties or improvements. This finding is in accordance with Section 111 of the 2002 County of Los Angeles Building Code.

ADDITIONAL SERVICES

Krazan & Associates should be retained to review your final foundation and grading plans, and specifications. It has been our experience that this review provides an opportunity to detect misinterpretation or misunderstandings with respect to the recommendations presented in this report prior to the start of construction.

Variations in soil types and conditions are possible and may be encountered during construction. In order to permit correlation between the soil data obtained during this investigation and the actual soil conditions encountered during construction, a representative of Krazan & Associates, Inc. should be present at the site during the earthwork and foundation construction activities to confirm that actual subsurface conditions are consistent with those contemplated in our development of this report. This will allow us the opportunity to compare actual conditions exposed during construction with those encountered in our investigation and to expedite supplemental recommendations if warranted by the exposed conditions. This activity is an integral part of our service, as acceptance of earthwork

construction is dependent upon compaction testing and stability of the material. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

All earthworks should be performed in accordance with the recommendations presented in this report, or as recommended by Krazan & Associates during construction. Krazan & Associates should be notified at least five working days prior to the start of construction and at least two days prior to when observation and testing services are needed. Krazan & Associates, Inc. will not be responsible for grades or staking, since this is the responsibility of the Prime Contractor.

The review of plans and specifications, and the observation and testing of earthwork related construction activities by Krazan & Associates are important elements of our services if we are to remain in the role of Geotechnical Engineer-Of-Record. If Krazan & Associates is not retained for these services, the client and the consultants providing these services will be assuming our responsibility for any potential claims that may arise during or after construction.

LIMITATIONS

Geotechnical Engineering is one of the newest divisions of Civil Engineering. This branch of Civil Engineering is constantly improving as new technologies and understanding of earth sciences advance. Although your site was analyzed using appropriate and current techniques and methods, undoubtedly there will be substantial future improvements in this branch of engineering. In addition to advancements in the field of Geotechnical Engineering, physical changes in the site due to site clearing or grading activities, new agency regulations, or possible changes in the proposed structure or development after issuance of this report will result in the need for professional review of this report. Updating or revisions to the recommendations in the report, and possibly additional study of the site may be required at that time. In light of this, the Owner should be aware that there is a practical limit to the usefulness of this report without critical review. Although the time limit for this review is strictly arbitrary, it is suggested that two years be considered a reasonable time for the usefulness of this report.

Foundation and earthwork construction is characterized by the presence of a calculated risk that soil and groundwater conditions have been fully revealed by the original foundation investigation. This risk is derived from the practical necessity of basing interpretations and design conclusions on limited sampling of the earth. The recommendations made in this report are based on the assumption that soil conditions do not vary significantly from those disclosed during our field investigation. The logs of the exploratory borings do not provide a warranty as to the conditions that may exist beneath the entire site. The extent and nature of subsurface soil and groundwater variations may not become evident until construction begins. It is possible that variations in soil conditions and depth to groundwater could exist beyond the points of exploration that may require additional studies, consultation, and possible design revisions.

If conditions are encountered in the field during construction, which differ from those described in this report, our firm should be contacted immediately to provide any necessary revisions to these recommendations.

This report presents the results of our Geotechnical Engineering Investigation, which was conducted for the purpose of evaluating the soil conditions in terms of foundation and retaining wall design, and

grading and paving of the site. This report does not include reporting of any services related to environmental studies conducted to assess the presence or absence of hazardous and/or toxic materials in the soil, groundwater, or atmosphere, or the presence of wetlands. No analytical testing was performed for evaluation of environmental constituents. Any statements in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, are strictly for descriptive purposes and are not intended to convey professional judgment regarding the presence of potentially hazardous or toxic substances. Conversely, the absence of statements in this report or on any boring log regarding odors, unusual or suspicious items, or conditions observed, does not constitute our rendering professional judgment regarding the absence of potentially hazardous or toxic substances.

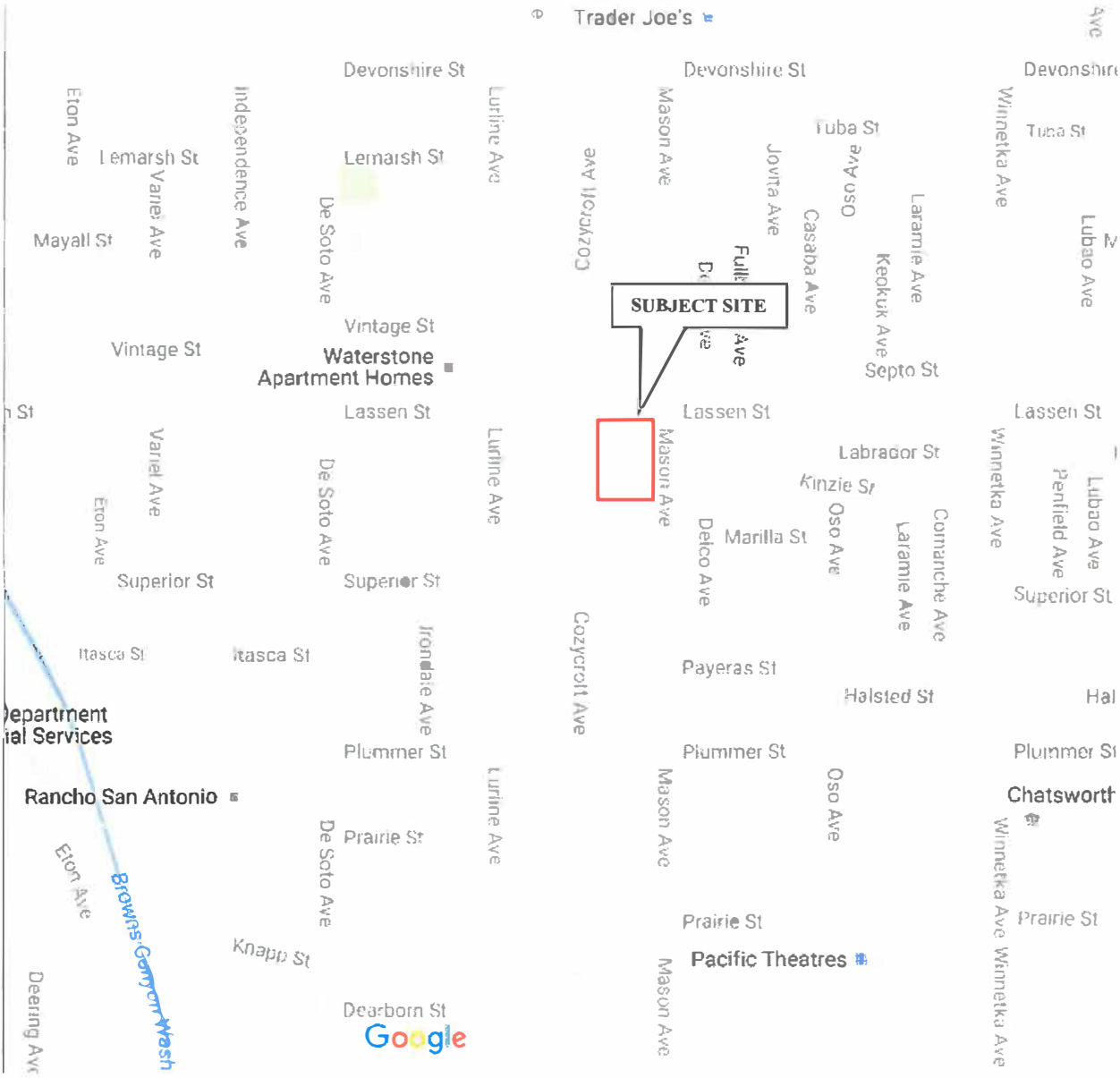
The conclusions of this report are based on the information provided regarding the proposed construction. We emphasize that this report is valid for the project as described in the text of this report and it should not be used for any other sites or projects. The geotechnical engineering information presented herein is based upon our understanding of the proposed project and professional interpretation of the data obtained in our studies of the site. It is not warranted that such information and interpretation cannot be superseded by future geotechnical engineering developments. The Geotechnical Engineer should be notified of any changes to the proposed project so the recommendations may be reviewed and re-evaluated. The work conducted through the course of this investigation, including the preparation of this report, has been performed in accordance with the generally accepted standards of geotechnical engineering practice, which existed in geographic area of the project at the time the report was written. No other warranty, express or implied, is made. This report is issued with the understanding that the owner chooses the risk they wish to bear by the expenditures involved with the construction alternatives and scheduling that are chosen.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (951) 273-1011.

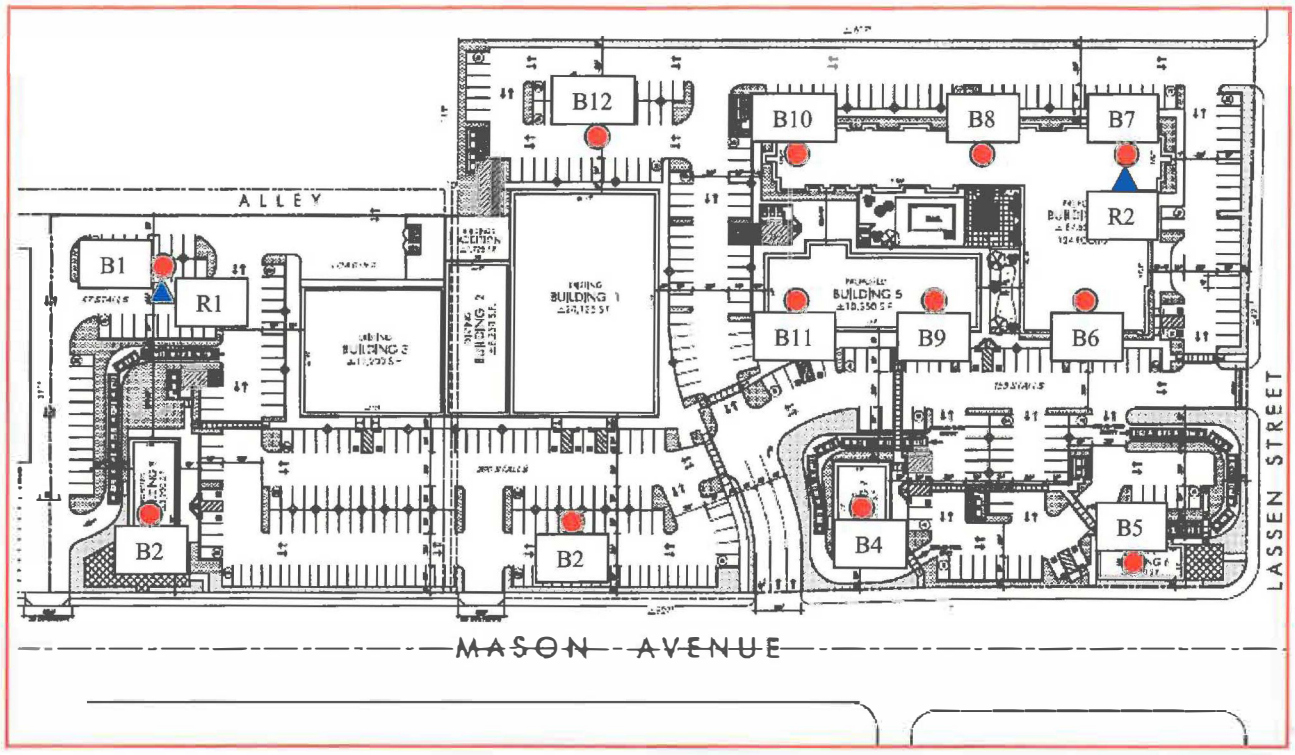
Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

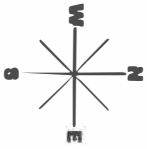
James M. Kellogg, PE, GE
Managing Engineer
RGE No. 65092, GE No. 2902

Figures



VICINITY MAP	Scale: NTS	Date: Oct. 5, 2016	Krazan GEOTECHNICAL ENGINEERING
PROPOSED RETAIL CENTER 9825 MASON AVENUE CHATSWORTH, CALIFORNIA	Drawn by: SK	Approved by: JK	
	Project No. 112-16090	Figure No. 1	

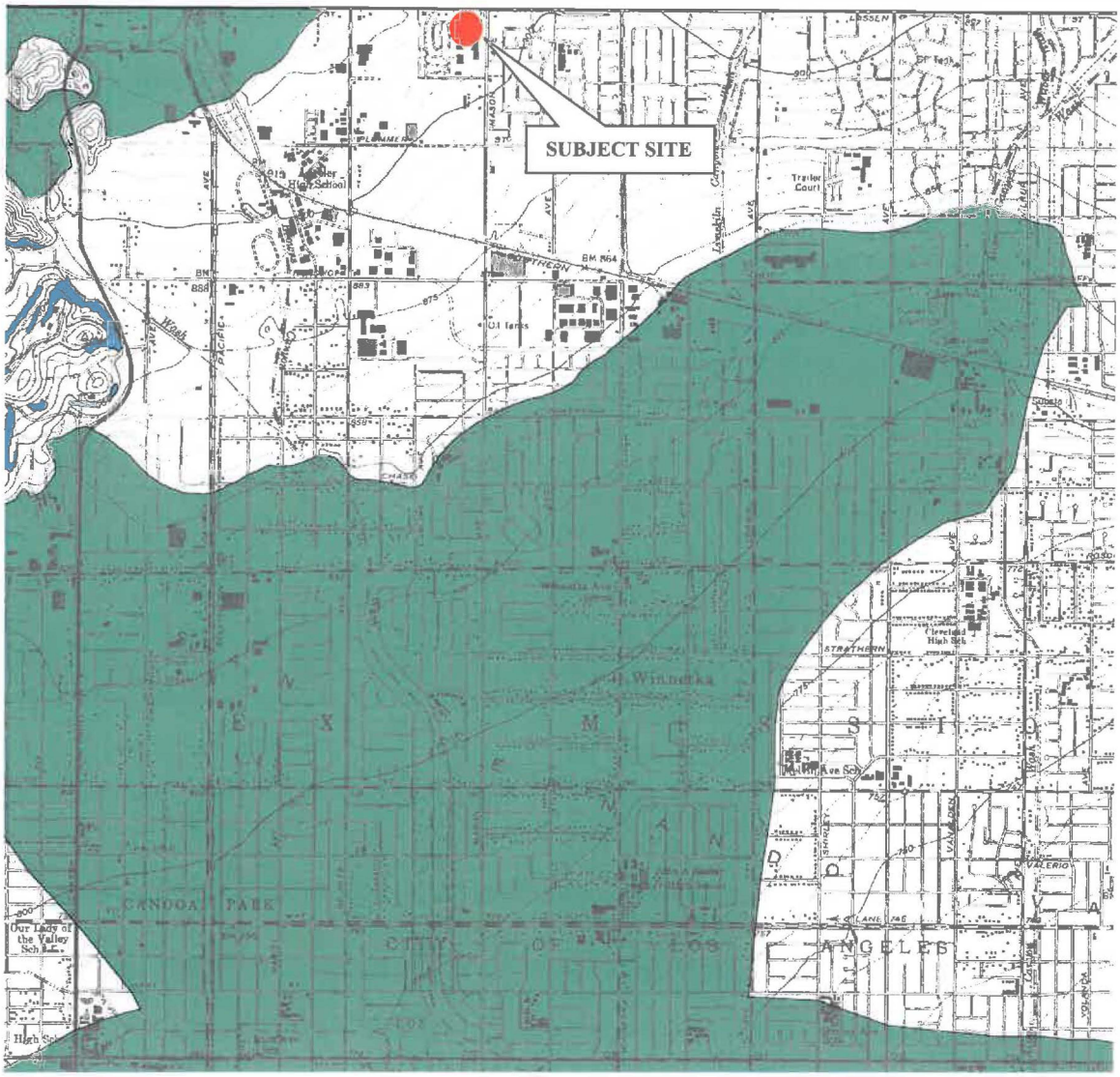




APPROXIMATE BORING LOCATION

APPROXIMATE R-VALUE LOCATION

SITE MAP	**Scale:** NTS	**Date:** Oct. 5, 2016	Krazan GEOTECHNICAL ENGINEERING
PROPOSED RETAIL CENTER **9825 MASON AVENUE** **CHATSWORTH, CALIFORNIA**	**Drawn by:** SK	**Approved by:** JK	
	Project No. 112-16090	**Figure No.** 2	



MAP EXPLANATION

Zones of Required Investigation:

Liquefaction

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

N
W E
S

Source: State of California Seismic Hazards Map, Canoga Park Quadrangle

LIQUEFACTION HAZARD ZONE MAP	**Scale:** NTS	**Date:** Oct. 5, 2016	Krazan GEOTECHNICAL ENGINEERING
PROPOSED RETAIL CENTER 9825 MASON AVENUE CHATSWORTH, CALIFORNIA	**Drawn by:** SK	**Approved by:** JK	
	Project No. 112-16090	**Figure No.** 3	

Appendix A

Log of Borings & Laboratory Testing

APPENDIX A

FIELD AND LABORATORY INVESTIGATIONS

Field Investigation

Our field investigation consisted of a surface reconnaissance and a subsurface exploration program consisted of drilling, logging and sampling a total of twelve (12) borings. The depths of exploration extended to depth ranging from approximately 10 to 50 feet below the existing site surface.

A member of our staff carefully visually classified the soils in the field as the drilling progressed and recorded a continuous log of each boring. Visual classification of the soils encountered in our exploratory borings was made in general accordance with the Unified Soil Classification System (ASTM D2487). A key for the classification of the soil and the boring logs are presented in this Appendix.

During drilling operations, penetration tests were performed at regular intervals to evaluate the soil consistency and to obtain information regarding the engineering properties of the subsoils. Samples were obtained from the borings by driving either a 2.5-inch inside diameter Modified California tube sampler fitted with brass sleeves or a 2-inch outside diameter, 1-3/8-inch inside diameter Standard Penetration ("split-spoon") Test (SPT) sampler without sleeves. Soil samples were retained for possible laboratory testing. The samplers were driven up to a depth of 18 inches into the underlying soil using a 140-pound hammer falling 30 inches. The downhole ("safety") hammer was raised by a winch between blows. The number of blows required to drive the sampler was recorded for each 6-inch penetration interval and the number of blows required to drive the sampler the last 12 inches are shown as blows per foot on the boring logs.

The approximate locations of our borings and bulk samples are illustrated on the Site Plan, Figure 2. These approximate locations were estimated in the field based on pacing and measuring from the limits of existing site features.

Laboratory Investigation

The laboratory investigation was programmed to determine the physical and mechanical properties of the soil underlying the site. The laboratory testing program was formulated with emphasis on the evaluation of in situ moisture, density, gradation, shear strength, consolidation potential, expansion potential and R-Value of the materials encountered. In addition, site soil samples were sent to a chemist for testing to evaluate the soil/cement reactivity and corrosivity. Test results were used in our engineering analysis with respect to site and building pad preparation through mass grading activities, foundation and retaining wall design recommendations, pavement section design, evaluation of the materials as possible fill materials and for possible exclusion of some soils from use at the structures as fill or backfill.

Select laboratory test results are presented on the boring logs, with graphic or tabulated results of selected tests included in this Appendix. The laboratory test data, along with the field observations, was used to prepare the final boring logs presented in the Appendix.

UNIFIED SOIL CLASSIFICATION SYSTEM

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size.)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size	Clean Gravels (Less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)	GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size	Clean Sands (Less than 5% fines)	SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)	SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

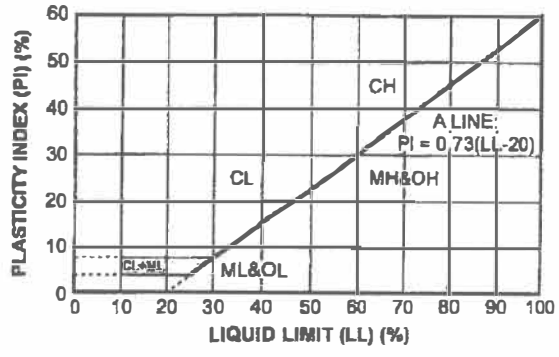
CONSISTENCY CLASSIFICATION

Description	Blows per Foot
Granular Soils	
Very Loose	< 5
Loose	5 – 15
Medium Dense	16 – 40
Dense	41 – 65
Very Dense	> 65
Cohesive Soils	
Very Soft	< 3
Soft	3 – 5
Firm	6 – 10
Stiff	11 – 20
Very Stiff	21 – 40
Hard	> 40

GRAIN SIZE CLASSIFICATION

Grain Type	*Standard Sieve Size*	*Grain Size in Millimeters*
Boulders	Above 12 inches	Above 305
Cobbles	12 to 13 inches	305 to 76.2
Gravel	3 inches to No. 4	76.2 to 4.76
Coarse-grained	3 to ¾ inches	76.2 to 19.1
Fine-grained	¾ inches to No. 4	19.1 to 4.76
Sand	No. 4 to No. 200	4.76 to 0.074
Coarse-grained	No. 4 to No. 10	4.76 to 2.00
Medium-grained	No. 10 to No. 40	2.00 to 0.042
Fine-grained	No. 40 to No. 200	0.042 to 0.074
Silt and Clay	Below No. 200	Below 0.074

PLASTICITY CHART



Log of Boring B1

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-1

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
		ASPHALTIC CONCRETE = 4 INCHES				
		SILTY SAND (SM) Medium dense, fine- to coarse-grained; dark brown, moist				
6			107.4	6.9		21
		SANDY SILT (ML) Stiff, fine- to medium-grained; dark brown, moist				
10			95.5	14.4		16
14		***GRAVELLY SAND (SP)*** Medium dense, fine- to coarse-grained with trace SILT; brown, moist		5.2		24
18		***SILTY SAND (SM)*** Loose to medium dense, fine-grained; brown, moist				
20						

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 50 Feet

Log of Boring B1

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-1

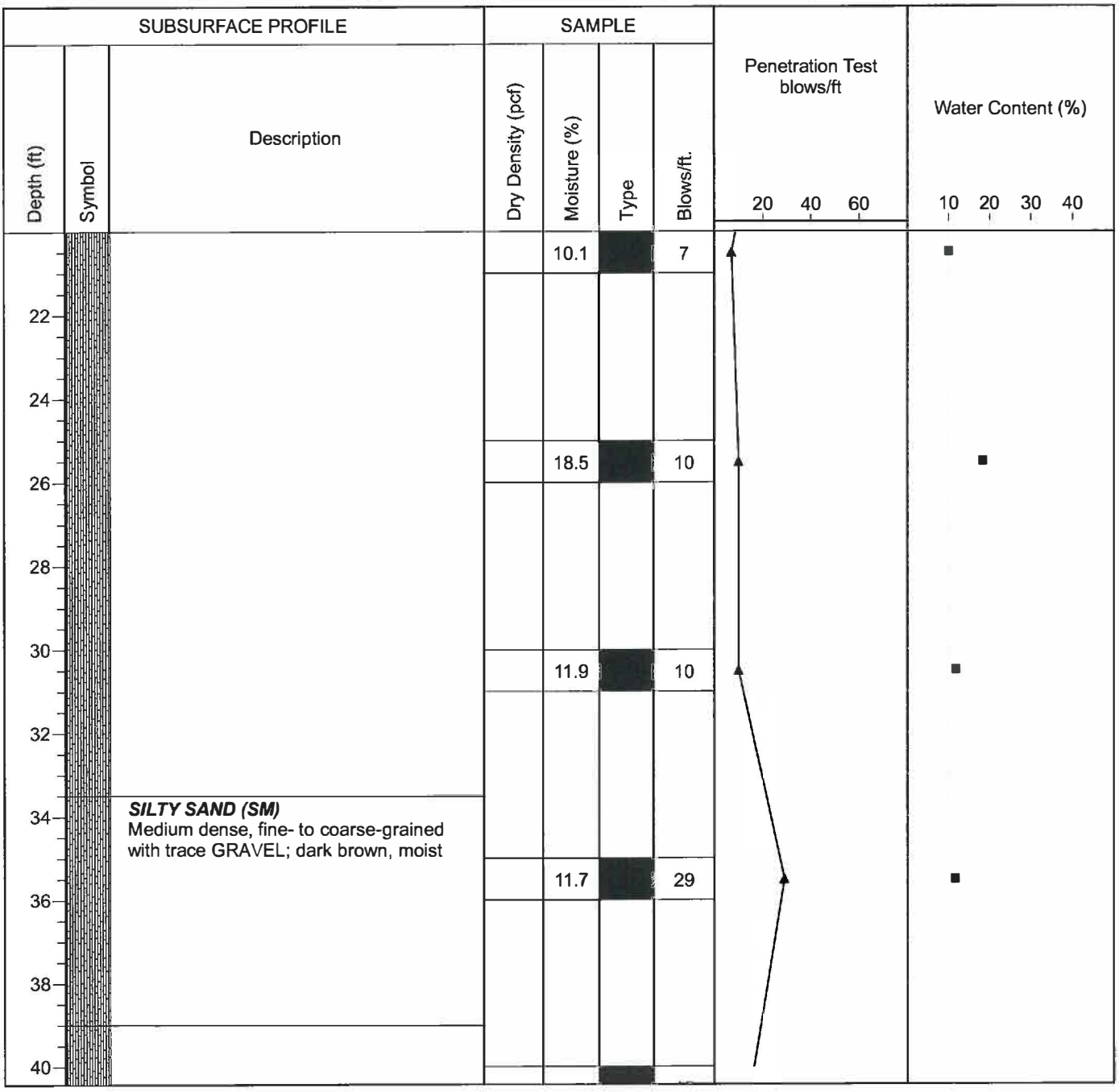
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 50 Feet

Log of Boring B1

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-1

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
42		***SILTY SAND (SM)*** Medium dense, fine-grained; brown, moist		13.1		15		
44				5.3		48		
46		***GRAVELLY SAND (SP)*** Dense, fine- to coarse-grained with trace SILT; light brown, damp						
48		***SILTY SAND (SM)*** Medium dense, fine-grained; brown, damp		15.1		17		
50		End of Borehole						
52								
54								
56								
58								
60								

Drill Method: Soild Flight

Drill Rig: CME 75

Driller: BE

Krazan and Associates

Drill Date: 9-9-16

Hole Size: 4½ Inches

Elevation: 50 Feet

Sheet: 3 of 3

Log of Boring B2

Project: Retail Center

Project No: 112-16090

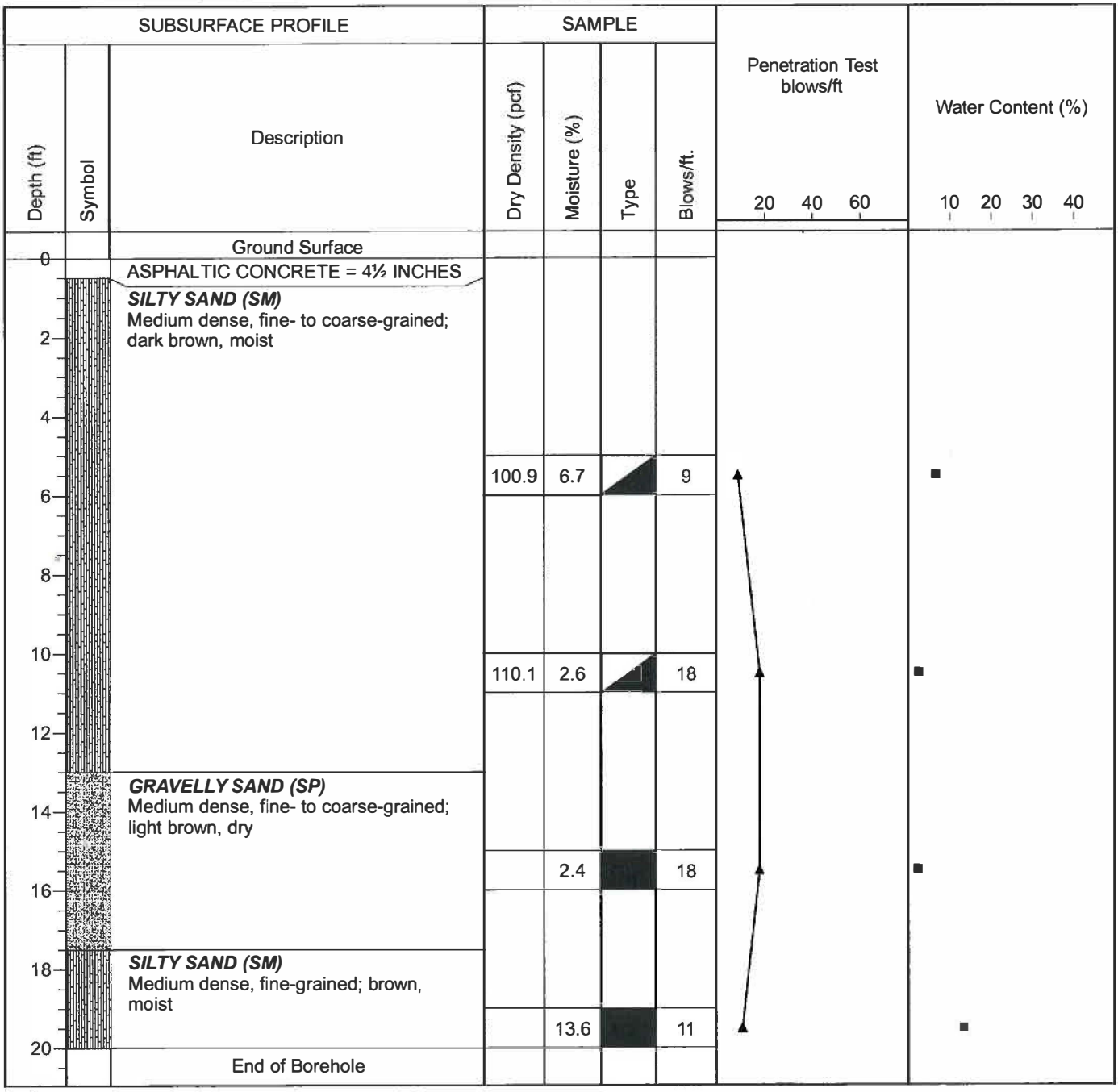
Client: HRI Development

Figure No.: A-2

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water> **Initial:** None **At Completion:** None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B3

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-3

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
0		ASPHALTIC CONCRETE = 5 INCHES				
		SILTY SAND (SM) Medium dense, fine-grained; brown, moist				
6			92.8	11.4		11
10			102.8	14.3		20
10		End of Borehole				

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40

Drill Method: Soild Flight

Drill Rig: CME 75

Driller: BE

Krazan and Associates

Drill Date: 9-9-16

Hole Size: 4½ Inches

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B4

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-4

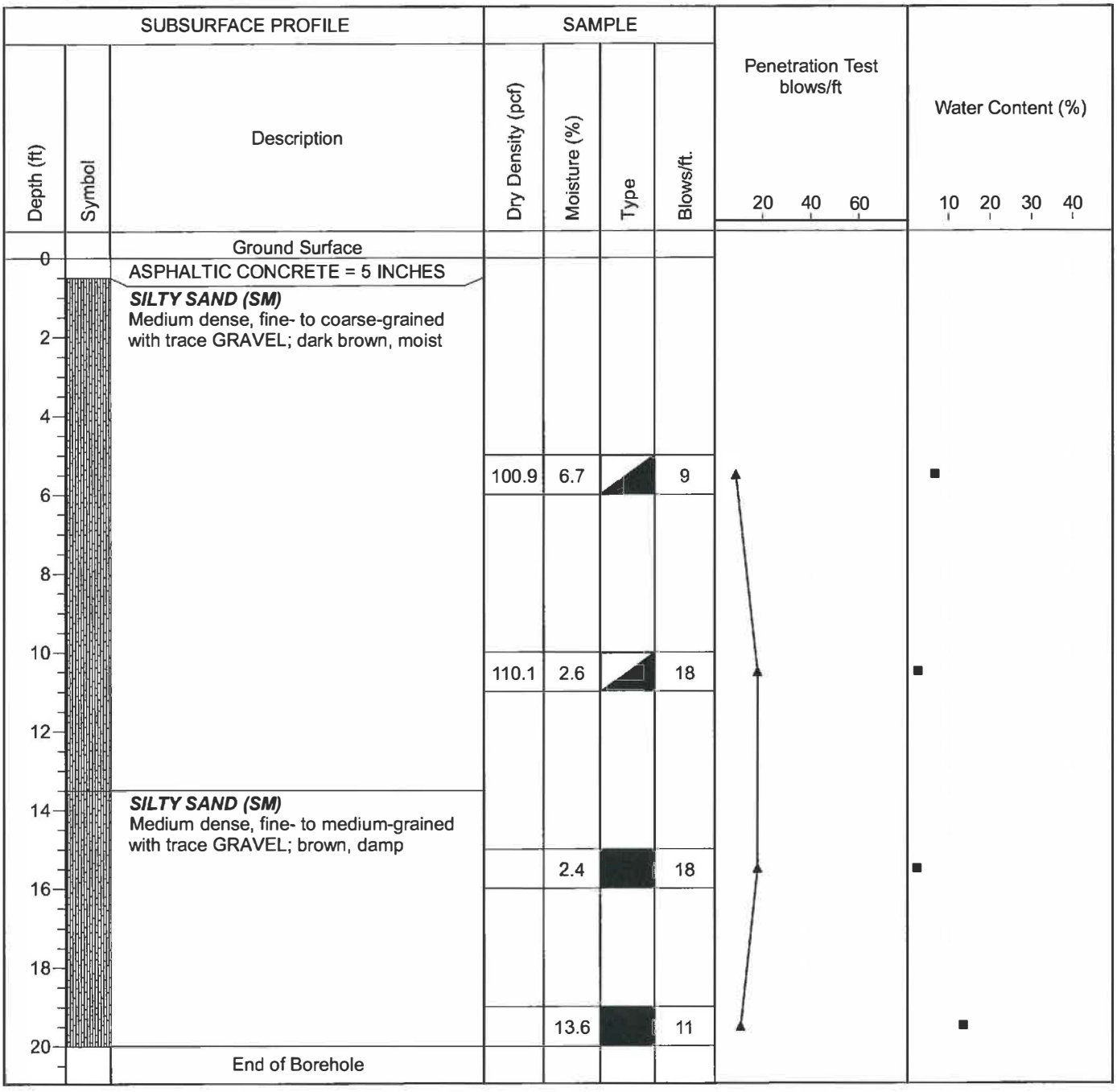
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B5

Project: Retail Center
Project No: 112-16090
Client: HRI Development
Figure No.: A-5
Location: 9825 Mason Avenue, Chatsworth, California
Logged By: JAP
Depth to Water> **Initial:** None **At Completion:** None

Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.
0		Ground Surface				
		ASPHALTIC CONCRETE = 5 INCHES				
		SILTY SAND (SM) Loose, fine- to medium-grained with trace GRAVEL; brown, moist				
6			93.5	11.6		8
10			100.5	10.1		11
		End of Borehole				

Penetration Test blows/ft: 20 40 60

Water Content (%): 10 20 30 40



Drill Method: Soild Flight
Drill Rig: CME 75
Driller: BE

Krazan and Associates

Drill Date: 9-9-16
Hole Size: 4½ Inches
Elevation: 10 Feet
Sheet: 1 of 1

Log of Boring B6

Project: Retail Center

Project No: 112-16090

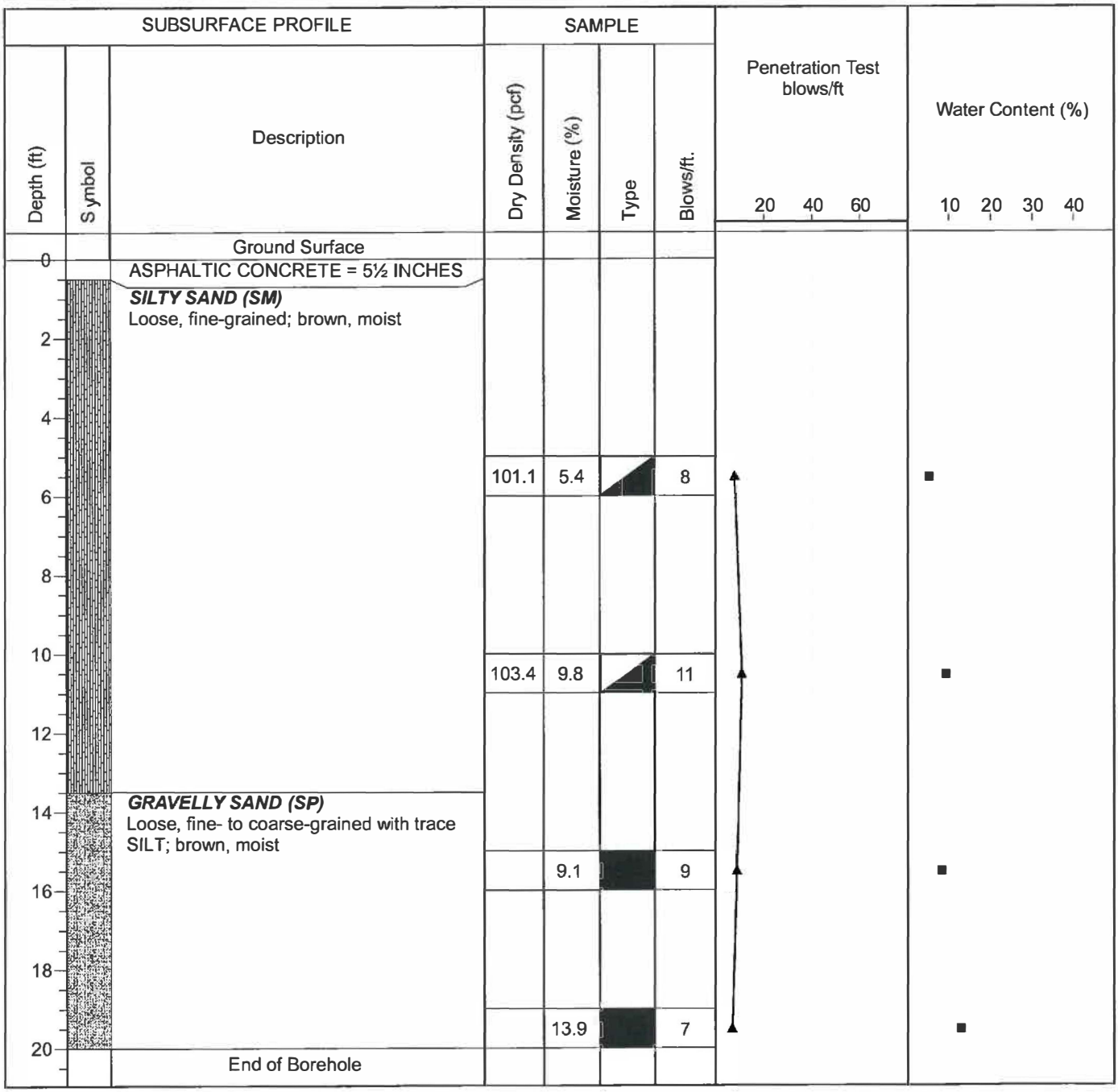
Client: HRI Development

Figure No.: A-6

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water> **Initial:** None **At Completion:** None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B7

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-7

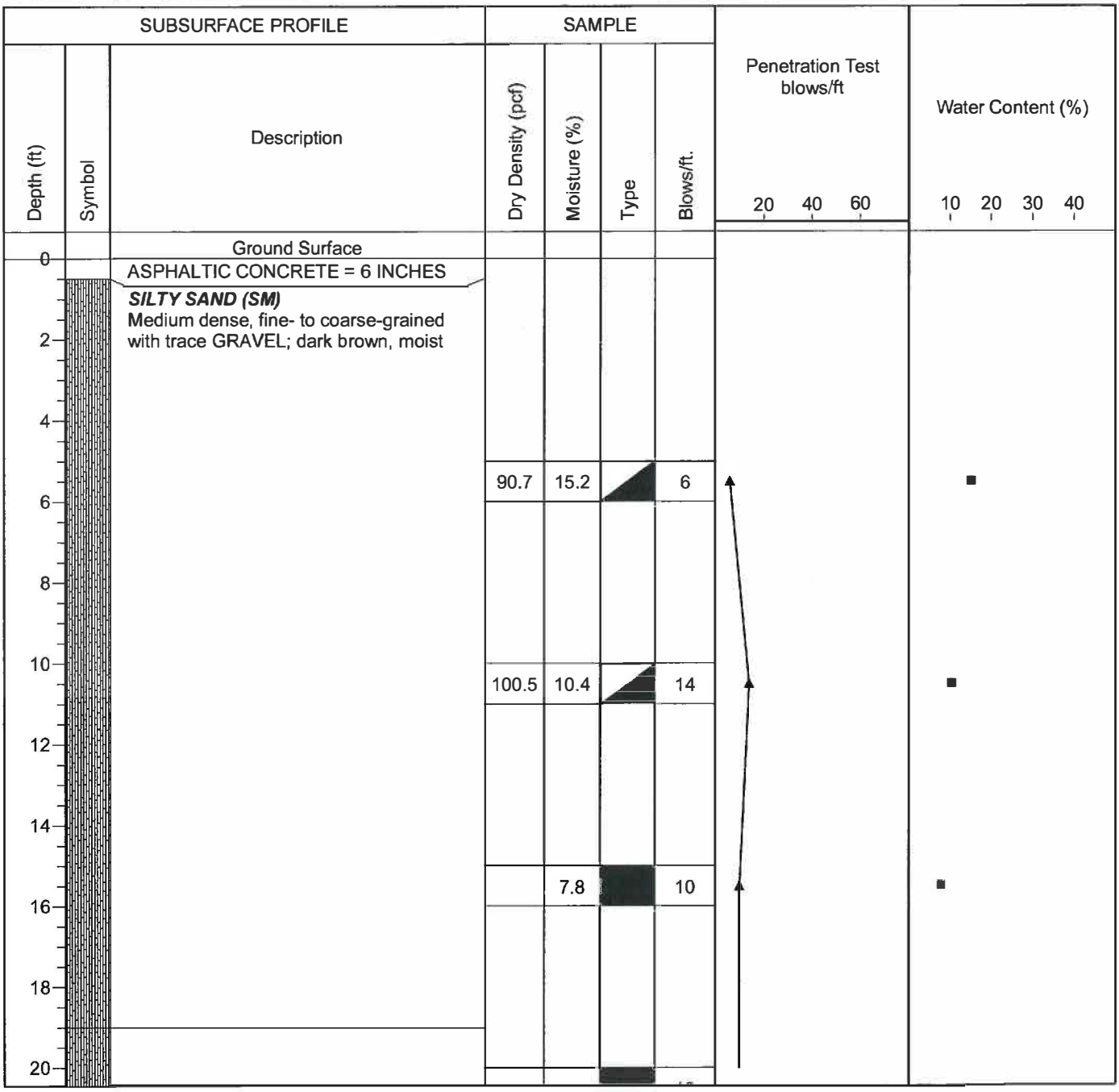
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 50 Feet

Log of Boring B7

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-7

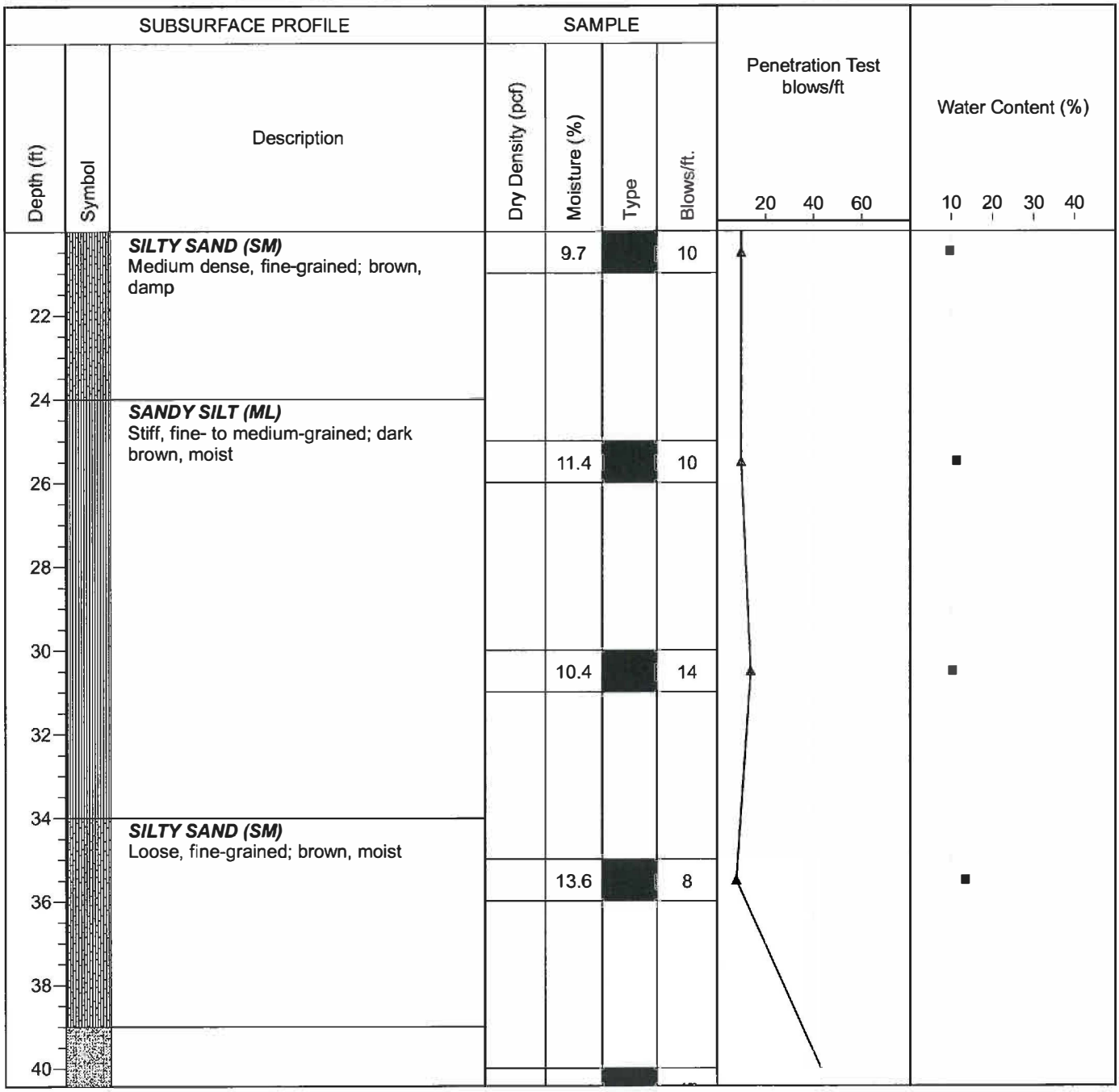
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 50 Feet

Log of Boring B7

Project: Retail Center | **Project No:** 112-16090

Client: HRI Development | **Figure No.:** A-7

Location: 9825 Mason Avenue, Chatsworth, California | **Logged By:** JAP

Depth to Water> | **Initial:** None | **At Completion:** None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
42		***GRAVELLY SAND (SP)*** Dense, fine- to coarse-grained; light brown, damp		7.2		47		
44		***SILTY SAND (SM)*** Medium dense, fine-grained; brown, moist						
46				12.3		23		
48								
50		***GRAVELLY SAND (SP)*** Dense, fine- to coarse-grained; brown, moist		13.1		47		
		End of Borehole						
52								
54								
56								
58								
60								

Drill Method: Soild Flight | **Drill Date:** 9-9-16

Drill Rig: CME 75 | **Krazan and Associates** | **Hole Size:** 4½ Inches

Driller: BE | **Elevation:** 50 Feet

Sheet: 3 of 3

Log of Boring B8

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-8

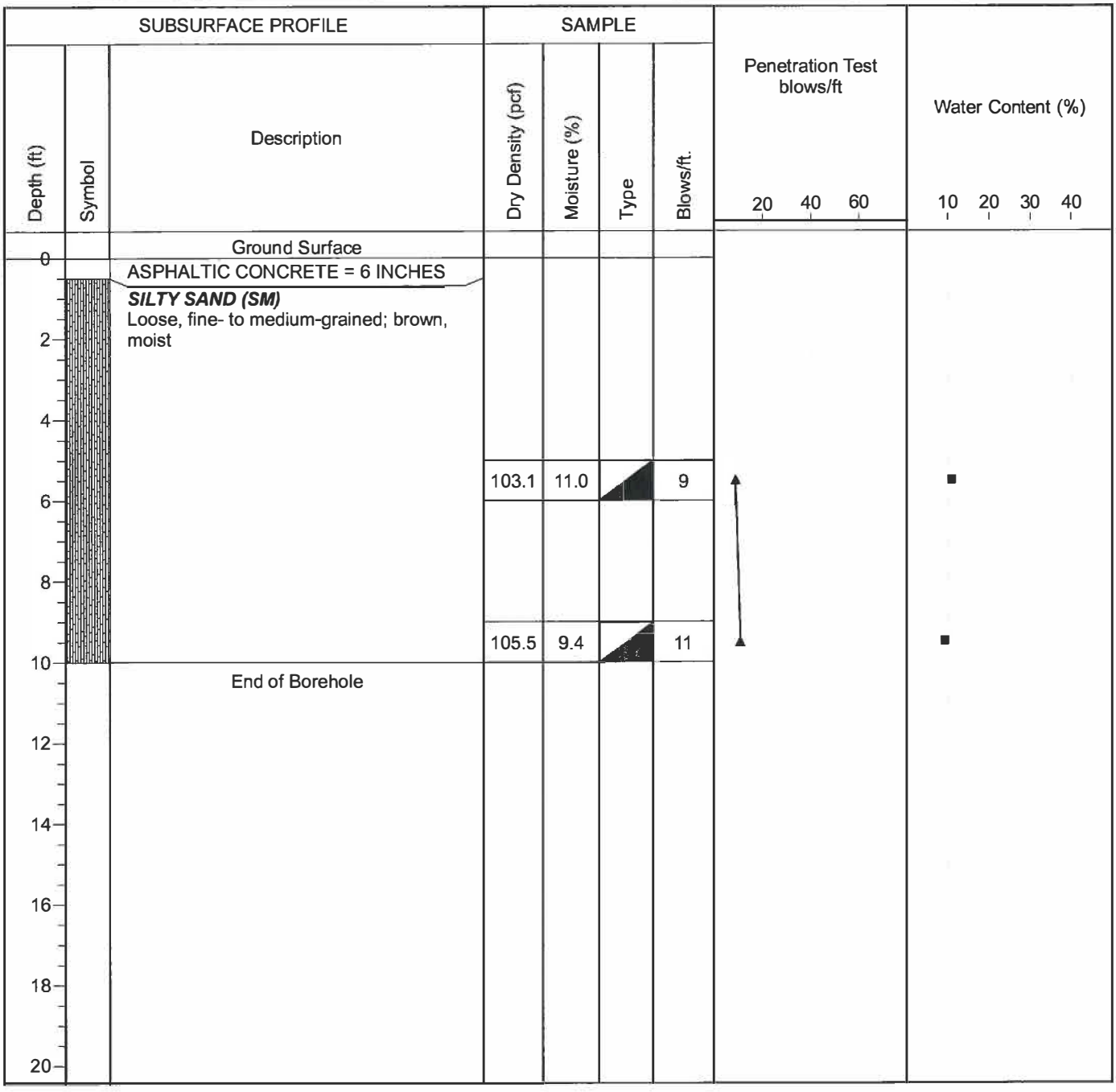
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B9

Project: Retail Center

Project No: 112-16090

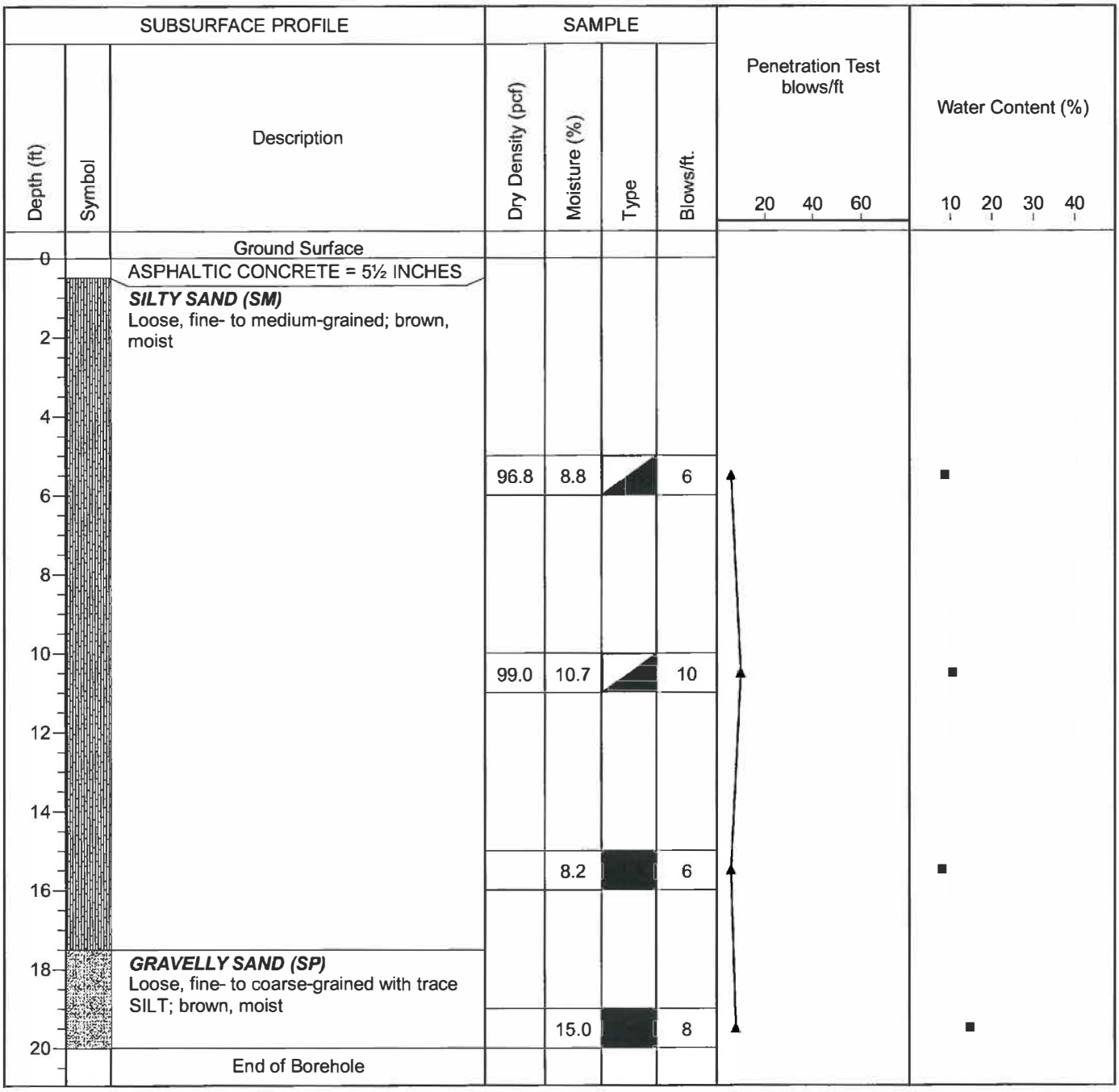
Client: HRI Development

Figure No.: A-9

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water> **Initial:** None **At Completion:** None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B10

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-10

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None

SUBSURFACE PROFILE			SAMPLE				Penetration Test blows/ft	Water Content (%)
Depth (ft)	Symbol	Description	Dry Density (pcf)	Moisture (%)	Type	Blows/ft.	20 40 60	10 20 30 40
0		Ground Surface						
		ASPHALTIC CONCRETE = 5 INCHES						
		SILTY SAND (SM) Loose, fine- to coarse-grained with trace GRAVEL; brown, moist						
2								
4								
6			103.4	12.9		7		■
8								
10			101.2	10.2		9		■
		End of Borehole						
12								
14								
16								
18								
20								

Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 10 Feet

Sheet: 1 of 1

Log of Boring B11

Project: Retail Center

Project No: 112-16090

Client: HRI Development

Figure No.: A-11

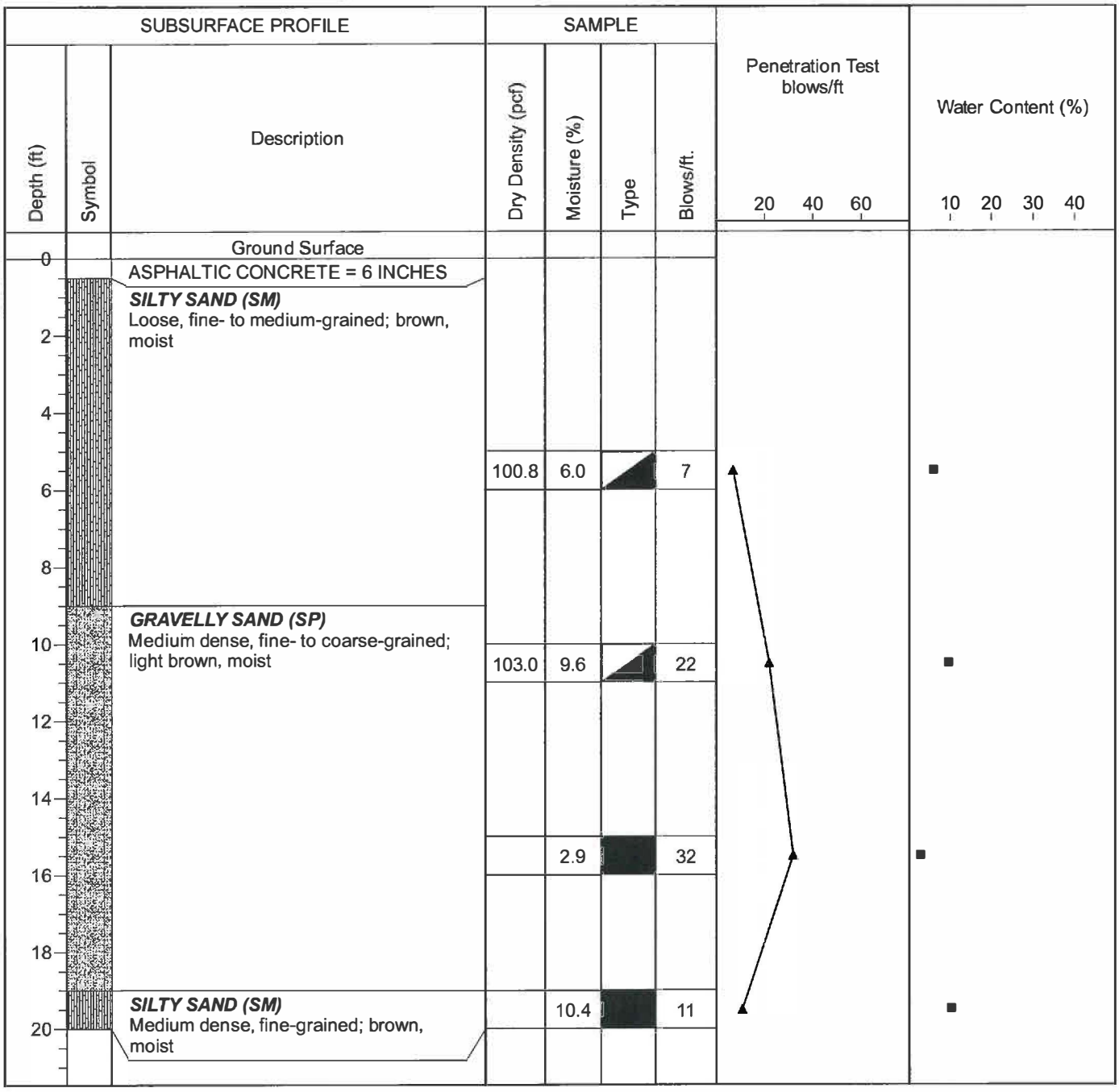
Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water>

Initial: None

At Completion: None



Drill Method: Soild Flight

Drill Date: 9-9-16

Drill Rig: CME 75

Krazan and Associates

Hole Size: 4½ Inches

Driller: BE

Elevation: 20 Feet

Sheet: 1 of 1

Log of Boring B12

Project: Retail Center

Project No: 112-16090

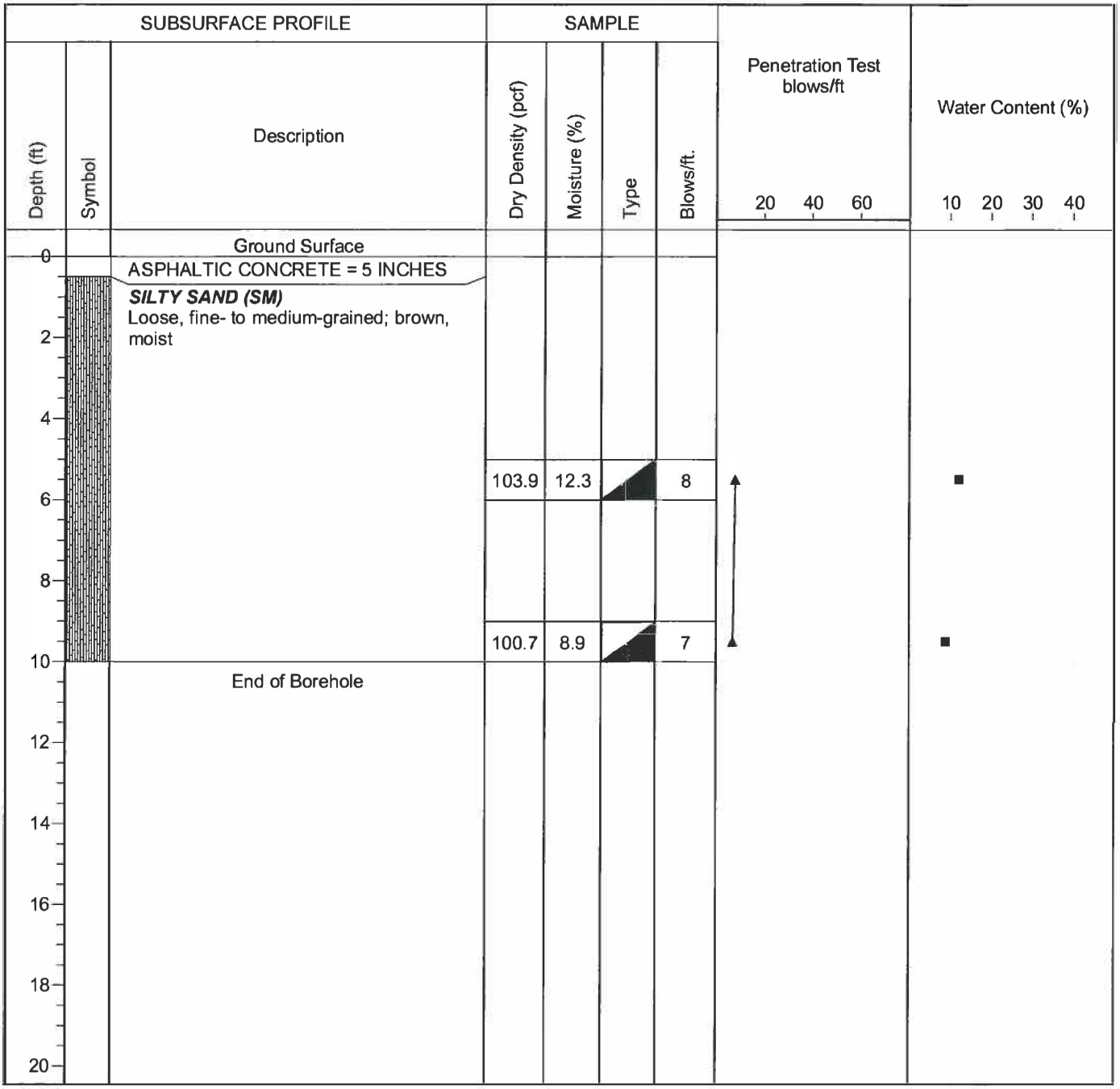
Client: HRI Development

Figure No.: A-12

Location: 9825 Mason Avenue, Chatsworth, California

Logged By: JAP

Depth to Water> **Initial:** None **At Completion:** None



Drill Method: Soild Flight

Drill Rig: CME 75

Driller: BE

Krazan and Associates

Drill Date: 9-9-16

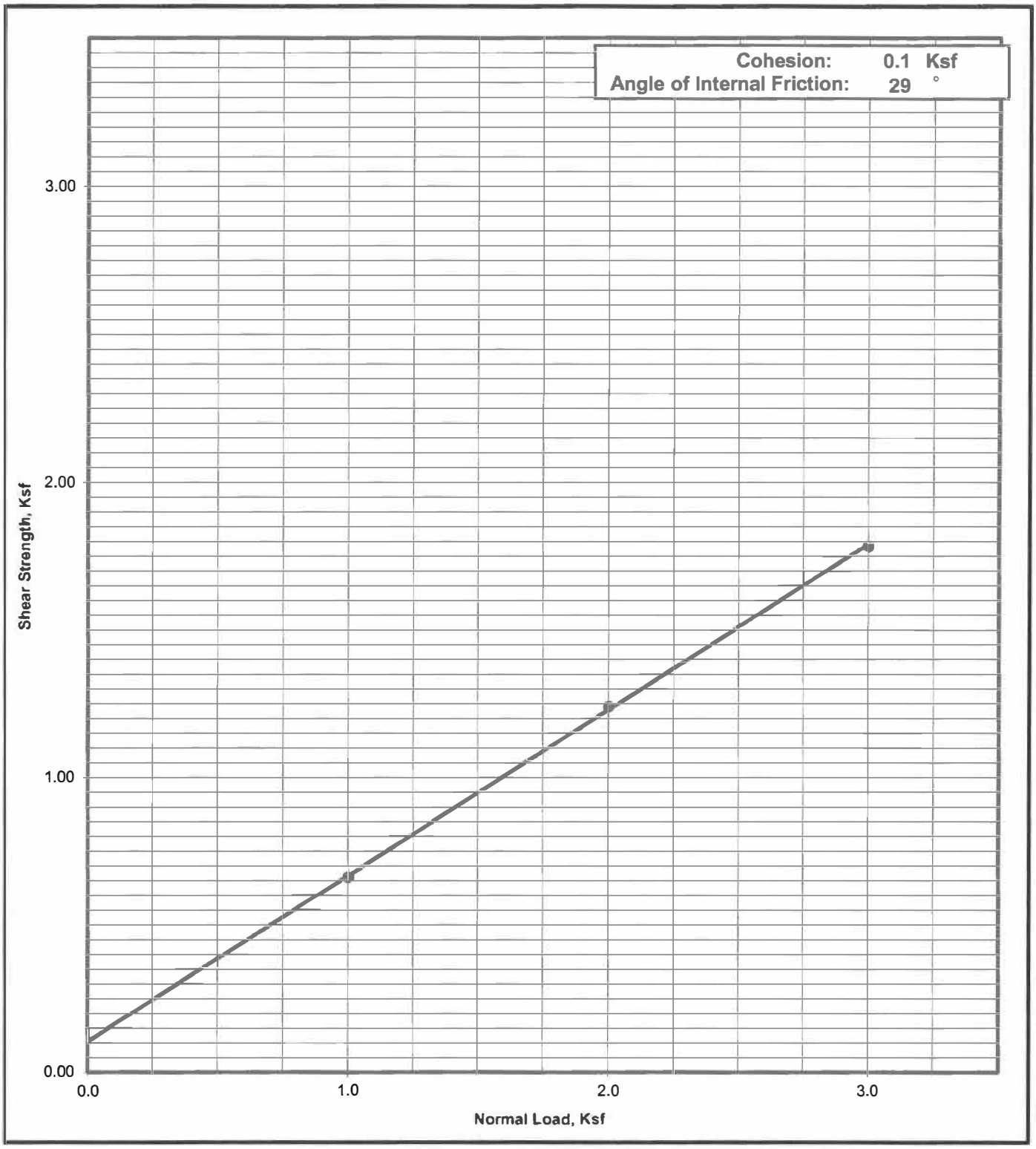
Hole Size: 4½ Inches

Elevation: 10 Feet

Sheet: 1 of 1

ASTM D - 3080 / AASHTO T - 236

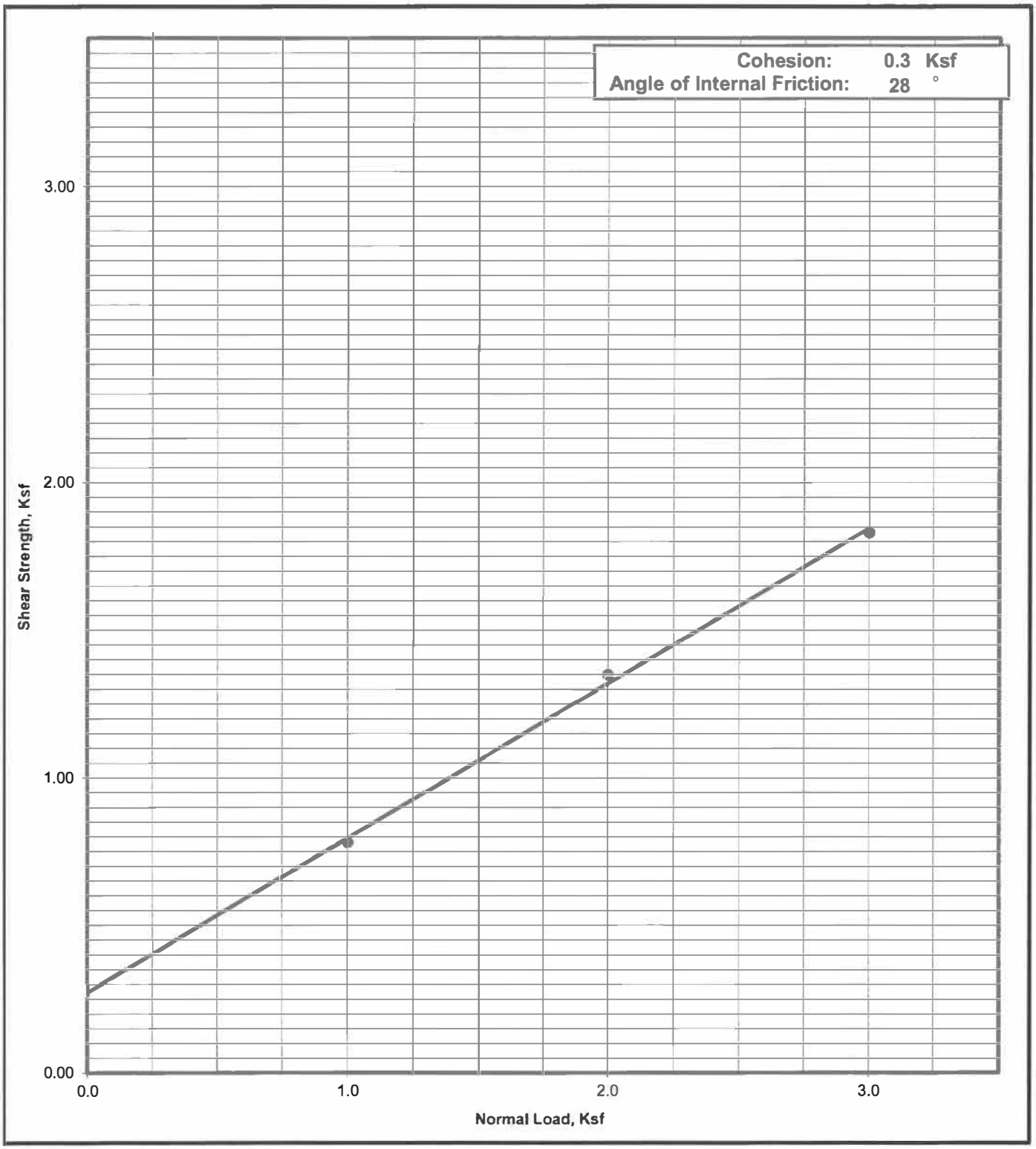
Project Number	Boring No. & Depth	Soil Type	Date
11216090	B-3 @ 5'	SM	10/3/2016



Krazan Testing Laboratory

ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
11216090	B-11 @ 5'	SM	10/3/2016



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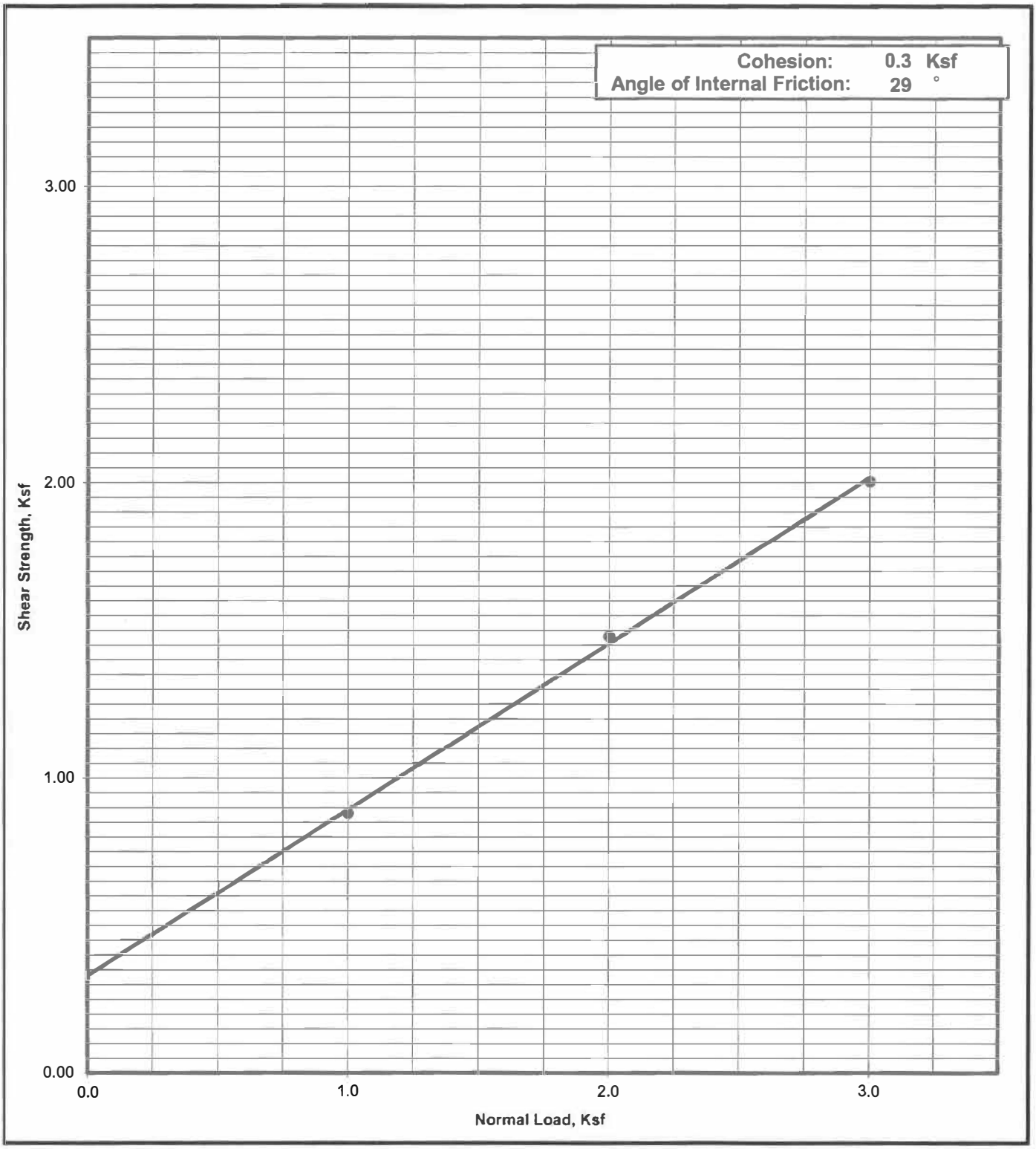
ASTM D - 3080 / AASHTO T - 236

Project Number	Boring No. & Depth	Soil Type	Date
11216090	B-7 @ 5'	SM	10/3/2016



Krazan Testing Laboratory

Sieve Analysis

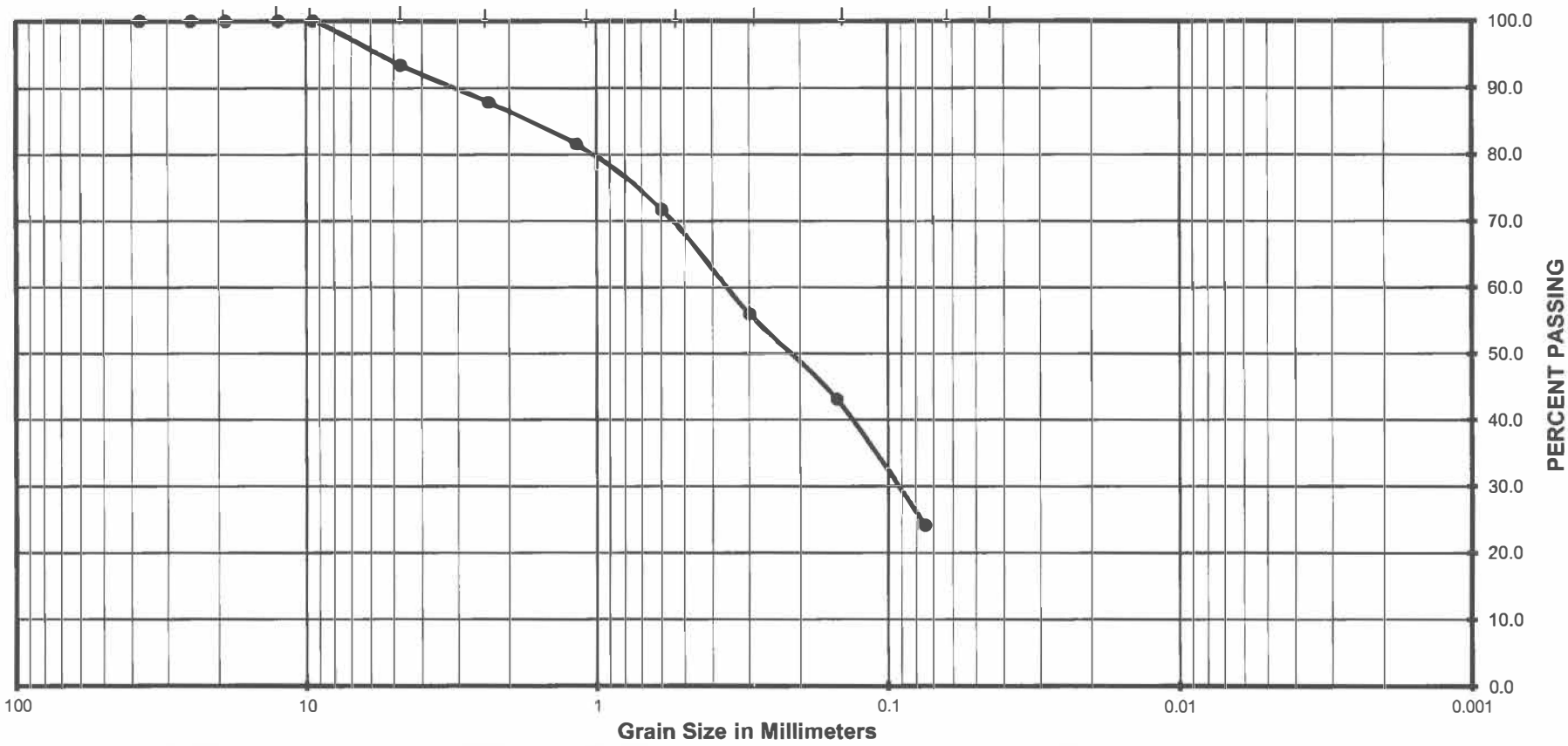
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 1 @ 5'
Soil Classification	: SM

Wet Weight	:	485.10
Dry Weight	:	485.10
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	31.8	6.6	6.6	93.4
#8	2.36	26.9	5.5	12.1	87.9
#16	1.18	30.2	6.2	18.3	81.7
#30	0.60	47.8	9.9	28.2	71.8
#50	0.30	76.7	15.8	44.0	56.0
#100	0.15	62.6	12.9	56.9	43.1
#200	0.08	92.0	19.0	75.9	24.1

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 5'

Krazan Testing Laboratory

Sieve Analysis

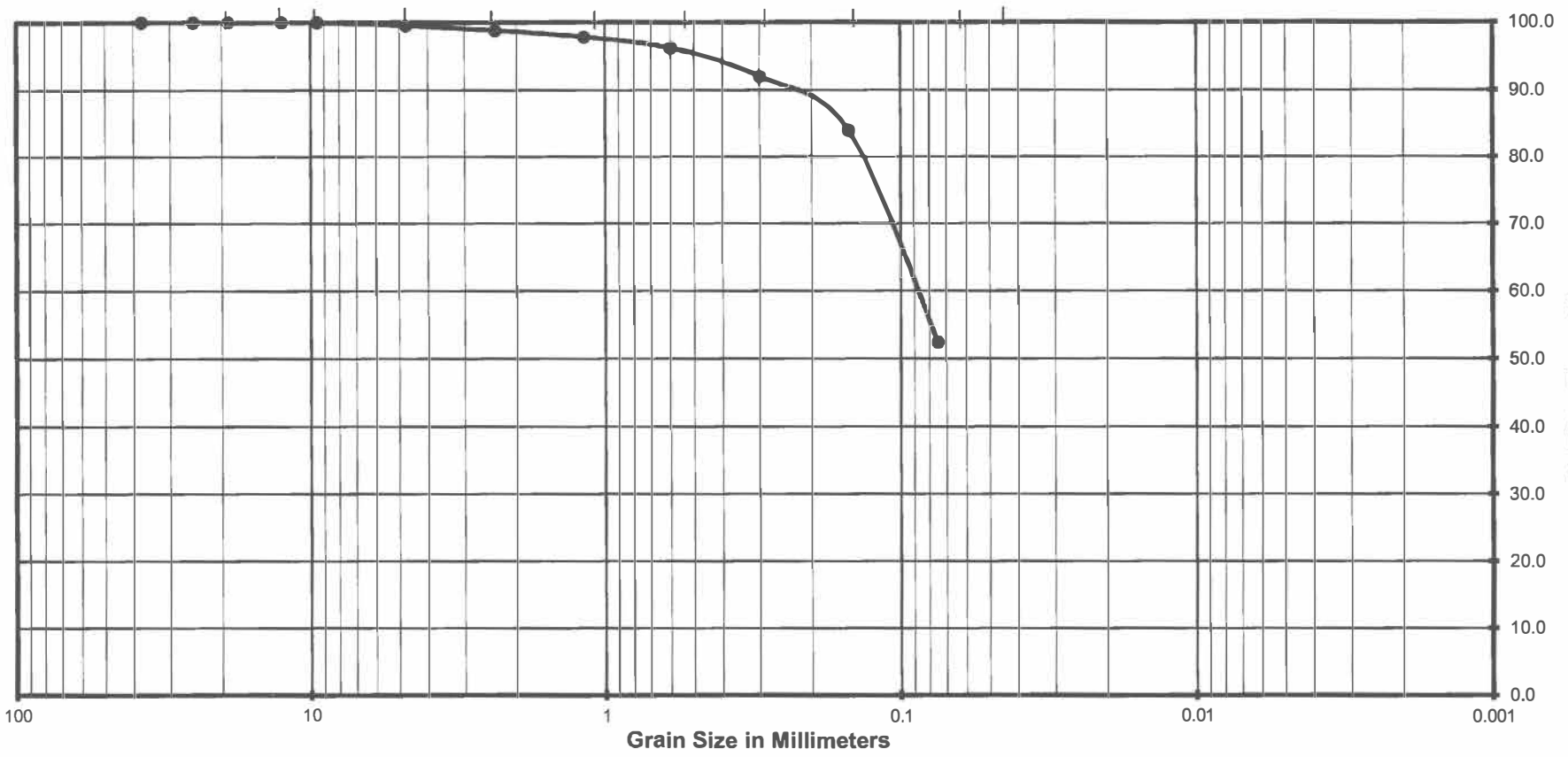
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 1 @ 10'
Soil Classification	: ML

Wet Weight	:	493.40
Dry Weight	:	493.40
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	2.3	0.5	0.5	99.5
#8	2.36	3.6	0.7	1.2	98.8
#16	1.18	4.8	1.0	2.2	97.8
#30	0.60	8.1	1.6	3.8	96.2
#50	0.30	20.6	4.2	8.0	92.0
#100	0.15	39.5	8.0	16.0	84.0
#200	0.08	155.8	31.6	47.6	52.4

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	ML
Sample Number	B- 1 @ 10'

Krazan Testing Laboratory

Sieve Analysis

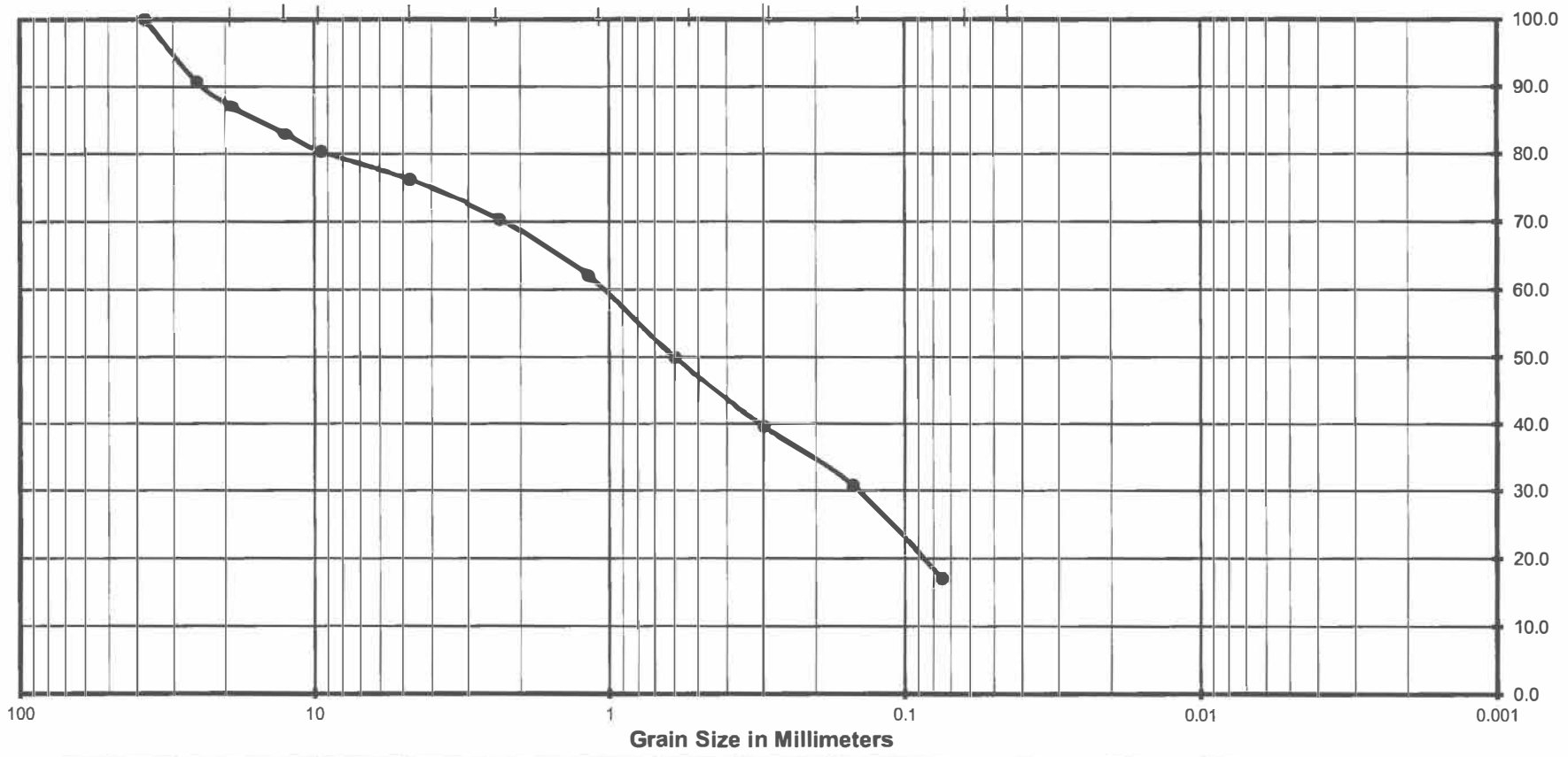
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 1 @ 15'
Soil Classification	: SP w/ gravel

Wet Weight	:	528.70
Dry Weight	:	528.70
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00	49.2	9.3	9.3	90.7
3/4"	19.00	19.4	3.7	13.0	87.0
1/2"	12.50	21.3	4.0	17.0	83.0
3/8"	9.50	13.8	2.6	19.6	80.4
#4	4.75	21.9	4.1	23.8	76.2
#8	2.36	30.9	5.8	29.6	70.4
#16	1.18	44.2	8.4	38.0	62.0
#30	0.60	64.0	12.1	50.1	49.9
#50	0.30	54.6	10.3	60.4	39.6
#100	0.15	46.5	8.8	69.2	30.8
#200	0.08	72.8	13.8	83.0	17.0

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SP w/ gravel
Sample Number	B- 1 @ 15'

Krazan Testing Laboratory

Sieve Analysis

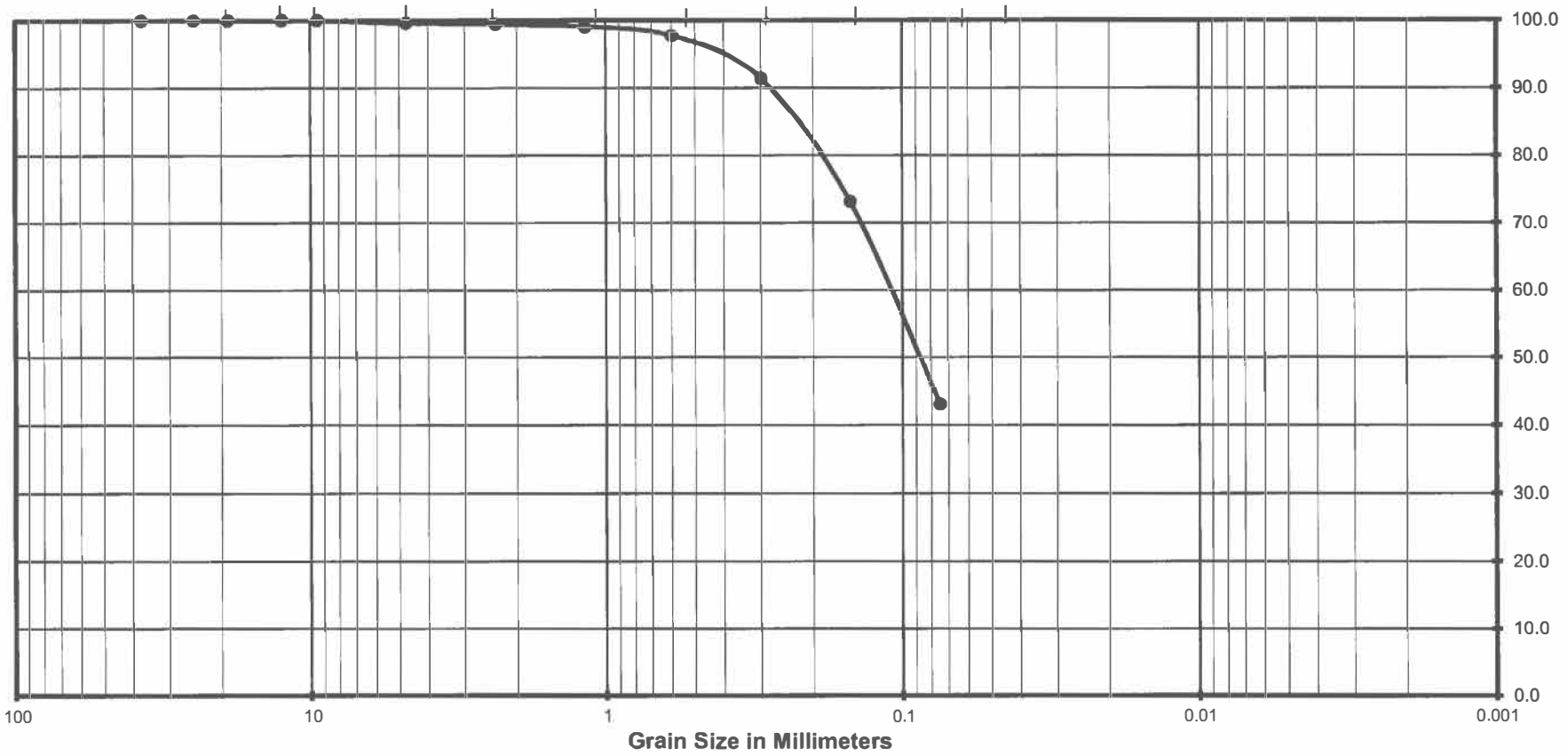
Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 1 @ 20'
Soil Classification : SM

Wet Weight	:	491.20
Dry Weight	:	491.20
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	2.0	0.4	0.4	99.6
#8	2.36	0.8	0.2	0.6	99.4
#16	1.18	1.8	0.4	0.9	99.1
#30	0.60	6.6	1.3	2.3	97.7
#50	0.30	31.0	6.3	8.6	91.4
#100	0.15	89.6	18.2	26.8	73.2
#200	0.08	148.1	30.2	57.0	43.0

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 20'

Krazan Testing Laboratory

Sieve Analysis

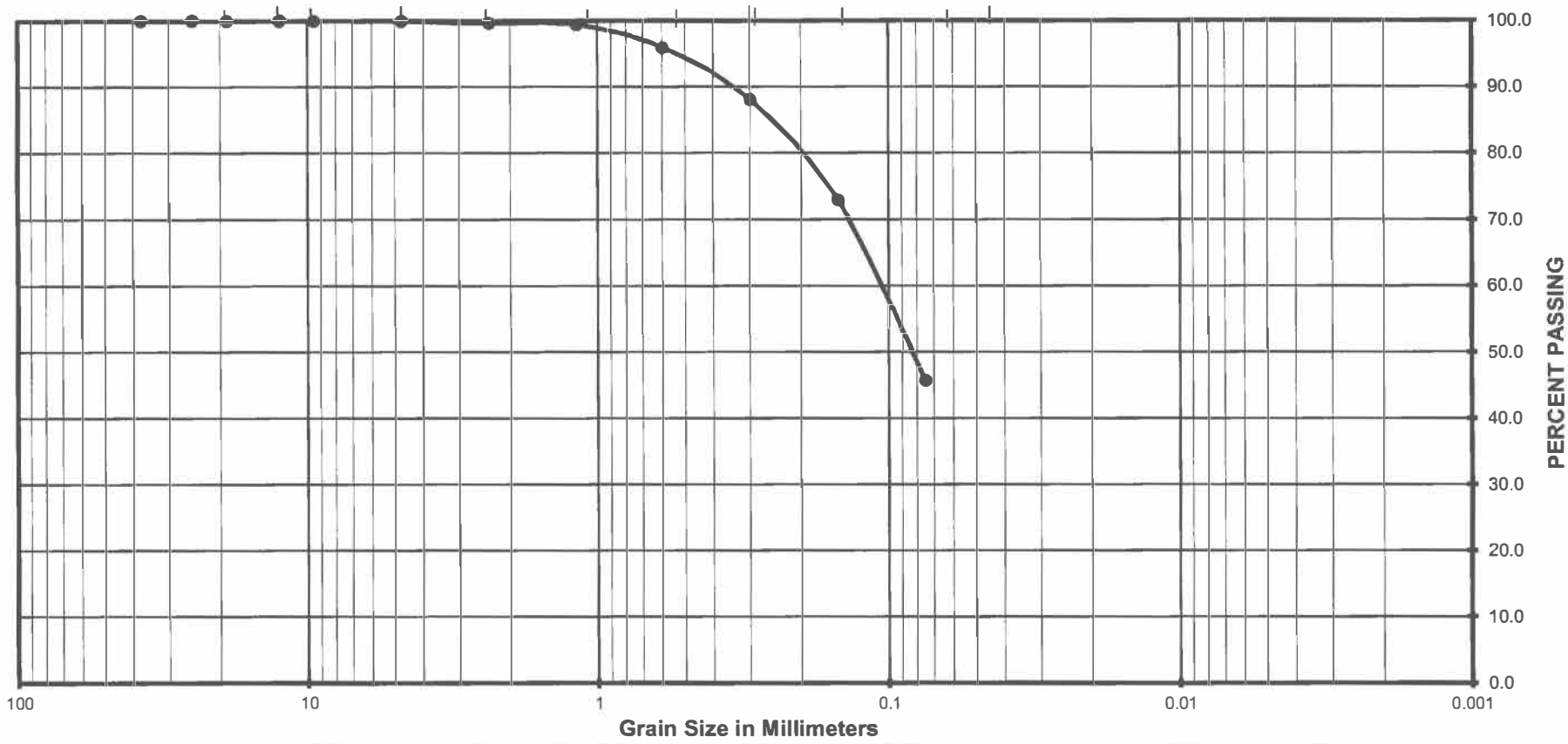
Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 1 @ 25'
Soil Classification : SM

Wet Weight	:	458.40
Dry Weight	:	458.40
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	0.4	0.1	0.1	99.9
#8	2.36	1.2	0.3	0.3	99.7
#16	1.18	1.2	0.3	0.6	99.4
#30	0.60	15.9	3.5	4.1	95.9
#50	0.30	36.4	7.9	12.0	88.0
#100	0.15	68.9	15.0	27.1	72.9
#200	0.08	124.6	27.2	54.2	45.8

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 25'

Krazan Testing Laboratory

Sieve Analysis

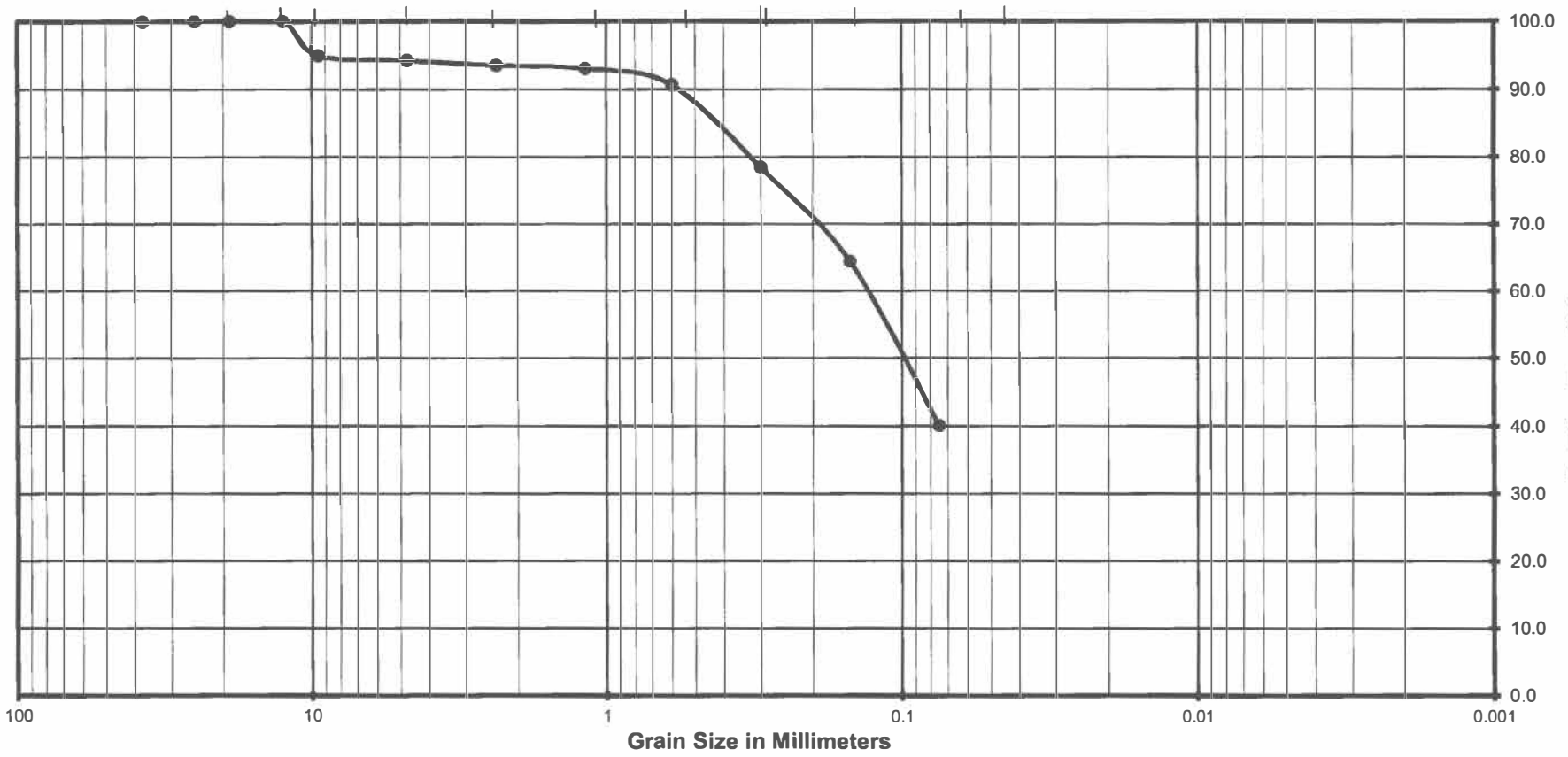
Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 1 @ 30'
Soil Classification : SM

Wet Weight	:	467.80
Dry Weight	:	467.80
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	23.5	5.0	5.0	95.0
#4	4.75	3.4	0.7	5.8	94.2
#8	2.36	3.4	0.7	6.5	93.5
#16	1.18	2.2	0.5	6.9	93.1
#30	0.60	11.2	2.4	9.3	90.7
#50	0.30	56.9	12.2	21.5	78.5
#100	0.15	65.8	14.1	35.6	64.4
#200	0.08	113.8	24.3	59.9	40.1

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 30'

Krazan Testing Laboratory

Sieve Analysis

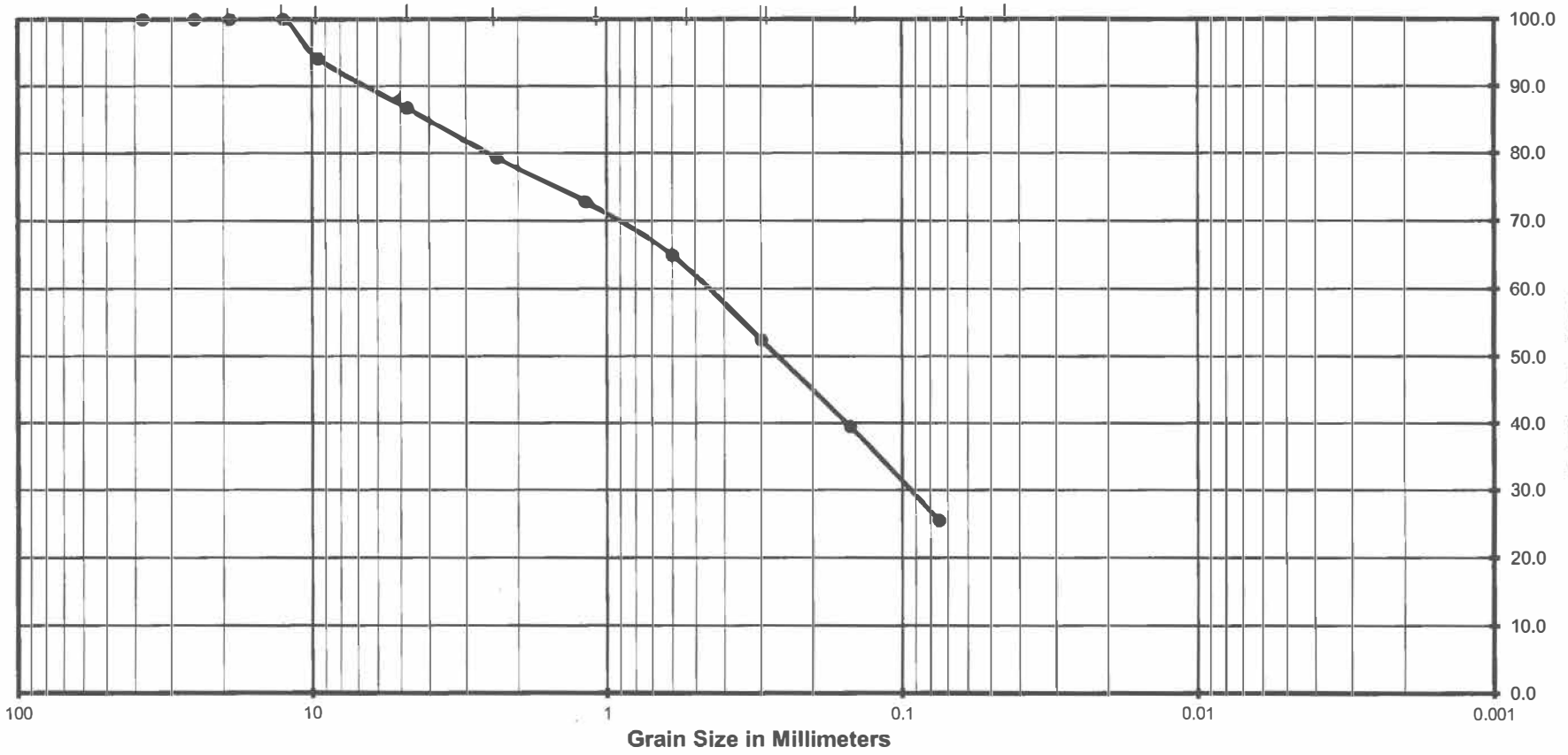
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 1 @ 35'
Soil Classification	: SM w/ gravel

Wet Weight	:	506.80
Dry Weight	:	506.80
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	30.0	5.9	5.9	94.1
#4	4.75	37.6	7.4	13.3	86.7
#8	2.36	37.4	7.4	20.7	79.3
#16	1.18	33.0	6.5	27.2	72.8
#30	0.60	39.7	7.8	35.1	64.9
#50	0.30	63.5	12.5	47.6	52.4
#100	0.15	65.5	12.9	60.5	39.5
#200	0.08	71.0	14.0	74.5	25.5

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM w/ gravel
Sample Number	B- 1 @ 35'

Krazan Testing Laboratory

Sieve Analysis

Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 1 @ 40'
Soil Classification : SM

Wet Weight	:	495.60
Dry Weight	:	495.60
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	1.3	0.3	0.3	99.7
#4	4.75	5.8	1.2	1.4	98.6
#8	2.36	4.4	0.9	2.3	97.7
#16	1.18	5.5	1.1	3.4	96.6
#30	0.60	12.2	2.5	5.9	94.1
#50	0.30	51.8	10.5	16.3	83.7
#100	0.15	78.4	15.8	32.2	67.8
#200	0.08	120.8	24.4	56.5	43.5

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 40'

Krazan Testing Laboratory

Sieve Analysis

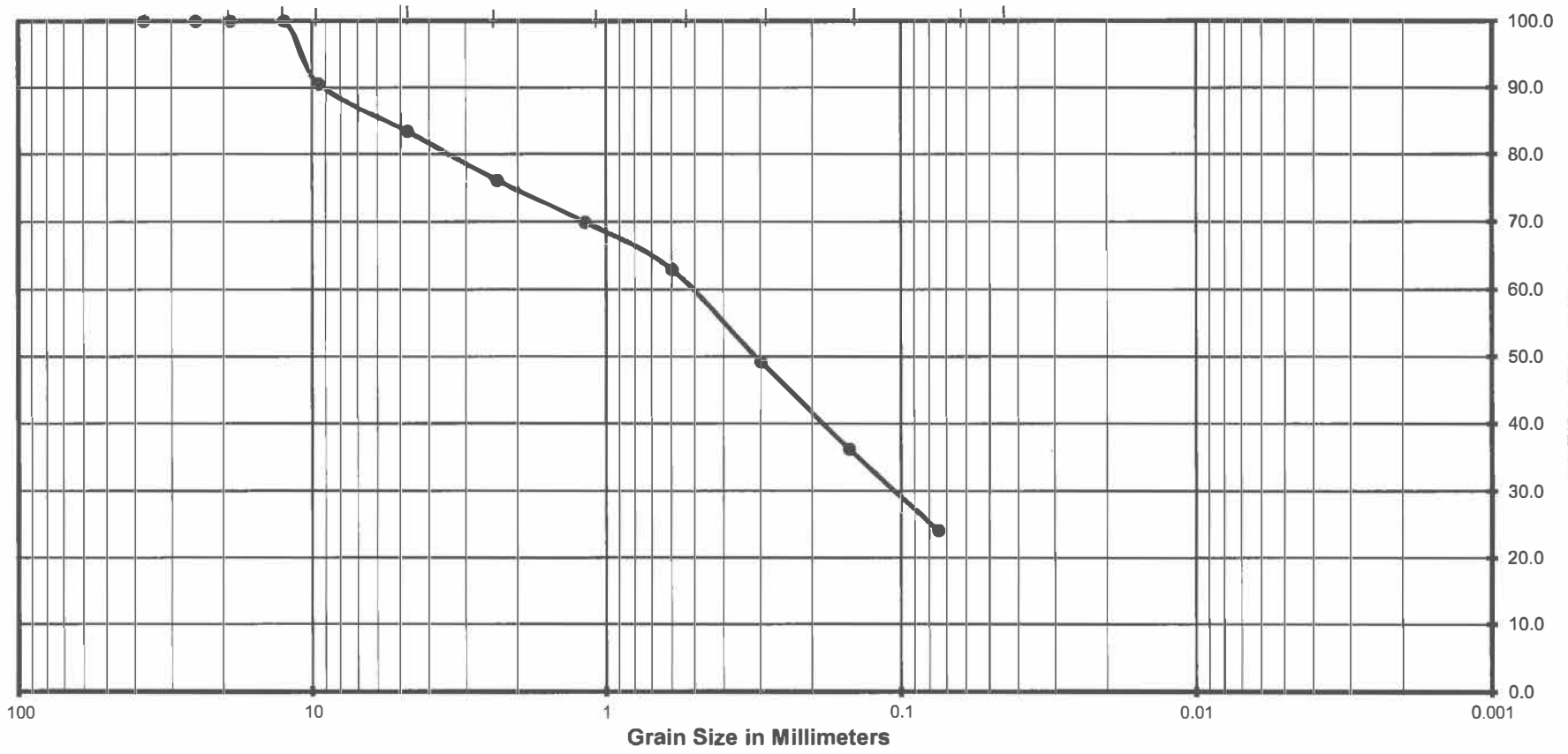
Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 1 @ 45'
Soil Classification : SP w/ gravel

Wet Weight	:	504.60
Dry Weight	:	504.60
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	47.7	9.5	9.5	90.5
#4	4.75	36.4	7.2	16.7	83.3
#8	2.36	36.4	7.2	23.9	76.1
#16	1.18	31.3	6.2	30.1	69.9
#30	0.60	35.4	7.0	37.1	62.9
#50	0.30	68.8	13.6	50.7	49.3
#100	0.15	65.8	13.0	63.8	36.2
#200	0.08	61.4	12.2	75.9	24.1

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SP w/ gravel
Sample Number	B- 1 @ 45'

Krazan Testing Laboratory

Sieve Analysis

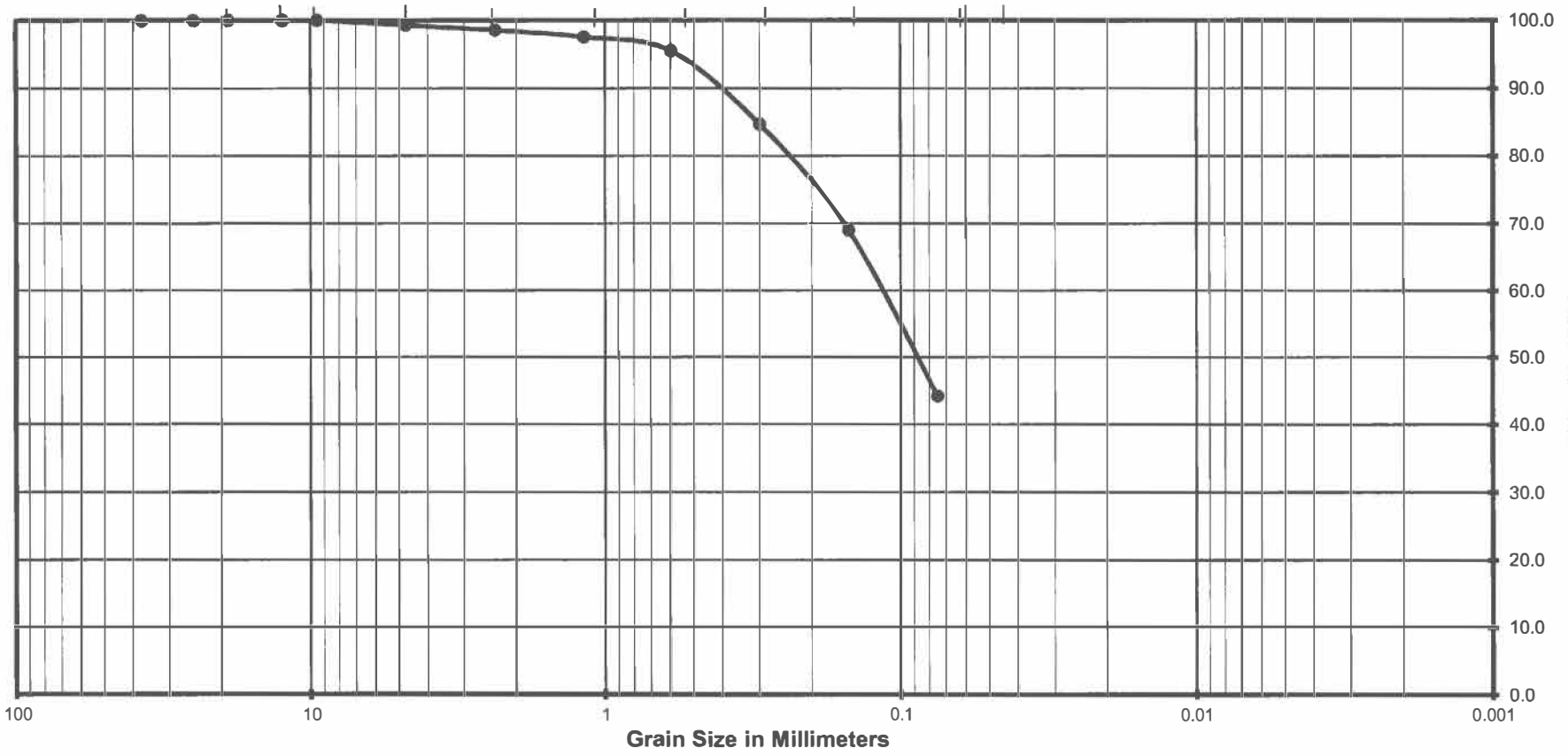
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 1 @ 50'
Soil Classification	: SM

Wet Weight	:	508.60
Dry Weight	:	508.60
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	3.7	0.7	0.7	99.3
#8	2.36	3.8	0.7	1.5	98.5
#16	1.18	5.1	1.0	2.5	97.5
#30	0.60	10.6	2.1	4.6	95.4
#50	0.30	54.6	10.7	15.3	84.7
#100	0.15	79.8	15.7	31.0	69.0
#200	0.08	126.2	24.8	55.8	44.2

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 1 @ 50'

Krazan Testing Laboratory

Sieve Analysis

Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 9 @ 5'
Soil Classification : SM

Wet Weight	:	555.10
Dry Weight	:	555.10
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	0.9	0.2	0.2	99.8
#4	4.75	0.8	0.1	0.3	99.7
#8	2.36	2.2	0.4	0.7	99.3
#16	1.18	10.4	1.9	2.6	97.4
#30	0.60	15.4	2.8	5.4	94.6
#50	0.30	56.8	10.2	15.6	84.4
#100	0.15	68.9	12.4	28.0	72.0
#200	0.08	136.4	24.6	52.6	47.4

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 9 @ 5'

Krazan Testing Laboratory

Sieve Analysis

Project Number : 11216090
Project Name : Retail Center Chatsworth
Date : 10/2/2016
Sample Location : B- 9 @ 10'
Soil Classification : SM

Wet Weight	:	573.30
Dry Weight	:	573.30
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	3.5	0.6	0.6	99.4
#4	4.75	8.3	1.4	2.1	97.9
#8	2.36	7.2	1.3	3.3	96.7
#16	1.18	8.9	1.6	4.9	95.1
#30	0.60	20.6	3.6	8.5	91.5
#50	0.30	54.8	9.6	18.0	82.0
#100	0.15	81.8	14.3	32.3	67.7
#200	0.08	139.1	24.3	56.5	43.5

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 9 @ 10'

Krazan Testing Laboratory

Sieve Analysis

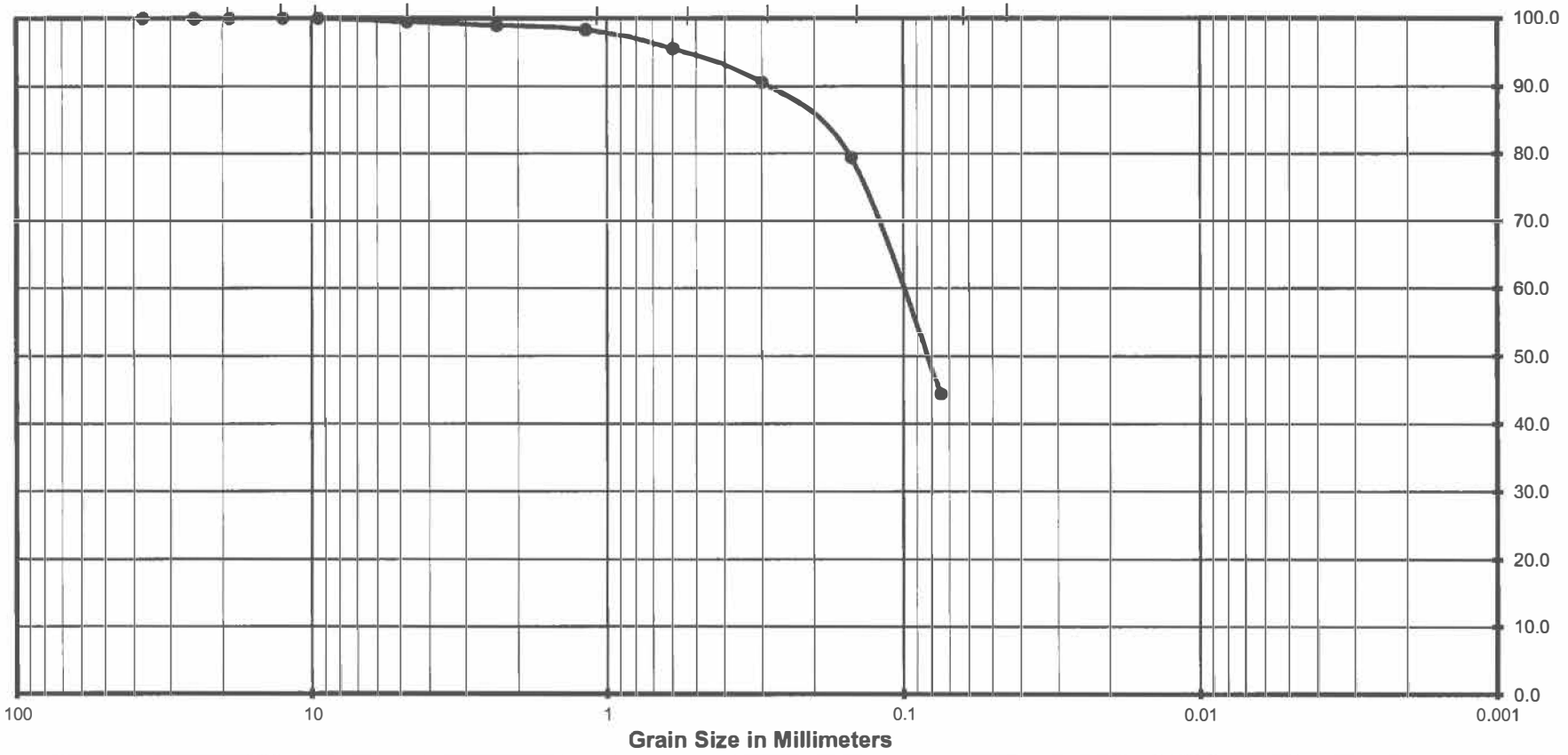
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 9 @ 15'
Soil Classification	: SM

Wet Weight	:	514.50
Dry Weight	:	514.50
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50				100.0
#4	4.75	2.7	0.5	0.5	99.5
#8	2.36	2.7	0.5	1.0	99.0
#16	1.18	3.3	0.6	1.7	98.3
#30	0.60	14.5	2.8	4.5	95.5
#50	0.30	25.2	4.9	9.4	90.6
#100	0.15	57.4	11.2	20.6	79.4
#200	0.08	180.0	35.0	55.5	44.5

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SM
Sample Number	B- 9 @ 15'

Krazan Testing Laboratory

Sieve Analysis

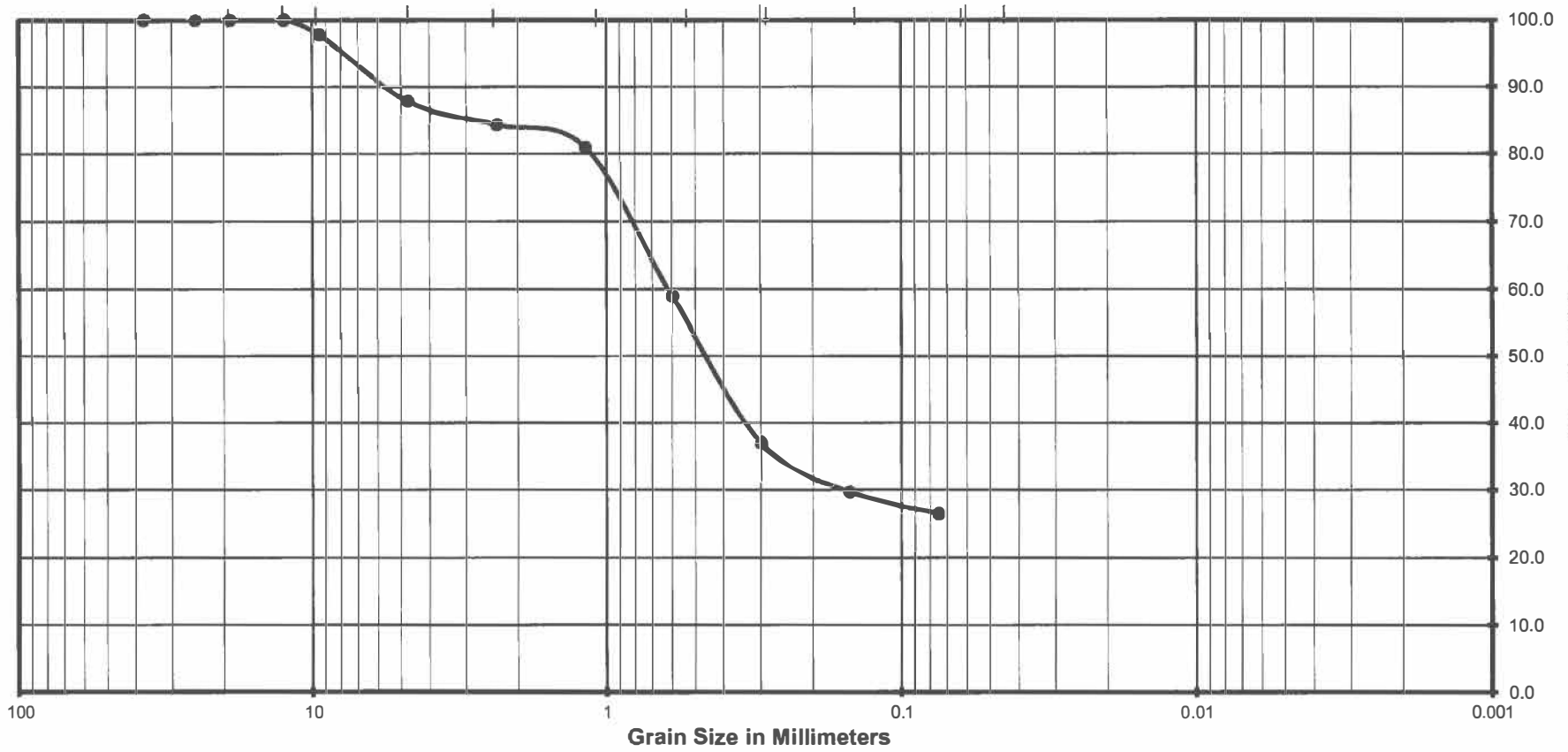
Project Number	: 11216090
Project Name	: Retail Center Chatsworth
Date	: 10/2/2016
Sample Location	: B- 9 @ 20'
Soil Classification	: SP w/ gravel

Wet Weight	:	519.70
Dry Weight	:	519.70
Moisture Content	:	0%

Sieves Size/Number	Sieve Size, mm	Retained Weight	Retained. %	Cum % Retained	Cum. % Passing.
1-1/2"	37.50				100.0
1"	25.00				100.0
3/4"	19.00				100.0
1/2"	12.50				100.0
3/8"	9.50	11.2	2.2	2.2	97.8
#4	4.75	52.0	10.0	12.2	87.8
#8	2.36	18.2	3.5	15.7	84.3
#16	1.18	17.6	3.4	19.0	81.0
#30	0.60	114.5	22.0	41.1	58.9
#50	0.30	114.0	21.9	63.0	37.0
#100	0.15	38.0	7.3	70.3	29.7
#200	0.08	16.7	3.2	73.5	26.5

Krazan Testing Laboratory

Grain Size Analysis



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

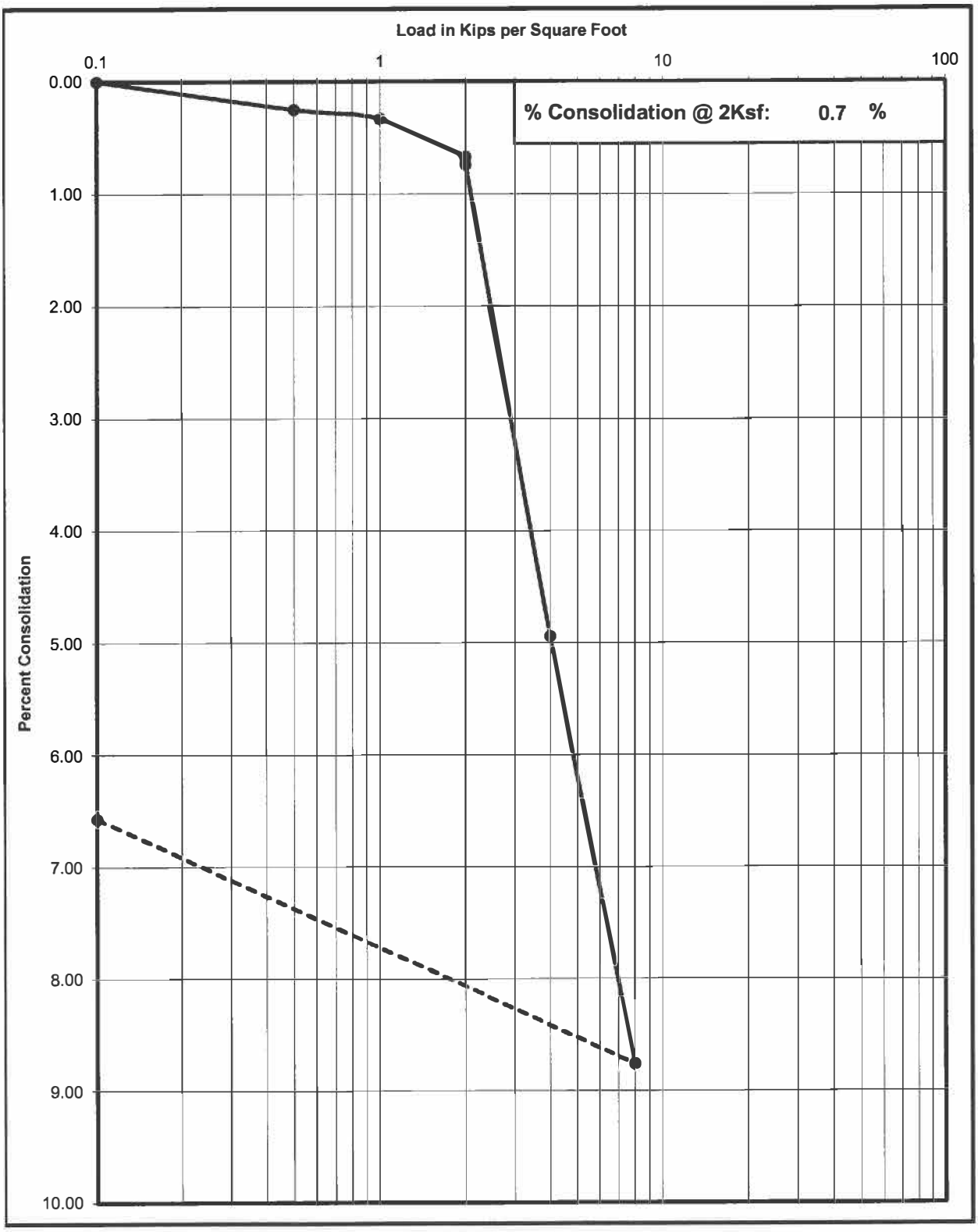
(Unified Soils Classification)

Project Name	Retail Center Chatsworth
Project Number	11216090
Soil Classification	SP w/ gravel
Sample Number	B- 9 @ 20'

Krazan Testing Laboratory

Consolidation Test

Project No	Boring No. & Depth	Date	Soil Classification
11216090	B-2 @ 5'	9/27/2016	SM



Krazan Testing Laboratory

Consolidation Test

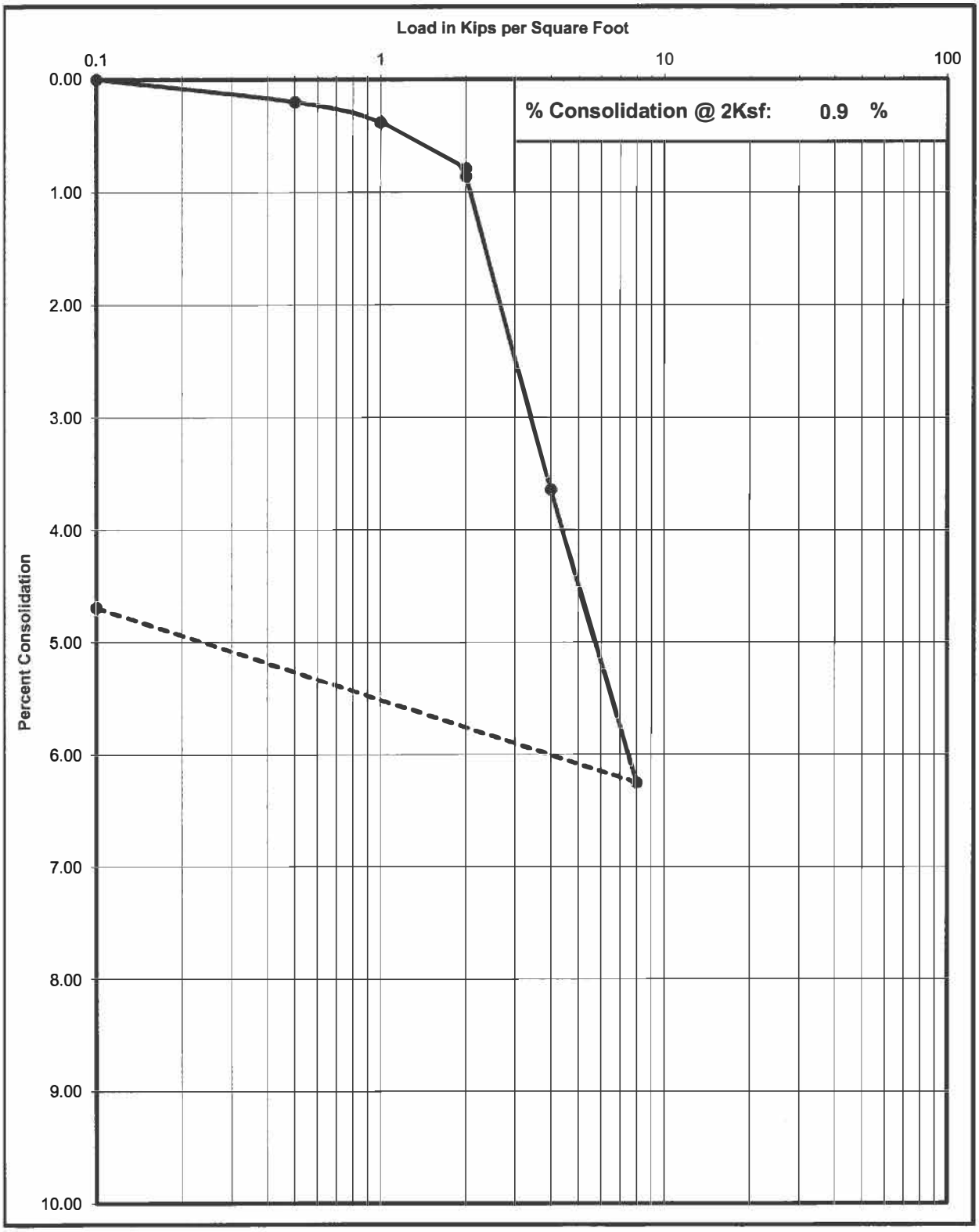
Project No	Boring No. & Depth	Date	Soil Classification
11216090	B-2 @ 10'	9/27/2016	SM



Krazan Testing Laboratory

Consolidation Test

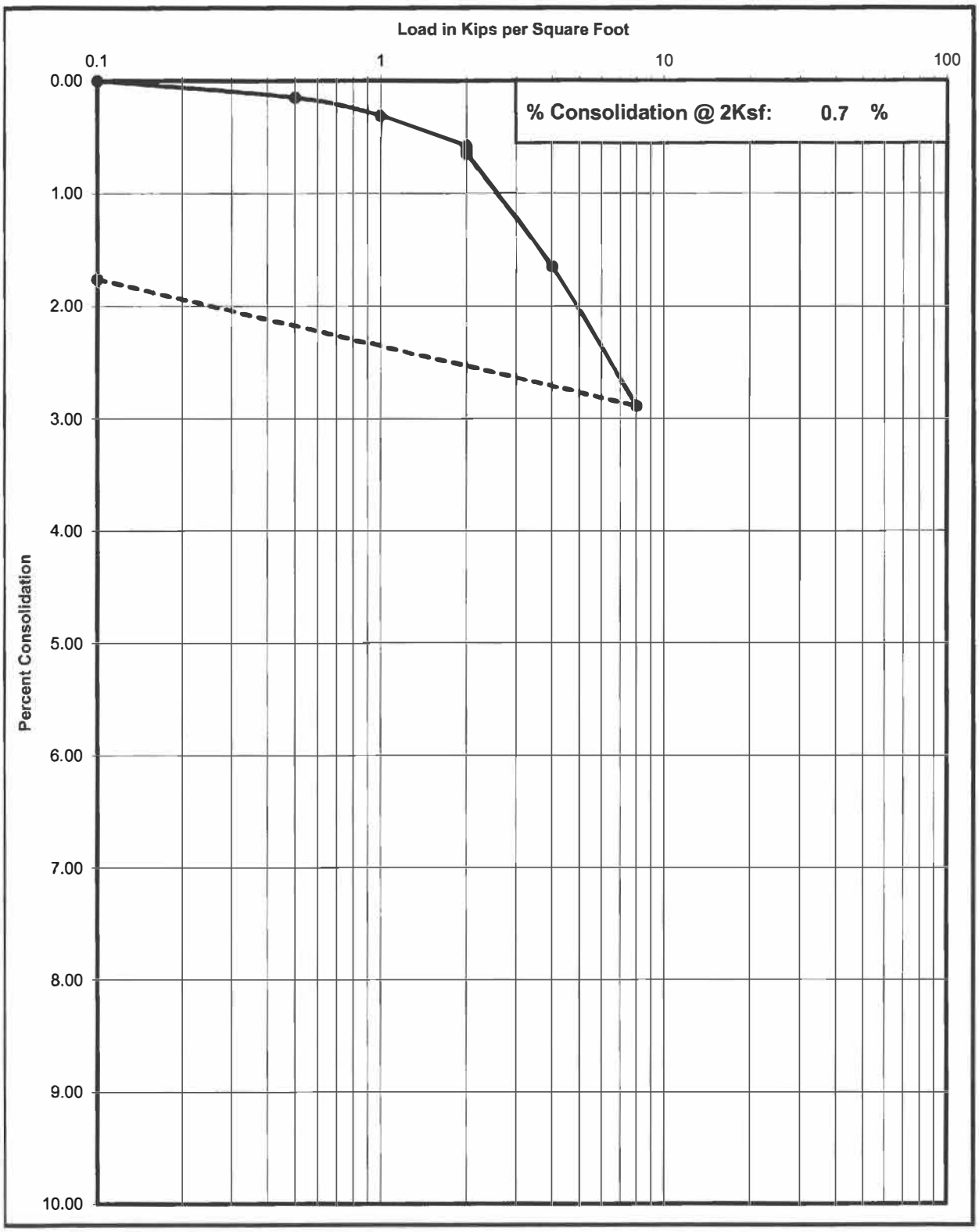
Project No	Boring No. & Depth	Date	Soil Classification
11216090	B-10 @ 5'	9/27/2016	SM



Krazan Testing Laboratory

Consolidation Test

Project No	Boring No. & Depth	Date	Soil Classification
11216090	B-10 @ 10'	9/27/2016	SM



Krazan Testing Laboratory

ANAHEIM TEST LAB, INC

3008 ORANGE AVENUE
SANTA ANA, CALIFORNIA 92707
PHONE (714) 549-7267

Krazan & Associates, Inc
1100 Olympic Drive, Ste. 103
Corona, CA 92881

DATE: 09/15/16

P.O. NO: Verbal

LAB NO: B-9749

SPECIFICATION: 417/422/643

MATERIAL: Soil

Project No: 11216090
Chatsworth

ANALYTICAL REPORT

CORROSION SERIES
SUMMARY OF DATA

	pH	SOLUBLE SULFATES per CA. 417 ppm	SOLUBLE CHLORIDES per CA. 422 ppm	MIN. RESISTIVITY per CA. 643 ohm-cm
B-1 @ 0-5'	7.4	160	238	3,500

RESPECTFULLY SUBMITTED

WES BRIDGER CHEMIST

Appendix B

General Earthwork Specifications

APPENDIX B

EARTHWORK SPECIFICATIONS

GENERAL

When the text of the report conflicts with the general specifications in this appendix, the recommendations in the report have precedence.

SCOPE OF WORK: These specifications and applicable plans pertain to and include all earthwork associated with the site rough grading, including, but not limited to, the furnishing of all labor, tools and equipment necessary for site clearing and grubbing, stripping, preparation of foundation materials for receiving fill, excavation, processing, placement and compaction of fill and backfill materials to the lines and grades shown on the project grading plans and disposal of excess materials.

PERFORMANCE: The Contractor shall be responsible for the satisfactory completion of all earthworks in accordance with the project plans and specifications. This work shall be inspected and tested by a representative of Krazan and Associates, Incorporated, hereinafter referred to as the Geotechnical Engineer and/or Testing Agency. Attainment of design grades, when achieved, shall be certified by the project Civil Engineer. Both the Geotechnical Engineer and the Civil Engineer are the Owner's representatives. If the Contractor should fail to meet the technical or design requirements embodied in this document and on the applicable plans, he shall make the necessary adjustments until all work is deemed satisfactory as determined by both the Geotechnical Engineer and the Civil Engineer. No deviation from these specifications shall be made except upon written approval of the Geotechnical Engineer, Civil Engineer, or project Architect.

No earthwork shall be performed without the physical presence or approval of the Geotechnical Engineer. The Contractor shall notify the Geotechnical Engineer at least 2 working days prior to the commencement of any aspect of the site earthwork.

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineers harmless from any and all liability, real or alleged, in connection with the performance of work on this project, except for liability arising from the sole negligence of the Owner or the Engineers.

TECHNICAL REQUIREMENTS: All compacted materials shall be densified to the minimum relative compaction of 95 percent. Soil moisture-content requirements presented in the Geotechnical Engineer's report shall also be complied with. The maximum laboratory compacted dry unit weight of each soil placed as fill shall be determined in accordance with ASTM Test Method D1557-00 (Modified Proctor). The optimum moisture-content shall also be determined in accordance with this test method. The terms "relative compaction" and "compaction" are defined as the in-place dry density of the compacted soil divided by the laboratory compacted maximum dry density as determined by ASTM Test Method D1557-00, expressed as a percentage as specified in the technical portion of the Geotechnical Engineer's report. The location and frequency of field density tests shall be as determined

by the Geotechnical Engineer. The results of these tests and compliance with these specifications shall be the basis upon which the Geotechnical Engineer will judge satisfactory completion of work.

SOILS AND FOUNDATION CONDITIONS: The Contractor is presumed to have visited the site and to have familiarized himself with existing site conditions and the contents of the data presented in the Geotechnical Engineering Investigation report.

The Contractor shall make his own interpretation of the data contained in the Geotechnical Engineering Investigation report and the Contractor shall not be relieved of liability under the Contract for any loss sustained as a result of any variance between conditions indicated by or deduced from said report and the actual conditions encountered during the progress of the work.

DUST CONTROL: The work includes dust control as required for the alleviation or prevention of any dust nuisance on or about the site or the borrow area, or off-site if caused by the Contractor's operation either during the performance of the earthwork or resulting from the conditions in which the Contractor leaves the site. The Contractor shall assume all liability, including court costs of codefendants, for all claims related to dust or wind-blown materials attributable to his work.

SITE PREPARATION

Site preparation shall consist of site clearing and grubbing, over-excavation of the building pad areas, preparation of foundation materials for receiving fill, construction of including the placement of non-expansive fill where recommended by the Geotechnical Engineer.

CLEARING AND GRUBBING: The Contractor shall accept the site in this present condition and shall demolish and/or remove from the area of designated project earthwork all structures, both surface and subsurface, trees, brush, roots, debris, organic matter and all other matter determined by the Geotechnical Engineer to be deleterious. Site stripping to remove organic materials and organic-laden soils in landscaped areas shall extend to a minimum depth of 2 inches or until all organic-laden soil with organic matter in excess of 3 percent of the soils by volume are removed. Such materials shall become the property of the Contractor and shall be removed from the site.

Tree root systems in proposed building areas should be removed to a minimum depth of 3 feet and to such an extent that would permit removal of all roots greater than 1 inch in diameter. Tree roots removed in parking areas may be limited to the upper 1½ feet of the ground surface. Backfill of tree root excavation should not be permitted until all exposed surfaces have been inspected and the Geotechnical Engineer is present for the proper control of backfill placement and compaction. Burning in areas that are to receive fill materials shall not be permitted.

Excavations required to achieve design grades, depressions, soft or pliant areas, or areas disturbed by demolition activities extending below planned finished subgrade levels should be excavated down to firm, undisturbed soil and backfilled with Engineered Fill.

EXCAVATION: Following clearing and grubbing operations, the building pad area shall be over-excavated to a depth of at least three feet below existing grades or the planned foundation bottom levels, whichever is deeper, and the remaining areas of the building and adjoining exterior concrete flatwork or pavements at the building perimeter shall be over-excavated to a depth of at least one foot below existing grade. The areas of over-excavation and recompaction beneath footings and slabs shall extend out laterally a minimum of five feet beyond the perimeter of these elements.

All excavation shall be accomplished to the tolerance normally defined by the Civil Engineer as shown on the project grading plans. All over-excavation below the grades specified shall be backfilled at the Contractor's expense and shall be compacted in accordance with the applicable **TECHNICAL REQUIREMENTS**.

SUBGRADE PREPARATION: Surfaces to receive or to support structures directly, shall be scarified to a depth of 8 inches, moisture-conditioned as necessary and compacted in accordance with the **TECHNICAL REQUIREMENTS**, above.

Loose soil areas and/or areas of disturbed soil shall be should be excavated down to firm, undisturbed soil, moisture-conditioned as necessary and backfilled with Engineered Fill. All ruts, hummocks, or other uneven surface features shall be removed by surface grading prior to placement of any fill materials. All areas that are to receive fill materials shall be approved by the Geotechnical Engineer prior to the placement of any of the fill material.

FILL AND BACKFILL MATERIAL: No material shall be moved or compacted without the presence of the Geotechnical Engineer. Material from the required site excavation may be utilized for construction of site fills, with the limitations of their use presented in the Geotechnical Engineer's report, provided the Geotechnical Engineer gives prior approval. All materials utilized for constructing site fills shall be free from vegetation, debris, rubble, trash, rocks greater than 6 inches diameter or other deleterious matter as determined by the Geotechnical Engineer, and shall comply with the requirements for non-expansive fill, aggregate base or aggregate subbase as applicable for its proposed used on the site as presented in the Geotechnical Engineer's report.

PLACEMENT, SPREADING AND COMPACTION: The placement and spreading of approved fill materials and the processing and compaction of approved fill and native materials shall be the responsibility of the Contractor. Fill materials should be placed and compacted in horizontal lifts, each not exceeding 8 inches in uncompacted thickness. Due to equipment limitations, thinner lifts may be necessary to achieve the recommended level of compaction. Compaction of fill materials by flooding, ponding, or jetting shall not be permitted unless specifically approved by local code, as well as the Geotechnical Engineer. Additional lifts should not be placed if the previous lift did not meet the required dry density (relative compaction) or if soil conditions are not stable. The compacted subgrade in pavement areas should be non-yielding when proof-rolled with a loaded ten-wheel truck, such as a water truck or dump truck, prior to pavement construction.

Both cut and fill shall be surface-compacted to the satisfaction of the Geotechnical Engineer prior to final acceptance.

SEASONAL LIMITS: No fill material shall be placed, spread, or rolled while it is frozen or thawing, or during unfavorable wet weather conditions. When the work is interrupted by heavy rains, fill operations shall not be resumed until the Geotechnical Engineer indicates that the moisture-content and density of previously placed fill is as specified.

Appendix C

General Paving Specifications

APPENDIX C

PAVEMENT SPECIFICATIONS

1. DEFINITIONS - The term "pavement" shall include asphalt concrete surfacing, untreated aggregate base, and aggregate subbase. The term "subgrade" is that portion of the area on which surfacing, base, or subbase is to be placed.

The term "Standard Specifications": hereinafter referred to is the January 1999 Standard Specifications of the State of California, Department of Transportation, and the "Materials Manual" is the Materials Manual of Testing and Control Procedures, State of California, Department of Public Works, Division of Highways. The term "relative compaction" refers to the field density expressed as a percentage of the maximum laboratory density as defined in the ASTM D1557-00.

2. SCOPE OF WORK - This portion of the work shall include all labor, materials, tools, and equipment necessary for, and reasonably incidental to the completion of the pavement shown on the plans and as herein specified, except work specifically notes as "Work Not Included."

3. PREPARATION OF THE SUBGRADE - The Contractor shall prepare the surface of the various subgrades receiving subsequent pavement courses to the lines, grades, and dimensions given on the plans. The upper 12 inches of the soil subgrade beneath the pavement section shall be compacted to a minimum relative compaction of 95 percent. The finished subgrades shall be tested and approved by the Geotechnical Engineer prior to the placement of additional pavement courses.

4. UNTREATED AGGREGATE BASE - The aggregate base material shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate base material shall conform to the requirements of Section 26 of the Standard Specifications for Class 2 material, ¾-inches maximum size. The aggregate base material shall be compacted to a minimum relative compaction of 95 percent. The aggregate base material shall be spread and compacted in accordance with Section 26 of the Standard Specifications. The aggregate base material shall be spread in layers not exceeding 6 inches and each layer of aggregate material course shall be tested and approved by the Geotechnical Engineer prior to the placement of successive layers.

5. AGGREGATE SUBBASE - The aggregate subbase shall be spread and compacted on the prepared subgrade in conformity with the lines, grades, and dimensions shown on the plans. The aggregate subbase material shall conform to the requirements of Section 25 of the Standard Specifications for Class II material. The aggregate subbase material shall be compacted to a minimum relative compaction of 95 percent, and it shall be spread and compacted in accordance with Section 25 of the Standard Specifications. Each layer of aggregate subbase shall be tested and approved by the Geotechnical Engineer prior to the placement of successive layers.

6. ASPHALT CONCRETE SURFACING - Asphalt concrete surfacing shall consist of a mixture of mineral aggregate and paving grade asphalt, mixed at a central mixing plant and spread and compacted on a prepared base in conformity with the lines, grades, and dimensions shown on the plans. The viscosity grade of the asphalt shall be AR-8000. The mineral aggregate shall be Type B, ½-inch or ¾-inch maximum, medium grading, for the wearing course and ¾-inch maximum, medium grading for the base course, and shall conform to the requirements set forth in Section 39 of the Standard Specifications. The drying, proportioning, and mixing of the materials shall conform to Section 39.

The prime coat, spreading and compacting equipment, and spreading and compacting the mixture shall conform to the applicable chapters of Section 39, with the exception that no surface course shall be placed when the atmospheric temperature is below 50 degrees F. The surfacing shall be rolled with a combination steel-wheel and pneumatic rollers, as described in Section 39-6. The surface course shall be placed with an approved self-propelled mechanical spreading and finishing machine.

7. FOG SEAL COAT - The fog seal (mixing type asphalt emulsion) shall conform to and be applied in accordance with the requirements of Section 37.

DRAFT

E. HAZARDS REPORTS

[redacted]



Stantec

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Commercial Property
8.7-Acre Property - Southwest Corner of Mason Avenue and Lassen Street
Chatsworth, California 91311

AIN(S): 2748-005-020, -021, -022, -027, -028, -029, -044, AND -048

Prepared For:
Mr. Doug Wolfley
Kaiser Foundation Health Plan, Inc.
393 Walnut Street
Pasadena, California 91188

Submitted By:
Stantec Consulting Services Inc.
290 Conejo Ridge Avenue
Thousand Oaks, California 91361

March 29, 2013
185602947

Stantec

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
8.7-Acre Property
Chatsworth, California

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- City Directories Search Records
- Sanborn® Map Search Report
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Stantec

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
8.7-Acre Property
Chatsworth, California

EXECUTIVE SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed a Phase I Environmental Site Assessment (ESA) of the approximately 8.7-Acre property located southwest of the intersection of Mason Avenue and Lassen Street in the City of Chatsworth (Los Angeles), California (the Site). The Phase I ESA was conducted in conformance with ASTM E 1527-05 on behalf of Kaiser Foundation Health Plan (Kaiser) as part of Kaiser's environmental due diligence prior to a property transaction.

We have performed the Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 of the Site. Any exceptions to, or deletions from, this practice are described in Section 6.0 DATA GAPS of this report.

This Phase I ESA has revealed evidence of recognized environmental conditions (RECs) in connection with the Site:

Current Site Use: The use of the 20504 Lassen Street Site address as an automotive repair facility associated with the use, handling, storage, and the reported disposal of regulated chemicals and hazardous wastes (unspecified aqueous solution) is a REC for the Site.

In addition, the use of the 9733 Mason Avenue Site address as a lawn mower repair shop associated with the use, handling, storage, and reported disposal of waste and mixed oil is a REC for the Site.

Former Site Use: The former use of the Site address 20504 Lassen Street as a gasoline service station from 1962 to 1970 is a historical recognized environmental condition (HREC) for the Site.

In addition, the former use of the Site address 9737 Mason Avenue as dry cleaning facility from 1964 to 2008 with the reported disposal of halogenated solvents (chloroform methyl chloride, perchloroethylene) is a HREC for the Site.

Based on the current and past use of the Site, additional assessment is recommended prior to a property transaction.

The preceding summary is intended for informational purposes only. Reading of the full body of this report is recommended.

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
8.7-Acre Property
Chatsworth, California

1.0 PROJECT METHODOLOGY

1.1 INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has completed a Phase I Environmental Site Assessment (ESA) of the approximately 8.7-acre property located southwest of the intersection of Mason Avenue and Lassen Street in the City of Chatsworth, California (the Site). The Phase I ESA was conducted in conformance with ASTM E 1527-05 on behalf of Kaiser (Kaiser) as part of Kaiser's environmental due diligence prior to a property transaction.

1.2 SCOPE

The objective of this ESA was to perform appropriate inquiry into the past ownership and uses of the Site consistent with good commercial or customary practice as outlined by the ASTM in Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-05. The purpose of this Phase I ESA was to identify, to the extent feasible, adverse environmental conditions including recognized environmental conditions (RECs) of the Site that potentially have and/or may cause an adverse environmental impact to the Site. The project conforms to standards established in 2005 by ASTM E1527-05, as it conforms to definitions and methodology of "all appropriate inquiry" as stipulated by the United States Environmental Protection Agency (EPA) in 40 CFR Part 312. The term REC is defined by ASTM E1527-05 as:

> "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum product into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws."

The term does not include *de minimis* conditions, which generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

This ESA was conducted in accordance with our proposal to Kaiser dated February 26, 2013 and Kaiser's authorization on February 26, 2013. This scope consisted of a visual reconnaissance of the Site, interviews, review of reasonably ascertainable online historical aerial photographs, Sanborn® maps, review of previous environmental reports (if available), a current Environmental Data Resources, Inc. Radius Map Report (EDR Report), and a review of the practically available pertinent records of Local, State, and Federal agencies. The scope of work did not include an assessment for historical overall environmental regulatory compliance of every facility ever operated at the Site or sampling and analyzing of environmental media. Stantec was not contracted to perform any independent evaluation of the purchase or lease price of the Site and its relationship to current fair market value. The conclusions presented in this ESA Report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 10.0.

1.3 PREVIOUS ENVIRONMENTAL WORK

No previous environmental work was identified on the Site during this ESA.

1.4 CLIENT-PROVIDED DOCUMENTS

Kaiser provided Stantec with a plot plan for the Site. This document is provided in Appendix B.

2.0 ENVIRONMENTAL ASSESSMENT FINDINGS

2.1 SITE LOCATION

The Site is comprised of an approximately 8.7-Acre property located southwest of the intersection of Mason Avenue and Lassen Street in the City of Chatsworth (Los Angeles), California (Figure 1). Photographs of the Site are presented in Appendix A.

2.2 GENERAL SITE DESCRIPTION

An on-Site public right-of-way reconnaissance was performed on March 26, 2013 by Stantec personnel. The approximately 8.7-acre Site property was developed with approximately 63,503 square-feet (sq-ft) of retail commercial and light industrial building space. The majority of this building space was single-story active retail facilities with one two-story structure located in the center of the Site property and one vacant residential structure located near the northern boundary of the Site property. Occupants observed during the on-Site public right-of-way reconnaissance are provided in tabular form in Section 2.8. The Site is shown on Figure 2.

An automotive repair facility, with hydraulic lifts identified within the facility building and chemical waste/storage identified on the west side of the facility building, was identified on the northeast corner of the Site property. The northwest portion of the Site property was used as recreational vehicle (RV) and large vehicle storage. The east side of the Site property was a parking lot. A lawnmower repair shop, with chemical waste/storage was identified on the west side of the facility building, near the southeast corner of the Site property. Dumpsters, storage containers, and vehicles were observed on southeast gated parking lot along the west side of the retail stores. No areas of distressed vegetation, staining, ponding, or debris was observed on the Site property.

2.3 ADJACENT AND SURROUNDING LAND USE

As part of Stantec's reconnaissance, visual observation of properties adjoining the Site was conducted. The observations were made from the Site or from public thoroughfares. Properties adjacent to the Site are depicted on Figure 2 and included:

- North and Northwest (across Lassen Street) – St. John Eudes School and Church located at 9925 Mason Avenue.
- Northeast (across the intersection of Lassen Street and Mason Avenue) – Single family residential.
- West (adjacent from south to north) – Penta Laboratories (medical supply store) located at 9740 Cozycroft Avenue; Aram Precision Tool & Die (machine shop) located 9758 Cozycroft Avenue; and Storage Etc. Chatsworth (self-storage facility) located 20550 Lassen Street.
- Southwest (adjacent from south to north) – A H Systems (electronic parts supplier) located at 9710 Cozycroft Avenue; J G Fasteners (machine shop) located at 9720 Cozycroft

Avenue; and Protocast-John Corporation (foundry / machine shop) located 9732 Cozycroft Avenue.

- South (adjacent) – Kiva Kitchen & Bath located 9719 Mason Avenue.
- East (across Mason Avenue from north to south) – Pacific Pride (gasoline service station) and Adrian's Auto Service & Repair located at 20450 Lassen Street; 7-Eleven convenience store located 9850 Mason Avenue; Dandy's Fast Food located at 9846 Mason Avenue; and single family residential.

Stantec personnel observed commercial / industrial land uses adjacent to the west, southwest, and east of the Site. Commercial / industrial land uses are commonly associated with use, handling, storage, and disposal of regulated chemicals and hazardous wastes in small and/or large quantities. A foundry and machine shops (located to the southwest and west of the Site), and a gasoline service station and auto repair facility (located to the east of the Site) create an environmental risk for the Site, however they were identified as a REC for Site (Section 3.4).

2.4 SITE OPERATIONS

At the time of the public right-of-way Site reconnaissance, the Site operated as an active retail shopping center and RV storage yard comprised of an approximately 8.7-acre Site property with approximately 63,503 sq-ft of building space surrounded by a parking lot.

2.5 SITE HISTORY

The object of consulting historical sources is to develop a history of the previous uses of the Site and surrounding area to evaluate if past uses may have resulted in RECs or other adverse environmental conditions in connection with the Site. During our review of multiple historical records, Stantec attempted to identify obvious uses of the Site from the present to the Site's first developed use. This research was performed to meet the following objectives: review only as many sources as are necessary to confirm a REC, and examine only those records that are reasonably ascertainable and useful.

During completion of this ESA, Stantec attempted to obtain information from the following historical document sources: previous environmental reports as listed in Section 1.3, local fire department records, building department permit and planning records, local environmental agency records, tax assessor records, personal interviews, and online internet searches.

2.5.1 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Year	Document	Notes on Observations
1928	Aerial Photograph (Fairchild) Scale 1" = 500'	The Site appears developed with a residential structure located on the northeast corner of the Site surrounded by agricultural row crops and a few scattered residential structures.
1938	Aerial Photograph (Laval) Scale 1" = 500'	The Site land use has remained relatively unchanged since the previous photograph.
1947	Aerial Photograph (Tubis) Scale 1" = 500'	The Site land use has remained relatively unchanged since the previous photograph.
1956	Aerial Photograph (Fairchild) Scale 1" = 500'	The Site land use has remained relatively unchanged since the previous photograph with the exception of additional structures to the east and west of the existing residential structure.
1965	Aerial Photograph (Fairchild) Scale 1" = 500'	The Site buildings including the properties located to the east of the Site (across Mason Avenue) appear in the current configuration.
1976	Aerial Photograph (Teledyne) Scale 1" = 500'	The land use of the Site and the property remained relatively unchanged since the previous photograph with the exception of several vehicles (RVs) parked on the northwest corner of the Site property. Additional structures appear on properties adjacent to the north, south, and west of the Site.
1989	Aerial Photograph (USGS) Scale 1" = 500'	The Site and surrounding properties appear in the current configuration.
1994-2010	Aerial Photograph (EDR) Scale 1" = 500'	The Site and surrounding properties appear in the current configuration.

2.5.2 Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide prior land use history and assist in assessing whether there may be potential environmental contamination on or near the Site. These maps, which have been periodically updated since the late 19th Century, often provide valuable insight into historical Site uses.

Stantec contracted with EDR to provide a search for copies of historical fire insurance maps covering the subject and immediately adjacent properties. Stantec reviewed available Certified Sanborn® fire insurance maps did not include maps covering the Site vicinity.

The Sanborn® Map Search Report is presented in Appendix B.

2.5.3 City Directories

Stantec contracted with EDR to research available reverse city directories for the Site. EDR searched available city directory collections covering the Site area for the years 1920 through 2012 in approximately five year intervals, and within a distance of approximately 660 feet from

the Site. The following Site addresses are summarized based on review of the city directory listings:

20504 LASSEN ST

- (2004) LA S AUTO REPAIR
- (1995) S & Y Motors
- (1991) S& Y Motors
- (1980) LEATHER TRAP
- (1970) FERNANDO AVERILL CHEVRON STN, CHEVRON SERVICE STATIONS CHATSWORTH FERNANDO AVERILL CHEVRON STN, CHEVRON SERVICE STATIONS CHATSWORTH
- (1965) LARRY CRAIG CHEVRON SORV
- (1962) VALLENTYNE EDW T CHEVRON SERV STNS, CHEVRON SERV STATIONS

20524 LASSEN ST

- (2004) OLAPADAKIS Theodore
- (1995) Watkins Phillip
- (1985) Watkins Phillip, Watkins Products
- (1980) LYLE J, LECHERT JOHN
- (1975) Lyle Joyce
- (1965) NEWMAN J
- (1956) NEWMAN JOHN
- (1950) WELLS JULIA R, WELLS JULIA R

9733 MASON AVE

- (2012) GRANADA LAWN MOWER SHOP
- (2007) GRANADA LAWNMOWER
- (2004) GRANADA LAWNMOWER, LEEWOOYOUNG
- (1995) Granada Lawnmower
- (1991) Granada Lawnmower
- (1980) WEST VALLEY LAWNMOWER SHOP
- (1970) WEST VALLEY LAWNMOWER SHOP, PRACTICAL LAWN SERVICE, WEST VALLEY LAWNMOWER SHOP, PRACTICAL LAWN SERVICE, CULVER S LAWN & GARDEN SERVICE, CULVER S LAWN & GARDEN SERVICE
- (1975) West Valley Lawnmower Shop

9735 MASON AVE

- (2007) ALL ABOUT FLOORS DESIGN CENTER, FLOOR WORKS
- (2004) no info
- (1991) Halaby&Co
- (1985) Halaby & Co
- (1980) HALABY & CO
- (1975) Gross Ken Enterprises

9737 MASON AVE

- (2007) NORGE CLEANERS OF CHATSWORTH, MELS NORGE VILLAGE

- (2004) NORGECLEANERS OF MELSNORGEVLG, CHATSWORTH
- (1995) Mels Norge Village Cleaners & Laundromat, M Norge Cleaners Of Chatsworth, Norge Cleaners & Laundry
- (1991) Mels Norge Village Cleaners & Laundromat, MELS NORTH BRAND SERVICE 110 DN, Brand Cl Gin, Norge Cleaners Of Chatsworth
- (1980) MELS NORGE VILLAGE CLEANERS & LAUNDROMAT, NORGE EQUIPPED LAUNDRY & CLEANING, VILLAGE STORES
- (1975) Chatsworth
- (1970) MEL S NORGE VILLAGE LAUNDRY AND CLEANERS, MEL S NORGE VILLAGE LAUNDRY AND CLEANERS

9739 MASON AVE
- (2007) LASAMPO HOME IMPROVEMENT
- (2004) LASAMPO, CONDITIONING,WAISHEATING&AIR

9741 MASON AVE
- (2012) MICRO WEST TECH INC
- (2007) MICRO WEST TECH INC
- (2004) no info
- (1985) RONS RIB CAGE, Royalty Restaurant
- (1980) ROYALTY RESTAURANT, ROYALE CATERING
- (1975) Plaques A Plenty
- (1970) JUST SEW WITH ALICE YARDGE, JUST SEW WITH ALICE YARDGE P

9745 MASON AVE
- (2007) UNITED MARTIAL ARTS ACADEMY
- (2004) ACADEMY, UNITD MARTIAL ARTS, COMPUTER, MICRO WEST
- (1995) Micro West Computers
- (1991) Micro West Computers & Office Machines In Chatsworth
- (1985) Christys Sportswear, Chritton O G
- (1980) CHRISTYS SPORTSWEAR
- (1975) Christy's Sportswear

9749 MASON AVE
- (2004) no info
- (1985) CHATS W ORTH PRIN TIN G
- (1980) CHATSWORTH PRINTING
- (1975) CHATSWORTH PRINTING
- (1970) OUELLET S CERAMIC STUDIO, OUELLET S CERAMIC STUDIO
- (1965) DE COES - FURNITURE

9751 MASON AVE
- (2004) no info
- (1995) Crystal Sports Of California
- (1991) Crystal Of California
- (1985) A & G Electric

- (1980) A & G ELECTRIC
- (1975) The In Price

9753 MASON AVE
- (2012) FERRIS OPTICAL, KANGHAI HEALTH CENTER
- (2007) FERRIS OPTICAL
- (2004) FERRIS OPTICAL
- (1995) Estetica Hair Design
- (1991) Great Cuts 22125 Sherman Wy C Pk, Great Dane Club Of Calif, Estetica Hair Design, Great Cut Hair Salon The Esteves Frances, Esteva Liliana Sepulveda
- (1980) GREAT CUT HAIR SALON THE, THE GREAT CUT HAIR SALON
- (1975) J Cs Beauty Salon
- (1970) GERRY S BEAUTY SALON CHATSWORTH, GERRY S BEAUTY SALON CHATSWORTH

9755 MASON
- (2012) EL GALLERO SPORTS BAR
- (2004) TAMMY S BAR & GRILL
- (1995) Thirsty Eye The
- (1991) Thirsty Eye The
- (1985) Thirsty Eye The
- (1980) THIRSTY EYE THE
- (1975) Barrel Inn
- (1970) THIRSTY EYE, THIRSTY EYE

9757 MASON AVE
- (1975) Chatsworth Offices, Harrison Jack ins, Chatsworth Offices, Drop Chuck J ins agt

9759 MASON AVE
- (2012) CALIFORNIA DANCE ACADEMY
- (2007) RZBC PILATES
- (2007) ROZANN ZIMMERMANN BALLET CENTER
- (2004) ROZANN ZIMMERMAN, FRANTZ PATRICK, BALLET CENTER
- (1995) Frantz Patrick, Rozann Zimmerman Ballet Center
- (1991) Ballet Center Rozann Zimmerman, Zimmerman Scott, Zimmerman Rozann Ballet Center
- (1980) ZIMMERMAN ROZANN BALLET CENTER, SHEILA ROZAUN BALLET CANTER, ROZANN-ZIMMERMAN BALLET CENTER, BALLET CENTER ROZANN-ZIMMERMAN
- (1975) Hartwick John R vetnrian, Chatsworth Pet Hospital, Chatsworth Animal Hospital
- (1975) Sheila Rozann Ballet Center, Zimmerman Rozann Ballet Center. Ballet Center Rozann Zimmerman, Rozann Zimmerman Ballet Center
- (1970) BALLET CENTER SHEILA ROZANN, BALLET CENTER SHEILA ROZANN

9763 MASON AVE
- (2012) CHATSWORTH ANIMAL HOSPITAL

- (2007) HARTWICK JOHN R DVM, CHATSWORTH ANIMAL HOSPITAL
- (2004) CHATSWORTH ANIMAL HOSPITAL, HARTWICKJOHNR
- (1995) Chatsworth Pet Hospital, Chatsworth Animal Hospital, Hartwickdohn RDVM
- (1991) Chatsworth Animal Hospital, Chatsworth Pet Hospital, Hartwick John RDVM, Hartwick Ray
- (1985) CHATS W ORTH AN IMAL HOS PITAL, Chatsworth Auto Electric & Air Conditioning, Chatsworth Pet Hospital, HARTW ICK JOHN R DVM, Aufderheide William DVM, Hartwick Ray
- (1980) CHATSWORTH ANIMAL HOSPITAL, CHATSWORTH PET HOSPITAL
- (1980) HARTWICK JOHN R VETNRIAN
- (1970) HENDERSON NORMAN C DVM, HARTWICK JOHN R VETNRIAN, CHATSWORTH PET HOSPITAL, CHATSWORTH ANIMAL HOSPITAL, HENDERSON NORMAN C DVM, HARTWICK JOHN R VETNRIAN, CHATSWORTH PET HOSPITAL, CHATSWORTH ANIMAL HOSPITAL
- (1965) BCHATSWORTH DENTAL LAB, PFINEMAN MARVIN, CHATSWMRTH MEDICAL CUKI, NCTTATSWORTH OPTOKETRIC GB

9765 MASON AVE

- (2012) LAUREENS UNIQUE ANTIQUES
- (2007) LAUREENS UNIQUE ANTIQUES
- (2004) no info
- (1995) Garment Graphics
- (1991) Garment Graphics
- (1985) Garment Graphics
- (1980) B J S MUSIC CHATSWORTH, ARREDONDO JOSE O ARRCO ELECTRONICS, ARRCO ELECTRONICS
- (1975) Breeders Choice Distributor
- (1970) MICHAEL S ART CENTER, MICHAEL S ART CENTER
- (1965) WMOREYS SHOES
- (1975) Kennel Club Pet Food

9805 MASON AVE

- (2012) KINGS TAE KWON DO, TOW 4 LESS
- (2004) MRS NOAHS ARK
- (1995) Mix Charles Carpets Inc, Mix Charles carpts, Charles Mix Carpets Inc
- (1991) Mix Holly, Mix Charles Carpets Inc, Mix Charles carpts, CHARLE S MUS IC CE N TE R, Charles Mix Carpets Inc
- (1985) Mix Charles carpts, Mix Charles Carpets Inc
- (1980) SECARD POOLS
- (1965) CORNET STORES
- (1962) CORNET STORES

9823 MASON AVE

- (2004) no info
- (1995) AT Disk Co, Alsafa Internati Co, Bonus Marketing & Sales Co, C G Industrial Supplies, CATE RE D GRAPHICS, E CO Solutions, Horter P, t lorticultural Associates

Inc, Hdrticultural Designs, hrirticultural Publishing, La Gilbert, L A Hair, Picture Perfect Unlimited, Repairs Plus, (1991) CATE RE D GRAPHICS, Dorny Health Center, Dorny Walter, Dorobek F, Dorobek GF, GRE YTS OUN DS, Horticultural Associates Inc, Horticultural Publishing, Natures Sunshine Herbs, P &PBaseball Cards, Picture Perfect Unlimited, RACKCesssories, 1991 Dorny Walter & Veda, Acomr Medical Productsinc, AME RICAN W ORLD TRAVE L, American Worldwide Messenger Courier, American Wrap, Bonus Marketing & Sales Co, Bonus Nancy, Bonisflum & Associates, Borisf Blum & Associates, C G Industrial Supplies

- (1990) CENTER FOR PROFESSIONAL, DIAGNOSTIC MANAGEMENT INC, CHATSWORTH
- (1985) AME RICAN W ORLD TRAVE L, CATE RE D GRAPHICS, Caterers The Chats, Crystal Of California, Dorny Health Center, Dorny Wa lter, Eagles Graphics & Printing, Eagles Group The Horticultural Publishing, Printers Parts Stores, Dorny Waiter & Veda,
- (1980) APPROVED SYSTEMS, AUTO OWNERS SERVICE, CATERED GRAPHICS, DURNY HEALTH CENTER, FULL TRIM FINISH CO, HORTICULTURAL ASSOCIATES INC, HORTICULTURAL PUBLISHING, INSTITUTE OF ADVANCED RESOURCE MANAGEMENT, SANTANA TIES OF CALIF, SHAKLEE DISTRIBUTORS CHATSWORTH, TK JANITORIAL, DYNACTION RESOURECES CHATSWORTH, NATURES SUNSHINE HERBS CHATSWORTH
- (1980) ROXIE ENTERPRISES INC CHATSWORTH, DORNY WALTER
- (1975) Dantona Jas R
- (1975) Brodys Office Services, Dorny Walter, Santana Ties Of Calif, Dorny Walter & Veda

9825 MASON AVE

- (2012) HERCULES REALTY
- (2004) MANAGEMENT, HERCULESPROPERTY, HERCULES PROPERTY, HERCULES REALTY MANAGEMENT
- (1985) Bloomers Of Calif Inc
- (1980) HERCULES DISTRIBUTING
- (1975) QUEST ADVERTISING & ASSOCIATES INC Pacific
- (1975) Puch Distributing Corp, Coldren Norman H Exterminators Inc, Hercules Distributing

9827 MASON AVE

- (1995) H. Hercules Distributing, Hercules Realty
- (1991) Hercules Business & Property Management, Hercules Distributing
- (1985) Hercules Distributinp
- (1975) Shawnee Press Inc

9829 MASON AVE

- (2004) no info
- (1995) Santana Tereso I, Santana Ties Of Calif
- (1991) Santana Ties Of Calif
- (1985) Santana Ties Of Calif

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
8.7-Acre Property
Chatsworth, California

9831 MASON AVE
- (2004) no info
- (1985) Garrett Freight Lines Inc
- (1980) MICHAELS & ASSOCIATES, LAB CHEMICAL

9835 MASON AVE
- (2012) AMAZING THAI BAR & GRILL
- (2004) AMAZINGTHAI BAR GRILL
- (1995) Wooden Shoe The
- (1991) Woodert A & D, Wooden Shoe The
- (1985) Wooden Shoe The
- (1975) Wooden Shoe The

9839 MASON AVE
- (2004) no info
- (1991) Sang Lee College Of Tae Kwon Do martial arts
- (1975) Royale Catering
- (1965) HWULLS EAKERY

9841 MASON AVE
- (2012) STICK IT GRAPHICS, HOMEWORK BOUND INC
- (2004) ECONOMY PRINTING, STICKITGRAPHICS, THE CELL SHOP
- (1991) Agency Rent A Car
- (1985) Hector Rooter Service, Artistic Video, Artistic Tile Shoppe, Artistic Shoe Repair
- (1970) B J S MUSIC, B J S MUSIC
- (1965) B JS MUSIC
- (1975) B Js Music
- (1962) STERN CLARA FASHIONS, CLARA STERN FASHIONS

9843 MASON AVE
- (2004) ABC VIDEO & V, ABC VIDEO VIV
- (1995) ABC Video & VTV, ABC Video & VTV
- (1991) ABC Video&VTV, ABC Video&VTV
- (1980) VALLEY WEST BARBERS & STYLISTS
- (1975) Vinces Barber Shop styling

9845 MASON AVE
- (2004) no info
- (1995) Thai Combo Restaurant
- (1985) Zee Charbroiler
- (1980) NAIL BIZ THE
- (1975) Chatsworth

9849 MASON AVE
- (2004) HAIR BY ESTHER, NAILS BY LINDA, PROTOUCH BEAUTY, SALON, SEMENDYAYEVA, MARINA, MARINA

- (1995) Polinski Ada manicurst
- (1991) Shear Dori, Shear Design, Polinski Ada manicurst
- (1985) Real Hair Design
- (1980) HAIR GALLERY THE, THE HAIR GALLERY
- (1970) HAIR GALLERY THE, THE HAIR GALLERY, THE HAIR GALLERY, HAIR GALLERY THE
- (1975) Hair Gallery The, The Hair Gallery
- (1962) COLORAMA BEAUTY SALON

9851 MASON AVE
- (2012) EXCEL RENTACAR INC, TRENDY CREATIONS INC
- (2004) EXCEL RENT A CAR
- (1995) Appliance Parts Mart, B & E Appliance Service, B & W Appliance Service Inc
- (1995) KBS Appliance Service & Parts
- (1980) PIZZERIA ANGELO S
- (1975) Pizza Warehouse
- (1970) BOB S PIZZA, BOB S PIZZA

9857 MASON AVE
- (2012) DOROSE LIQUORS, EMERGENCY LOCKSMITH
- (2004) DOROSEUQUORS, DOROSEUQUORS
- (1995) Dorose Liquors
- (1991) Dorose Liquors
- (1985) Dorose Liquors
- (1980) DOROSE LIQUORS
- (1975) Dorose Liquors
- (1970) DOROSE LIQUORS, DOROSE LIQUORS
- (1962) DOROSE LIQUORS

9859 MASON AVE
- (2012) SWEET BERRY DONUTS
- (2004) REPTILE DEPOT
- (1995) Classic Window & Door
- (1991) Classic Window & Door

The former use of the Site address 20504 Lassen Street as a gasoline service station from 1962 to 1970 is an HREC for the Site, and the existing use of the this address as an auto repair facility is a REC for the Site.

The existing use of the Site address 9733 Mason Avenue as a lawnmower repair shop from 1975 to 2013 is a REC for the Site.

The former use of the Site address 9737 Mason Avenue as a dry cleaner from 1970 to 2007 is an HREC for the Site.

2.5.4 Interviews

Interviews of persons who are knowledgeable about the Site were conducted during completion of this ESA. The objective of the interviews was to obtain information indicating the potential for RECs in connection with the Site. According to ASTM E1527-05 Section 3.2.43, interviews address questions to be asked of past and present owners, operators, and occupants of the Site and questions to be asked of local government officials. The results of these interviews are discussed in the text that follows.

Site Owner - According to ASTM E1527-05 Section 3.2.59, the owner is defined generally as the fee owner of record of the Site. Stantec personnel were not provided with contact information and not able to interview the owner for the property. This was identified as a Data Gap in Section 6.0 of this report.

Key Site Manager – According to ASTM E1527-05 Section 3.2.44, the key Site manager is defined as the person identified by the owner or operator of the Site as having good knowledge of the uses and physical characteristics of the Site. Stantec personnel were not provided with contact information and not able to interview the owner or the key Site manager. This was identified as a Data Gap in Section 6.0 of this report.

Site Occupants - According to ASTM E1527-05 Section 3.2.56, occupants are defined as those tenants, subtenants, or other persons or entities using the Site or a portion of the Site. Stantec personnel were not provided with contact information and not able to interview the owner or the Site occupants.

Interviews With Local Government Officials - According to ASTM E1527-05 Section 3.2.47, local government agencies are defined as those agencies of municipal or county government having jurisdiction over the property. Municipal and county government agencies include but are not limited to cities, parishes, townships, and similar entities. Information obtained from local government officials is provided in Section 4.0.

2.5.5 Tax Assessor Records and Property Ownership Information

According to Los Angeles County Assessor's records obtained online at http://maps.assessor.lacounty.gov/mapping/viewer.asp, the Site addresses of 9733 through 9745, 9749 through 9753, 9805, 9823 through 9831, and 9835 through 9857 Mason Avenue; and 20504 and 20524 Lassen Street consist of eight parcels is comprised of a 8.42-acres and are identified as Assessors Identification Number (AIN): 2748-005-020, 021, 022, 027, 028, 029, 044, and 048 within the City of Chatsworth (Los Angeles). According to the assessor records, the following information is associated with the Site AINs:

AIN	Address	Property Information
2748-005-020	9835 Mason Avenue	26,720 sq-ft commercial / industrial property with one 11,820 sq-ft building constructed in 1960.
2748-005-021	9825 Mason Avenue	2.44-acre commercial / industrial property with one 20,045 sq-ft building constructed in 1960.
2748-005-022	9805 Mason Avenue	20,150 sq-ft commercial / Industrial property with

		one 6,000 sq-ft building constructed in 1961.
2748-005-027	9755 Mason Avenue	30,055 sq-ft commercial / industrial property with one 11,000 sq-ft building constructed in 1961.
2748-005-028	9749 Mason Avenue	30,055 sq-ft commercial / industrial property with one 3,600 sq-ft building constructed in 1961.
2748-005-029	9733 Mason Avenue	30,055 sq-ft commercial / industrial property with one 8,400 sq-ft building constructed in 1961.
2748-005-044	20504 Lassen Street	16530 sq-ft commercial / industrial property with one 1,032 sq-ft building constructed in 1960.
2748-005-048	20524 Lassen Street	2.19-acre commercial / industrial property with one 1,606 sq-ft building constructed in 1923.

Research and assembly of a Chain-Of-Title Report were not included in the scope of work for this ESA, and Stantec personnel were not provided with copies of a title report, property appraisal, or similar documents that may provide information on environmental liens, deed restrictions, activity and use limitations (AULs), or other encumbrances.

2.5.6 Historical Topographic Maps

Historical topographic maps were obtained from EDR and were reviewed to identify past Site usage and areas of potential environmental concern. Copies of the topographic maps reviewed are located in Appendix B. The following table summarizes the maps reviewed and our observations. No environmental concerns were noted during our review of the topographic maps.

Year	Document	Notes On Observations
1903	Calabasas 15 Minute Topographic Map Scale 1:62,500	The Site is not depicted with land use information.
1903	Camulos 15 Minute Topographic Map Scale 1:125,000	The Site is not depicted with land use information.
1903	Adjoining Quad: Santa Susana 15 Minute Topographic Map Scale 1:62,500	The Site is not depicted with land use information.
1910	Southern CA Sheet 3 6 Minute Topographic Map Scale 1:24,000	The Site is not depicted with land use information.
1928	Zelzah 6 Minute Topographic Map Scale 1:24,000	The Site is depicted with a residential structure, surrounded by residential structures, with Lassen Street located to the north and Mason Avenue located to the east of the Site.
1941	Zelzah 6 Minute Topographic Map Scale 1:24,000	No significant changes to the Site since the 1928 Topographic Map.

Year	Document	Notes On Observations
1947	Calabasas 15 Minute Topographic Map Scale 1:50,000	The Site is depicted with a residential structure surrounded by agricultural land uses.
1947	Adjoining Quad: Santa Susana 15 Minute Topographic Map Scale 1:50,000	The Site is depicted with a residential structure surrounded by agricultural land uses.
1952	Canoga Park 7.5 Minute Topographic Map Scale 1:24,000	No significant changes to the Site since the 1947 topographic Map.
1952	Adjoining Quad: Oat Mountain 7.5 Minute Topographic Map Scale 1:24,000	No significant changes to the Site since the 1947 topographic Map.
1967	Canoga Park 7.5 Minute Topographic Map Scale 1:24,000	The Site is depicted with the existing buildings in the current configuration in an area zoned for commercial uses.
1969	Adjoining Quad: Oat Mountain 7.5 Minute Topographic Map Scale 1:24,000	Only a small part of the northern portion of the Site is depicted with no significant changes to the Site since the 1967 topographic Map.

2.6 PHYSIOGRAPHIC FEATURES

Stantec's understanding of subsurface conditions in the vicinity of the Site is based on experience in the area and review of available documentation regarding regional and local subsurface conditions.

2.6.1 Regional Topography

The USGS 7.5-Minute Topographic Map of Canoga Park, California Quadrangle (scale 1:24,000) and the Physical Setting Source Addendum included in the EDR Radius Map Report were reviewed to identify local and regional physiographic features in the vicinity of the Site (Figure 1). Based on our review of these information sources, the Site is located at an elevation of approximately 913 feet above mean sea level (ft msl). Based on the review of the topographic map, the general topographic gradient in the property's vicinity is to the southeast.

2.6.2 Surface Water and Flood Zone

Surface Water: Browns Canyon Wash is located approximately one mile west of the Site.

Flood Zone: According to the Physical Setting summary portion of the EDR report, the Site is not located in a 100-year flood plain. However, the northern portion of the Site is located within a 500-year flood plain zone (along the Lassen Street).

2.6.3 Regional and Site Geology

The Site is within the Transverse Ranges Geomorphic Province of California, within the Los Angeles Basin. The Site area is underlain by Tertiary sedimentary rocks that include the lower Pleistocene Saugus Formation, and Pleistocene and Holocene age alluvium. Holocene age alluvium consists primarily of coarse-grained unsorted gravel and sand deposited by coalescing alluvial fans emanating from the surrounding highlands. The Saugus Formation is composed of continental and shallow marines (Sunshine Ranch Member) deposits of conglomerates, sands, silts, and clays, with permeability less than that of the Pleistocene alluvium (CDCDMG, 1986).

Stantec acquired a report for a nearby property from the State Water Resources Control Board (SWRCB) GeoTracker database to identify general local subsurface conditions. According to the Site Assessment Report for the Former Exxonmobil Service Station #18-H8Q completed by Holguin, Fahan & Associates, Inc. (FHA), for a nearby property to the north of the Site (approximately 3,000 feet) located at 20505 Devonshire Street, previous investigations indicated alluvium in the subject area consists of gravelly sand, sand, silty sand, and sandy silt from the surface to 175 feet below ground surface (bgs)(FHA, 2007).

2.6.4 Regional and Site Hydrogeology

According to DWR's Bulletin 118, the Site lies in the San Fernando Valley Groundwater Basin of the South Coast Hydrologic Region. Stantec personnel reviewed California's Groundwater Bulletin 118 dated February 27, 2004 for the San Fernando Valley Groundwater Basin, produced by California Department of Water Resources (DWR) obtained online at www.water.ca.gov/groundwater/bulletin118/gwbasin_maps_descriptions.cfm. According to the DWR's Bulletin 118, the San Fernando Valley Groundwater Basin includes the water-bearing sediments beneath the San Fernando Valley, Tujunga Valley, Browns Canyon, and the alluvial areas surrounding the Verdugo Mountains near La Crescenta and Eagle Rock. The basin is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by Simi Hills. The valley is drained by the Los Angeles River and its tributaries (DWR, 2004).

According to the report from Section 2.6.3, Stantec acquired from the State Water Resources Control Board (SWRCB) GeoTracker database, in the first quarter of 2007, the depth to groundwater beneath the subject area ranged from 149.25 to 153.80 35 feet bgs (measured from the top of the well casing), with a groundwater flow direction to the east with a horizontal gradient of 0.0006 feet per foot (FHA, 2007).

2.7 SITE RECONNAISSANCE

Stantec performed a public right-of-way reconnaissance of the Site on March 26, 2013. Figure 2 provides land use information for the Site and adjoining properties and areas of potential environmental concern. The Site visit focused on observation of current conditions and indications of past uses and conditions of the Site that may indicate the likelihood of RECs. The Site visit was conducted on foot and visual and/or physical observations from the reconnaissance are noted in the following sections.

Stantec personnel were able to access all portions of the Site during the Site visit. Weather conditions during the visit to the Site were clear and sunny. There were no weather related property access restrictions encountered during the reconnaissance visit. A description of the Site was provided in Subsection 2.2.

2.8 SITE RECONNAISSANCE SUMMARY

The approximately 8.7-acre Site property was developed with approximately 63,503 square-feet (sq-ft) of retail commercial and light industrial building space. The majority of this building space was single-story active retail facilities with one two-story structure located in the center of the Site property and one vacant residential structure located near the northern boundary of the Site property. During the public right-of-way Site reconnaissance the Site was observed to be occupied by the following tenants:

AIN	Address	Current Occupant
2748-005-020 (30,240 SF)	9859 Mason Avenue	Sweetberry Donuts
	9857 & 9855 Mason Avenue	Dorose Liquors
	9853 Mason Avenue	Tri Rific
	9851 & 9849 Mason Avenue	Tri House Barber Shop
	9845 Mason Avenue	Family Tri
	9843 Mason Avenue	Camp 1320 Motorsports
	9841 Mason Avenue	Homework Bound Learning Center
	9839 & 9835 Mason Avenue	Amazing Thai Bar & Grill
2748-005-021 (106,500 SF)	9831- 9825 Mason Avenue	Hercules Distributing LTD
2748-005-022 (20,150 SF)	9805 Mason Avenue	Kings Combat Sports
2748-005-027 (34,210 SF)	9765 Mason Avenue	Antiques
	9763 Mason Avenue	Chatsworth Animal Hospital
	9761 Mason Avenue	Vacant
	9759 & 9757 Mason Avenue	California Dance Academy
	9755 Mason Avenue	El Gallero Sports Bar
2748-005-028	9753 Mason Avenue	$40 Message

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AIN	Address	Current Occupant
(16,660 SF)	9751 Mason Avenue	Iglesia de Jesucristo Del Valle
	9749 Mason Avenue	Patches Fabrics
2748-005-029	9745 Mason Avenue	Seven Spa
(42,296 SF)	9741 Mason Avenue	Micro West Tech
	9739 Mason Avenue	Vacant
	9737 Mason Avenue	High Quality Hydro
	9735 Mason Avenue	All About Floors
	9733 Mason Avenue	Granada Lawn Mower Shop
2748-005-044 (17,360 SF)	20504 Lassen Street	LA's Auto Repair
2748-005-048 (97,240 SF)	20524 Lassen Street	RV storage lot

An automotive repair facility (LA's Auto Repair), with hydraulic lifts identified within the facility building and chemical waste/storage identified on the west side of the facility building, was identified on the northeast corner of the Site property. The northwest portion of the Site property was used as recreational vehicle (RV) and large vehicle storage. The east side of the Site property was a parking lot. A lawnmower repair shop (Granada Lawn Mower Repair), with chemical waste/storage was identified on the west side of the facility building, near the southeast corner of the Site property. Dumpsters, storage containers, and vehicles were observed on southeast gated parking lot along the west side of the retail stores. No areas of distressed vegetation, staining, ponding, or debris was observed on the Site property. The following features were not observed in connection with the Site or adjacent properties during the Site reconnaissance:

- Evidence of recent fill materials or unusual topography/mounds (excluding prior soil excavation and backfilling previously described in Section 1.3)
- Illegal dumping
- Pits, ponds, lagoons, or stressed vegetation
- Noxious odors, pools of liquid, stains, or corrosion
- Evidence of a septic system, leach field or cesspool

Ground staining

The following features were observed in connection with the Site or adjacent properties during the Site reconnaissance:

- Dry cleaning or gas stations operations likely to use, handle, or store chemical materials (former Site gas station operations are discussed in Sections 3 and 4 of this report)
- Commercial operations likely to use, handle, or store chemical materials

The current use of the Site as an automotive and lawnmower repair facility that includes the storage and use of various hazardous materials (automotive chemicals and wastes) is considered to be a REC for the Site.

Currently Tracked Materials	On-Site Risk	Comment
Asbestos	Unknown	The presence or absence of asbestos can only be confirmed with the implementation of a sampling and analytical testing program. No asbestos sampling was conducted as part of this assessment.
Chromium	Unknown	Interior Site access was not provided and chromium risks could not be determined.
Freon	Unknown	Interior Site access was not provided and Freon risks could not be determined. Regulated refrigerants may have been used during prior automotive operations.
Lead Paint	Unknown	The presence or absence of lead paint can only be confirmed with the implementation of a sampling and analytical testing program. No sampling for lead paint was conducted by as part of this assessment.
Lead Shielding	Unknown	Interior Site access was not provided and lead risks could not be determined.
Mercury	Unknown	Interior Site access was not provided and mercury risks could not be determined.
PCB Lighting Ballasts	Unknown	Interior Site access was not provided and PCB lighting ballasts could not be determined.
Soil Remediation (i.e., lead and other non-tank related materials)	No	None reported or observed.
Underground Storage Tanks	No	None reported or observed.
Above-Ground Storage Tanks	No	None reported or observed.

2.8.1 BUILDING CONFIGURATION

Approximately 63,503 sq-ft of building space (primarily single-story with one two-story structure located in the center of the Site property; previously identified in Section 2.5.5) was developed as a retail shopping center and RV storage yard, surrounded by a parking lot, the on 8.7-acre Site property. Multiple addresses along Lassen Street and Mason Avenue (identified in Section 2.6) were observed on the Site property.

2.8.2 FUEL STORAGE TANKS

No fuel storage tanks were identified on the Site during the Site reconnaissance.

2.9 POLYCHLORINATED BIPHENYLS (PCBs)

Electrical transformers, hydraulic equipment, capacitors and similar equipment may contain polychlorinated biphenyls (PCBs) in hydraulic or dielectric insulating fluids within the unit. The federal Toxic Substances Control Act (TSCA) generally prohibited the domestic manufacture of PCBs after 1979; however, there is a potential for the dielectric fluid in electrical and hydraulic equipment manufactured prior to that date to contain PCBs. Hydraulic lifts were identified in the automotive repair facility located on northeast corner of the Site property. In addition, several Southern California Edison (SCE) pole-mounted transformers were identified running the length of the Site property from north to south along the eastern boundary of the Site. Although no staining was observed, based on the age of the Site buildings (1923-1961) these represent an environmental risk for the Site. However, they appear to be within the SCE service area and maintenance responsibility would likely be SCE's.

2.10 EXISTING GROUNDWATER ISSUES

Groundwater depth beneath the subject area of the Site reportedly ranged from 149.25 to 153.80 35 feet bgs in 2007. No impacts to groundwater beneath the Site were identified during the Site reconnaissance.

2.11 WATER, WASTEWATER, DRAINS, AND STORM WATER

Storm water is anticipated to run off the Site away from the Site buildings and towards the adjacent streets to the southeast of the Site.

2.12 METHANE AND METHANE BUFFER ZONES

According to the City of Los Angeles, Department of Building and Safety (LADBS) database and methane zone map the Site is not located in a methane or methane buffer zone.

2.13 CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

According to the California Department of Conservation – Division of Oil, Gas and Geothermal Resources (DOGGR) database and mapping system no wells were identified on the Site property.

3.0 REGULATORY AGENCY LIST REVIEW

The following sections include our review of federal, state, local, and tribal environmental databases maintained by regulatory agencies. These regulatory listings include only those sites that are: (a) known to the regulatory agencies to be contaminated, (b) in the process of evaluation for potential contamination, (c) or regulated at the time of publication.

3.1 GENERAL METHODOLOGY

Stantec used a Commercial Database service, Environmental Data Resources, Inc. (EDR), in the preparation of this report. Research into environmental regulatory agency database listings was performed by this 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 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 REC 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 RECs). 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 position of a reported release site with respect to known or expected local and/or regional groundwater flow direction. Those release sites that were considered likely to have impacted the Site are identified in the report as RECs, 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 not considered likely to have impacted the Site.

3.2 SUMMARY OF REVIEWED ENVIRONMENTAL DATABASES

The following table summarizes the reviewed environmental databases.

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8.7-Acre Property
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Environmental Agency Lists, Search Distance, Listings

Agency List/Database	Search Radius	Number of Listed Sites
Federal NPL Sites	1.0 mile	0
Federal Delisted NPL Sites	1.0 mile	0
Federal CERCLIS List	0.5 mile	1
Federal CERCLIS NFRAP List	0.5 mile	1
Federal RCRA CORRACTS Facilities	1.0 mile	3
Federal RCRA Non-CORRACTS TSD	0.5 mile	1
Federal RCRA Generators	0.25 mile	16
Federal ERNS	Site	0
State and Tribal - Equivalent NPL	1.0 mile	0
State and Tribal - Equivalent CERCLIS	0.5 mile	17
State and Tribal Solid Waste Facilities	0.5 mile	2
State and Tribal Registered Storage Tank Sites	0.25 mile	1
State and Tribal Leaking Storage Tank Sites	0.5 mile	4
State and Tribal Institutional Control/Engineering Control Registries	Site	0
State and Tribal Voluntary Cleanup Sites	0.5 mile	2
Local Brownfield Sites	0.5 mile	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5 mile	4
Local Hazardous Waste Sites	Various	0
Local Lists of Registered Storage Tanks	0.25 mile	14
Local Land Records	0.5 mile	1
Records of Emergency Release Reports	Site	1
Other Ascertainable Records	Various	16

Agency List/Database	Search Radius	Number of Listed Sites
EDR Historical Auto Stations	0.25 mile	3
EDR Historical Cleaners	0.25 mile	3

3.3 SITE LISTINGS ON ENVIRONMENTAL DATABASES

This section lists the federal, state, local, tribal, and EDR proprietary environmental databases where the Site location was searched. The results of the environmental database search are listed in the table below. The Site location was listed on the environmental databases searched by EDR.

Federal Records	Site Not Listed
State and Local Records	CHMIRS, EMI, HAZNET (3 records), SWEEPS UST
Tribal Records	Site Not Listed
EDR Proprietary Databases	EDR US Hist Cleaners (2 records), EDR US Hist Auto Stat

The Site was listed on the CHMIRS, EMI, HAZNET, SWEEPS UST, EDR US Historical Cleaners, and EDR US Historical Auto Station databases.

The HAZNET database identified the removal of unspecified aqueous solution (0.33 tons) from the 20504 Lassen Street Site address in 2003; waste oil and mixed oil (0.38 tons) from the 9733 Mason Avenue Site address; and aqueous solution with organic residues, and halogenated solvents (0.22, 0.22, and 0.2293 tons) that included chloroform, methyl chloride, perchloroethylene from the 9737 Site address from 1999 to 2005.

The CHMIRS database identified an emergency response by Los Angeles County Fire Prevention regarding a call for three 55-gallon drums filled with an unknown liquid discovered on the Site address of 9735 Mason Avenue on the morning of December 18, 2007. The unknown liquid in the drums was reportedly contained and not released.

The EDR US Historical Cleaners database identified the former use of the 9737 Mason Avenue Site address as a dry cleaning facility from 1964 to 2008.

The EDR US Historical Auto Station database identified the former use of the 20504 Lassen Street Site address as an automotive repair facility from 1999 to 2012.

The EMI database identified the 9737 Mason Avenue Site address as a South Coast Air Quality Management district facility (#35758) that released 1 ton of organic hydrocarbon gases in 1987 with no reported violations. Additional information is provided in Section 4.1.

The SWEEPS UST database identified the Site address of 20504 Lassen Street as a facility with no USTs or reported violations.

The current use of the 20504 Lassen Street Site address as an automotive repair facility reportedly associated with the use, handling, storage, and disposal of regulated chemicals and hazardous wastes (unspecified aqueous solution) in small and/or large quantities is a REC for the Site.

In addition, the current use of the 9733 Mason Avenue Site address as a lawn mower repair shop reportedly associated with the use, handling, storage, and disposal of waste and mixed in small and/or large quantities is a REC for the Site.

The former use of Site address 9737 Mason Avenue as a dry cleaning facility from 1964 to 2008 with the reported use, handling, storage, and disposal of halogenated solvents (chloroform methyl chloride, perchloroethylene) is a historical recognized environmental condition (HREC) for the Site.

3.4 VICINITY PROPERTY LISTINGS ON ENVIRONMENTAL DATABASES

Stantec evaluated data presented in the environmental agency database search report according to the methodology described in Section 3.1. Based on these criteria, the following individual facilities were identified as the most likely potential sources of impact to the Site. Each was further evaluated to as to whether or not it creates a REC for the Site, and the rationale is provided below.

Listed Sites Name/Address	Database Listings	Distance/Direction from Site	REC? (Yes or No)
E R Carpet Cleaning & Janitorial / 9901 Lurline Avenue	EDR US Hist Cleaners	885 ft / West Northwest - upgradient	No
This property was listed as a historical dry cleaner from 2004 to 2010, which typically uses and stores chemicals that contain volatile organic compounds (VOCs) during cleaning operations. Although this site uses and stores dry cleaning chemicals (such as solvents) there have been no reported violations or releases to the subsurface on this property.			
Planet Green / 20724 Lassen Street	SWRCY	927 ft / West Northwest upgradient	No
This property was listed as a remanufacturer and recycler of inkject cartridges and cell phones, which typically contain VOCs. Although this site uses and stores dry cleaning chemicals (such as solvents) there have been no reported violations or releases to the subsurface on this property.			

Additional properties (two separate facilities) located less than 1/3-mile at equal or higher elevations from the Site were identified by EDR. However, no violations or releases were reported at any of these facilities and therefore do not meet the definition of a potential vapor

encroachment condition (pVEC) or a REC for the Site. These properties are further detailed in the EDR report.

The remaining listings in the database search report provided in Appendix C were evaluated in accordance with the methodology described in Section 3.1, and based on the number of facilities identified including confirmed release sites, historical auto stations, historical cleaners, and automotive storage/maintenance; their proximity to the Site and length of operations; the collective surrounding land uses should be noted as a REC for the Site. These facilities are commonly associated with underground storage tanks and other subsurface features, and the use, handling, storage, and disposal of regulated chemicals and hazardous waste streams.

4.0 AGENCY RECORDS

Stantec requested copies of records on file for the Site at various local agencies during completion of this Phase I ESA. Copies of the records requests and records received are provided in Appendix B.

4.1 AGENCIES CONTACTED

Stantec requested records from the following local agencies:

- City of Los Angeles Fire Department (LAFD)
- City of Los Angeles Department of Building and Safety (LADBS)
- Los Angeles County Department of Public Works – Environmental Unit UST Division (LACDPW)
- California Department of Toxic Substances Control (DTSC) Chatsworth regional office
- DTSC Cypress regional office
- Los Angeles County Public Health Investigations (LACPHI)
- Custodian of Records (Laura Gallardo) - Los Angeles Regional Water Quality Control Board (LARWQCB)

In addition to the agencies contacted above, the following agency records were reviewed online:

- **Department of Toxic Substances Control** – Envirostor and Hazardous Waste Tracking System (HWTS) databases (http://www.dtsc.ca.gov/database/index.cfm) No records were found for the Site on the Envirostor database.
- **Los Angeles Regional Water Quality Control Board** – GeoTracker database (http://GeoTracker.swrcb.ca.gov/). The Site was not listed on the GeoTracker database.
- **South Coast Air Quality Management District** - Notice of Violation (NOV) and Notice to Comply (NOC) (http://www.aqmd.gov/nov/nov.aspx?notice_type=NOV). The 9737 Mason Avenue Site address was identified on the EMI database as South Coast Air Quality Management district facility #35758 that released 1 ton of organic hydrocarbon gases in 1987 with no reported violations.
- **U.S. National Response Center** (http://www.nrc.uscg.mil/pls/htmldb/f?p=109:1:587700253356660). The Site was not listed on this database.

4.2 AGENCY RESPONSES

The following agencies responded that no records are on file for any of the Site addresses at their office locations:

- LACDPW
- DTSC Chatsworth regional office

- DTSC Cypress regional office

The following agencies did not respond during the completion of this report:

- LAFD
- LARWQCB (note that the online GeoTracker database was also accessed)

Summaries of records reviews from these agencies will be forwarded to Kaiser under separate cover if the response results in a change to the conclusions in this Phase I ESA. The following subsections include summaries of the files obtained from agencies that provided records.

4.2.1 Los Angeles County Public Health Investigations

On March 11, 2013, Stantec personnel were provided with records for the Site address 20504 Lassen Street via electronic mail from the Los Angeles County Public Health Investigations. These records included routine inspections conducted from 1983 to 2011 with no reported violations. During these inspections two 55-gallon used oil drums, one 55-gallon used oil filter drum, and one 55-gallon used coolant drum were consistently identified at this Site address. In 2008 80-gallons of used lubricating oil was reportedly removed from this Site address. In 1983 60-gallons of solvent and 400-500-gallons of sump oil was reportedly removed from this Site address. The reported presence of an oil sump and the use and storage of chemicals associated with automotive repair is a REC for the Site. Copies of these records are available in Appendix B.

4.2.2 City of Los Angeles Department of Building and Safety

According to electronic records provided by the City of Los Angeles Department of Building and Safety (LADBS), there were no violations reported for any of the Site addresses. Permits and related documents for the Site were available from March 1961 to December 2000. A copy of the list of these records is available in Appendix B.

5.0 OTHER ENVIRONMENTAL CONSIDERATIONS

5.1 SENSITIVE RECEPTORS AND WETLANDS

A sensitive receptor means any human or other ecological component (i.e., schools, hospitals, senior centers, municipal water wells, etc.) which is or may be affected by a contaminant from a contaminated site. EDR identified eight sensitive receptors within 0.25 miles of the Site. These sensitive receptors included Chatsworth Senior High, Derrick Family Day Care, Hansen Family Day Care, St. John Eudes School, Shwang Kwei Family Day Care, Chatsworth Preschool, Shackelford Family Day Care, and Huber Family Day Care. The current use of the Site (auto repair and lawnmower repair facilities) may impact these sensitive receptors.

Wetlands cannot be definitively identified through visual observation alone. Defensible wetland delineations require taxonomic classification of site vegetation, an investigation into the surface and subsurface hydrology of the Site, and identification of hydric soils. This level of delineation is outside of the scope of work for this assessment; however, no lands usually considered 'wetlands' were observed by Stantec. EDR reported that no wetland areas exist on the Site.

5.2 ENDANGERED SPECIES

Stantec personnel researched threatened and endangered species using the online searchable California Natural Diversity Database at http://www.dfg.ca.gov/bdb/html/cnddb.html . The California Natural Diversity Database (CNDDB) is a program that inventories the status and locations of rare plants and animals in California. According to the information listed for the Canoga Park 7.5 Minute topographic quadrangle, the following rare plants and animals and their status were identified:

SCINAME	COMNAME	FEDSTATUS	CALSTATUS	DFGSTATUS	RAREPLANTRANK
Anaxyrus californicus	arroyo toad	Endangered	None	SSC	
Agelaius tricolor	tricolored blackbird	None	None	SSC	
Antrozous pallidus	pallid bat	None	None	SSC	
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None	None		
California Walnut Woodland	California Walnut Woodland	None	None		
Delnandra minthornii	Santa Susana tarplant	None	Rare		1B.2
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None	None		1B.1
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	None	None		1B.1
Astragalus brauntonii	Braunton's milk-vetch	Endangered	None		1B.1
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	None	None		1B.3
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Candidate	Endangered		1B.1
Calochortus plummerae	Plummer's mariposa-lily	None	None		4.2

In as much as the Site and Site area are developed, endangered species are not anticipated to be an issue for use of the Site.

SCINAME = *Scientific Name*
COMNAME = *Common Name*
FEDSTATUS = Federal Listing Status: United States legal status under the Federal Endangered Species Act
DFGSTATUS = Indicates whether the species is a California Department of Fish and Game Species of Concern (SC). This applies to animals only. For the plant equivalent, see CNPSLIST. FP = Fully Protected, SSC = Species of Special Concern.
CALSTATUS = *California State listing status:* State of California legal status
RAREPLANTRANK = Generally, 1B = Plants rare, threatened, or endangered in California and elsewhere.

5.3 ASBESTOS-CONTAINING MATERIALS

While the use of asbestos containing material (ACM) in the manufacture of most building materials has not been fully prohibited by federal law, the use of asbestos, for the most part, has been discontinued since the late 1970s. Based on the age of the Site buildings (1923-1961) located on the Site property; it is likely that ACM is present. However, the presence or absence of ACMs can only be confirmed with the implementation of a sampling and analytical testing program. Regulations require that suspect ACMs be formally assessed by a certified asbestos consultant (CAC) prior to any renovation or demolition that may disturb such materials (unless those materials are handled as ACM).

5.4 LEAD-CONTAINING PAINT

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) and California Department of Public Health (CDPH) define LBP as paint or other surface coatings that contain lead equal to or in excess of one milligram per square centimeter (≥ 1.0 mg/cm^2), one half of one percent (≥0.5 %) by weight, or 5,000 parts per million (ppm). This definition is used to enforce regulations that apply to certain activities conducted in housing constructed prior to 1978, such as abatement, or the permanent elimination of a LBP hazard. Based on the age of the Site buildings (1923-1961) located on the Site property; it is likely that LBP is present. However, the presence or absence of LBP can only be confirmed with the implementation of a sampling and analytical testing program.

5.5 AIR EMISSIONS

The 9737 Mason Avenue Site address was identified on the EMI database as South Coast Air Quality Management district facility #35758 that released 1 ton of organic hydrocarbon gases in 1987 with no reported violations (Sections 3.3 and 4.1). Although no violations were reported, the former use of this Site address as dry cleaner with the reported release of hydrocarbon gases is an HREC for the Site.

5.6 RADON

Radon is a colorless, tasteless radioactive gas with a United States Environmental Protection Agency (EPA) specified action level of 4.0 picocuries per liter (pCi/L) of air. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is associated with its rate of accumulation within confined areas, particularly confined areas near to the ground, where

vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993).

Stantec reviewed the California Department of Public Health (CDPH) Radon Database for California (May 2010) and found that zip code 90027, the area where the Site is located, one hundred and fifty-nine tests were taken as part of the survey. Of the one hundred ninety-nine tests, thirty-two reported greater than 4 pCi/L (16 %).

Information regarding the presence of radon at the Site relies on regional data and does not represent site-specific data. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993). Based on the CDPH survey results, radon should not be an environmental issue at the Site.

To determine site-specific radon levels a radon survey would have to be conducted. Because regional radon levels appear to have low potential to represent a REC of the Site, a radon survey is not recommended.

5.7 DRY CLEANING OPERATIONS

The Site address 9737 Mason Avenue was used as a dry cleaning facility from 1964 to 2008 and is an (HREC) for the Site. EDR identified one former dry cleaning facility within 0.25 miles of the Site. However, no violations or releases were reported at this facility and therefore does not meet the definition of a PVEC or a REC for the Site.

5.8 PESTICIDES

No documentation of commercial on-site use of agricultural chemicals (e.g., pesticides, insecticides, fertilizers or herbicides) was discovered during this ESA. Stantec did not identify any apparent agricultural chemical processing areas, such as crop dusting airfields, bulk mixing areas; or repacking, transfer, or agricultural chemical storage areas in the aerial photographs that were reviewed during this ESA.

5.9 WATER INTRUSION / MICROBIOLOGICAL EVALUATION

Interior access to the on-Site buildings was not provided, no evidence of water intrusion or microbiological activity was observed on the exterior of on-Site buildings during reconnaissance.

5.10 ELECTROMAGNETIC RADIATION

Several SCE pole-mounted transformers were identified running the length of the Site property from north to south along the eastern boundary of the Site. Although no staining was observed, based on the age of the Site buildings (1923-1961) these represent an environmental risk for the Site. However, they appear to be within the SCE service area and maintenance

responsibility would likely be SCE's. This equipment is not likely to represent an electromagnetic radiation based REC for the Site.

6.0 DATA GAPS

The federal AAI rule [40 CFR 312.10(a)] and ASTM E1527-05 identify a "data gap" as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

Deletions or Exceptions From Scope of Work:	None
Weather-Related Restrictions To Site Reconnaissance:	None
Facility Access Restrictions to Site Reconnaissance:	Access to the interior of the on-Site buildings was not provided during the Site reconnaissance. Photos and descriptions of the interior of the facility buildings are not provided in this report.
Other Site Reconnaissance Restrictions:	None
Data Gaps From Environmental Records Review:	None
Data Gaps From Historical Records Review:	None
Data Gaps From Interviews:	Property owner information was not provided and prevented Stantec from completing interviews. No owner interview was conducted during this investigation.
Other Data Gaps:	None

7.0 CONCLUSIONS AND RECOMMENDATIONS

Stantec has completed a Phase I ESA of the approximately 8.7-Acre property located southwest of the intersection of Mason Avenue and Lassen Street in the City of Chatsworth (Los Angeles), California (the Site). The Phase I ESA was conducted in conformance with ASTM E 1527-05 on behalf of Kaiser as part of Kaiser's environmental due diligence prior to a property transaction.

We have performed the Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 of the Site. Any exceptions to, or deletions from, this practice are described in Section 6.0 DATA GAPS of this report.

This Phase I ESA has revealed evidence of RECs in connection with the Site:

Current Site Use: The use of the 20504 Lassen Street Site address as an automotive repair facility associated with the use, handling, storage, and the reported disposal of regulated chemicals and hazardous wastes (unspecified aqueous solution) is a REC for the Site.

In addition, the use of the 9733 Mason Avenue Site address as a lawn mower repair shop associated with the use, handling, storage, and reported disposal of waste and mixed oil is a REC for the Site.

Former Site Use: The former use of the Site address 20504 Lassen Street as a gasoline service station from 1962 to 1970 is a HREC for the Site.

In addition, the former use of the Site address 9737 Mason Avenue as dry cleaning facility from 1964 to 2008 with the reported disposal of halogenated solvents (chloroform methyl chloride, perchloroethylene) is a HREC for the Site.

Based on the current and past use of the Site, additional assessment is recommended prior to a property transaction.

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
8.7-Acre Property
Chatsworth, California

8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR 312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Scott Edblad, CPESC, CESSWI
Associate Scientist

Reviewed by:

Steven C. Brady, CEG, CHG
Managing Principal Hydrogeologist

All information, conclusions, and recommendations provided by Stantec in this document regarding this Phase I ESA have been prepared under the supervision of and reviewed by the Licensed professional whose signature appears below.

Licensed Approver:

Name: **Steven C. Brady, C.E.G., C.HG.** **Signature:**

Date: ***March 29, 2013***

9.0 STATEMENT OF LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based upon professional opinions with regard to the subject matter. These opinions were prepared in accordance with generally accepted environmental consulting 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. While 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 a legal opinion or representations 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.
7. Any report produced by Stantec in relation to the Services is intended for the sole use of Client. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion. Any such consent will provide no greater rights to the third party than those held by the Client under the contract, and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter.

10.0 REFERENCES

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Prepared for

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SITE SUBSURFACE INVESTIGATION REPORT

LASSEN STREET AND MASON AVENUE CHATSWORTH, CALIFORNIA

Prepared by

Geosyntec consultants

engineers | scientists | innovators

1111 Broadway, 6th Floor
Oakland, California 94607

Project Number: WR1767

4 September 2013

Confidential – Attorney-Client Privileged

Site Subsurface Investigation Report
Lassen Street and Mason Avenue

Chatsworth, California

Prepared by

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1. INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) prepared this Site Subsurface Investigation Report (Report) on behalf of Kaiser Foundation Health Plan, Inc. (KP). This Report describes the details of the soil, soil vapor, and groundwater investigation that was performed at the property located at the southwest corner of Lassen Street and Mason Avenue in Chatsworth, California (Site). A Site location map is provided as **Figure 1**.

It is our understanding that KP is contemplating acquisition of the subject Site for future development of a medical office building. This site investigation was conducted as part of the environmental due diligence process. To formulate the Site subsurface investigation program, Geosyntec reviewed the Phase I Environmental Site Assessment (ESA) prepared by Stantec Consulting Corporation (Stantec, 2013).

This Report is organized as follows:

- **Section 2**, *Background*, summarizes the Site location, use, and describes the regional and site specific subsurface geology and hydrogeology.
- **Section 3**, *Field Investigation Activities*, describes the procedures followed in conducting the proposed soil borings, collecting grab groundwater samples, and installing and sampling temporary soil vapor probes.
- **Section 4**, *Results*, describes the analytical results of the sampling activities that were performed as a part of the field effort, including a discussion of the regulatory screening criteria used in evaluation of analytical laboratory results.
- **Section 5**, *Conclusions*, provides conclusions based upon the results described in Section 4.
- **Section 6**, *Recommendations*, provides recommended next steps based upon the findings described in Sections 4 and 5.
- **Section 7**, *Limitations*, provides the limitations of this Report.
- **Section 8**, *References*, provides a list of references used to prepare this Report.

2. BACKGROUND INFORMATION

2.1 Site Description and Setting

The approximately 8.7 acre Site currently consists of retail commercial and light industrial buildings, recreational vehicle (RV) storage, and a parking lot. The surrounding land use includes residences, a corner gas station, commercial/light industrial buildings, and a self-storage facility. In the Phase I ESA (Stantec, 2013), Stantec identified the following recognized environmental conditions (RECs) and historical recognized environmental conditions (HRECs). The RECs and HRECs for the units are depicted in **Figure 1**:

- LA's Auto Repair, 20504 Lassen Street: an auto repair shop with past use as a gasoline service station from 1962 to 1970;
- High Quality Hydro, 9737 Mason Avenue: past use as a dry cleaning facility from 1964 to 2008; and,
- Granada Lawn Mower Shop, 9733 Mason Avenue: a lawn mower repair shop since 1975.

2.2 Regional Geology and Hydrogeology

As reported by Stantec in Phase I ESA, the Site is within the Transverse Ranges Geomorphic Province of California, within the Los Angeles Basin. The Site area is underlain by Tertiary sedimentary rocks that include the lower Pleistocene Saugus Formation and Pleistocene and Holocene age alluvium. Holocene age alluvium consists primarily of coarse-grained unsorted gravel and sand deposited by coalescing alluvial fans emanating from the surrounding highlands. The Saugus Formation is composed of continental and shallow marines (Sunshine Ranch Member) deposits of conglomerates, sands, silts, and clays, with permeability less than that of the Pleistocene alluvium (CDCDMG, 1986).

According to DWR's Bulletin 118, the Site lies in the San Fernando Valley Groundwater Basin of the South Coast Hydrologic Region. Stantec personnel reviewed California's Groundwater Bulletin 118 dated 27 February 2004 for the San Fernando Valley Groundwater Basin, produced by California Department of Water Resources

(DWR) obtained online.[1] According to the DWR's Bulletin 118, the San Fernando Valley Groundwater Basin includes the water-bearing sediments beneath the San Fernando Valley, Tujunga Valley, Browns Canyon, and the alluvial areas surrounding the Verdugo Mountains near La Crescenta and Eagle Rock. The basin is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by Simi Hills. The valley is drained by the Los Angeles River and its tributaries (DWR, 2004).

2.3 Site Geology and Hydrogeology

Site lithology information is recorded on boring logs (Appendix A), and Cross sections of the northern and southern boundaries are presented in Figure 1. Based on the soil cores observed during drilling, native soil encountered consists primarily of gravelly sand, sand with gravel, sand, silty sand, and sandy silt from the surface to approximately 125 feet bgs, the maximum depth investigated. The Southern Cross-section shows the presence of fine-grained layers at 21, 29, and 38 feet bgs. The fine-grained layers at these depths were two to five feet thick. The first encountered groundwater was observed in the borings at depths of 119 and 125.5 feet bgs and indicated that the groundwater flow direction is towards the Southeast.

[1] www.water.ca.gov/groundwater/bulletin118/gwbasin_maps_descriptions.cfm

3. FIELD INVESTIGATION ACTIVITIES

This section describes the Site subsurface investigation activities. Activities included soil borings for the collection of soil samples, grab groundwater samples, and installation of temporary soil vapor monitoring probes.

3.1 Pre-Investigation Activities

- A Site Health and Safety Plan was developed in accordance with local, state, and federal regulations, and tailored for the scope of field activities;
- A Boring permit was obtained from the County of Los Angeles Public Health Department, Environmental Health Division, Drinking Water Program (LA-PHD) (**Appendix B**);
- Prior to drilling, and Underground Service Alert (USA) was notified at least 48 hours prior to subsurface work (USA Ticket #A31681286); and,
- Spectrum Geophysics of Chatsworth, California, performed a geophysical survey on 20 June and 15 July 2013 to clear potential subsurface utilities, or other obstructions prior to investigation work. Based on the survey results, some of the investigation locations were relocated a maximum of 5 feet to clear underground or overhead utilities.

3.2 Soil and Grab Groundwater Investigation

Geosyntec advanced soil borings with (a) co-located vapor probes, denoted "SBV-xx"; (b) temporary wells for grab-groundwater sampling, denoted "SBG-xx"; and, (c) soil borings only (denoted "SB-x") at the locations shown in **Figure 3**. These locations were selected to investigate soil conditions laterally and vertically near the former drycleaner operations and the former gas station, and to investigate groundwater conditions onsite (i.e., depth to groundwater, and groundwater quality).

Direct-push and hollow stem auger soil coring for environmental soil sampling was conducted by Gregg Drilling, Inc. of Signal Hill, California (Gregg), a C-57 licensed driller under oversight of Geosyntec personnel. All locations were hand-augered to 5 feet bgs to ensure the location was free from subsurface obstructions. All reusable down-hole equipment was decontaminated before use at each investigation location and depth.

3.2.1 Soil Sampling and Analysis

Soil samples were collected at a total of thirty locations (SB-1 through SB-3, SBG-1 through SBG-3, SBV-01 through SBV-07, SV-01 through SV-17), Grab groundwater samples were collected at three locations (SBG-1 through SBG-3). Outdoor soil borings (SBG-1 through SBG-3, SBV-01 through SBV-07, and SV-01 through SV-12) were advanced between 20 June to 26 June 2013, and indoor soil borings (SB-1 through SB-3 and SV-12 through SV-17) were advanced between 15 and 18 July 2013.

All borings were advanced using a MARL 2.5T rig with direct push technology (DPT), except for borings SBG-1, SBG-2 and SBG-3 which were advanced using a Mobile-61 truck-mounted hollow stem auger (HSA) rig due to the depth of the borings. For borings advanced using DPT, borings were advanced using 2-inch diameter, hollow steel direct-push rods fitted with vinyl acetate sleeve liners. The borings were continuously cored to allow for visual logging of lithologic conditions. The push rods were advanced in 4-foot vertical intervals. Upon advancing each successive 4-foot vertical interval, the inner sleeve liner was extracted to collect the discrete subsurface soil samples, leaving the outer casing in place. The soil samples were collected by cutting an approximate 1 foot section of core contained in the liner sleeve at the desired sample depth and capping each of the exposed ends of the liner sleeve with Teflon-lined end caps. The capped liners were labeled, placed in a zip-locked bag, and stored in a cooler filled with water ice.

Samples for VOC analysis were collected using the TerraCore® method, in accordance with Environmental Protection Agency (EPA) Method 5035A. Soil was collected in the disposable sampler as soon as possible after exposing the acetate sleeve containing the soil core. For each sample, one sampler volume of soil was then injected into each of three laboratory-provided, glass vials containing a water or methanol preservative as applicable.

For borings advanced using HSA technology, soil samples were collected with a clean split spoon sampler to collect soil through the open augers. Soil samples were collected by hammering a split spoon sampler below the auger as drilling progressed. Samples were then extracted through the drill string and opened for sample collection and soil description. Split spoon samplers were thoroughly cleaned between each use and cleaned samplers were used to obtain equipment blanks during field work.

The soil was visually logged using the Unified Soil Classification System (USCS) by the field engineer/geologist, under the supervision of a California Professional Engineer. Boring logs are provided in Appendix B. Soil cores were field-screened for the presence of volatile organic compounds (VOCs) using a portable photo-ionization detector (PID) instrument. Field screening was conducted using a portable MiniRAE 3000™ PID handheld meter with a 10.6 electron volt ionization bulb, capable of identifying a range of VOCs to a detection level of 0.1 parts per million (ppm). The PID was calibrated each day of the field deployment using 100.0 PPM Isobutylene gas.

Soil samples were subsequently shipped to a California-certified analytical laboratory, Calscience Environmental Laboratories (Calscience), of Garden Grove, California, under Geosyntec chain-of-custody procedures for following analyses:

- VOCs by EPA Method 8260B and were sampled using a Terra Core® sampler in accordance with EPA Method 5035;
- Semivolatile organic compounds (SVOCs) by EPA Method 8270C;
- Title 22 Metals by EPA Method 6010B and 7471A;
- Total petroleum hydrocarbons as gasoline (TPH-g) by EPA Method 8260B; and,
- Total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as motor oil (TPH-mo) by EPA Method 8015B.

Upon completion of sampling, the borings were grouted to ground surface with a neat cement grout consisting of a blend of 95 percent Portland cement and 5 percent bentonite using the tremmie method from the bottom up. All grouting was conducted in accordance with LA-PHD permit requirements.

3.2.2 Grab-Groundwater Sampling and Analysis

Temporary PVC screen casings were installed in the borehole, and grab-groundwater samples were collected using a disposable or a stainless steel bailer. All reusable downhole and sampling equipment was decontaminated before sampling at each location and depth. Disposable sampling equipment was discarded after collection of each sample. Groundwater sample containers were immediately sealed, labeled, stored in a cooler with ice, and shipped to Calscience, under Geosyntec chain-of-custody procedures for analysis of VOCs by EPA Method 8260B and TPH-d and TPH-mo by

EPA Method 8015B. Grab-groundwater samples were collected at SBG-1, SBG-2 and SBG-3 at depths of 125.5, 119, and 119 feet bgs, respectively.

3.3 Soil Vapor Investigation

Based on information gathered from Stantec's Phase I ESA (Stantec, 2013) and soil vapor investigation conducted by Padre Associates (Padre Associates, 2007)[2], Geosyntec installed and sampled shallow temporary soil vapor probes onsite at the former drycleaner operations where high VOC[3] concentrations had been detected, at the former gas station where UST removal had been conducted, and around the perimeter of the Site to investigate the potential exposure risk to local receptors.

3.3.1 Temporary Soil Vapor Probe Installation

Under the oversight of Geosyntec Personnel, between 20 and 25 June 2013, Gregg installed eighteen single and dual-nested soil vapor probes at outdoor locations; on 25 and 26 June 2013, Jones Environmental Laboratory (Jones Environmental), an onsite mobile California-certified laboratory based in Fullerton, California, conducted sampling at these locations. Between 15 and 17 July 2013, Gregg installed an additional six single- and dual-nested soil vapor probes at indoor locations within the former drycleaner (9737 Mason Ave) and the two adjacent units either side (9735 and 9739 Mason Ave); on 18 July 2013, Jones Environmental conducted sampling at these locations. Soil vapor probe locations are in **Figure 3**. Probe construction and sampling procedures were conducted in accordance with the 2012 Department of Toxic Substances Control (DTSC) Advisory (DTSC, 2012).

Locations were hand-augered to 5 feet bgs and, thereafter, were advanced using the direct push method to the base of the target sampling interval(s) at each location. The soil was logged according to the USCS by the field engineer and geologist, under the supervision of a California Professional Engineer. Boring logs are provided in Appendix B.

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[2] Padre Associates, Inc. "Results of Soil Vapor Investigation Activities 9733, 9735, 9737, 9739, 9741, and 9743 Mason Avenue, Chatsworth, California". 31 October 2007.

[3] The chemicals of concern (COCs) are PCE, trichloroethene (TCE), vinyl chloride (VC) and degradation daughter products, including cis-1,2-dichloroethene (cis-DCE) and trans-1,2-dichloroethene (trans-DCE), as well as gasoline constituents benzene, toluene, ethylbenzene, and xylenes (BTEX).

A probe consisting of a 6-inch-long, ¼-inch-diameter, stainless steel-screened implant connected with a compression fitting to ¼-inch Nylaflow tubing was installed in the boring. For single-nested probes, the probes were placed 6 inches above the bottom of each boring. A sand filter pack of clean Monterey #3 sand was placed within the borehole annulus around the probe, extending two feet from the base of the boring from a height of approximately 6 inches below to 6 inches above the 6-inch long probe screen. One foot of dry granular bentonite was then placed in lifts of approximately 3 inches each above the filter pack. The remainder of the borehole annulus was backfilled with bentonite chips, hydrated in lifts, to seal the borehole annulus to just below ground surface. Following placement of the bentonite seal, the top end of each soil vapor probe was fitted with a valve to establish and maintain an air-tight seal.

For dual-nested probes, the deeper probe was installed as above, and the shallow probe was installed within a sand filter pack extending 6 inches above and 6 inches below the stainless steel probe screen. A one-foot bentonite seal was placed above the sand filter pack and the remainder of the borehole was backfilled with bentonite chips and hydrated in lifts. Each soil vapor probe tube was fitted with a three-way valve.

At outdoor locations, each probe was temporarily secured in a 6-inch plastic well box installed flush with the ground surface, to secure and protect the probes between installation and sampling. After construction, all soil vapor probes were allowed to equilibrate for two days prior to purging and sampling. No rain events occurred within the 72 hours prior to sampling.

Following sampling, probes were abandoned by pulling out tubing and backfilling with hydrated granular bentonite and patching with concrete. At outdoor locations, the ground surface completion included concrete dyed to match the existing ground surface. At indoor locations, the ground surface completion included re-installation of pre-existing laminate and carpet flooring.

3.3.2 Purge Volume and Sampling Rate

Sampling was completed by Jones Environmental under the supervision of Geosyntec personnel. Each newly installed soil vapor probe was allowed to equilibrate for at least two hours. Prior to sampling, a volume of air was purged from each sampling location to avoid sampling any stagnant or ambient air. One purge volume was calculated in the field based on the volume of the void space in the tubing plus an estimate of the void space in the sand pack and in the lower ten inches of dry granular bentonite.

Site-specific purge volume versus chemical concentration tests were conducted with one, three, and ten purge volumes at soil vapor probe locations SV-08 at 5 feet bgs, SV-08 at 15 feet bgs, SV-12 at 5 feet bgs and SV-16 at 9 feet bgs. Based on the highest concentration for PCE detected during the step purge test, a purge volume of one was selected. The purge volume for each sample location was recorded. Soil vapor was purged from each location with an estimated flow rate of 200 mL per minute (mL/min) to prevent ambient air intrusion and to limit stripping. The flow rates are consistent with flow rates recommended in the Advisory.

3.3.3 Leak Testing

A leak test was conducted at each newly-installed soil vapor probe location to confirm that sampling equipment was air tight. The leak test utilized the tracer compound, n-Propanol/n-Pentane. The tracer compound was applied to points of potential ambient air intrusion such as the hydrated bentonite seal at the ground surface, the top of the soil vapor probe, and sample system connections. The compound was analyzed but was not detected above the laboratory practical quantitation limit.

3.3.4 Soil Vapor Sampling and Analysis

The soil vapor samples were collected after appropriate purge volumes were evacuated and the leak tests were applied. The soil vapor samples were collected in laboratory batch-certified 1-liter Summa™ canisters. Soil vapor samples were analyzed for VOCs and TPH-g by EPA Method 8260 and the applied leak test tracer compound, Propanol/n-Pentane, by Jones Environmental, using U.S. Environmental Protection Agency (EPA) Method 8260B under Geosyntec chain-of-custody procedures.

3.3.5 Quality Assurance/Quality Control Sample Collection and Analysis

The following QA/QC samples were collected for the grab-groundwater:

- A duplicate sample was collected from SBG-2-GW.
- Trip blanks consisting of organic-free, deionized water were prepared by the laboratory and accompanied the sample containers during transport prior to, during, and after sampling. The trip blank sample bottles were not opened.

- One soil equipment blank sample was collected each day from soil sampling equipment, by pouring organic-free, deionized water over either sample collection equipment.

The following QA/QC samples were collected for soil:

- Duplicate samples were collected from SB-03-05, SBG-02-70, SBV-01-05, SBV-04-20, SBV-05,19, SV-08-05, and SV-14-05.

The following QA/QC samples were collected for soil vapor:

- Duplicate samples were collected and analyzed by Jones from soil vapor probes SBV-02 at 5 feet bgs, SBV-06 at 5 feet bgs, and SV-17 at 13.5 feet bgs.

3.4 Investigation Derived Waste

Investigation-derived waste (soil and water) was temporarily stored in labeled Department of Transportation-approved containers on Site pending profiling and transported to an approved California facility for non-hazardous waste. Copies of the waste manifests are presented in **Appendix C**.

4. RESULTS

This section summarizes the analytical results and distribution of chemicals in soil, soil vapor, and groundwater. **Tables 1a and 1b** present the soil analytical data, **Table 2** presents the soil vapor data, and **Table 3** presents the groundwater data. Analytical results for tetrachloroethene (PCE) and trichloroethene (TCE), the primary constituents detected in soil and soil vapor at the Site, are presented in **Figures 3 and 4**, respectively. Analytical laboratory reports are provided in **Appendix D**.

To evaluate the magnitude and significance of the analytical data, the results are compared to the following regulatory screening levels:

- Soil analytical results are compared to residential Regional Screening Levels (RSLs; USEPA, 2013). RSLs are generic, risk-based chemical concentrations published by the U.S. Environmental Protection Agency (USEPA) for use in screening-level evaluations. They are based on standard USEPA estimates of exposure and toxicity and are calculated based on both residential and industrial land use. The RSLs are used in a screening-level capacity to determine if the observed concentrations exceed a level of potential concern. The potential impact to the groundwater due to soil leaching was not evaluated because no contamination was observed in the soil above the groundwater, and in the groundwater. It is reasonable to conclude the soil leaching at the Site poses a negligible risk to groundwater and human health.
- Soil vapor analytical results are compared to the California Environmental Protection Agency's (Cal EPA) California Human Health Screening Levels (CHHSLs) for shallow (5 feet bgs) soil vapor (Cal EPA, 2005 and updates). For constituents with no published CHHSL, the Environmental Screening Levels (ESLs) published by the California Regional Water Quality Control Board – San Francisco Bay Region (CRWQCB-SF, 2013) were used. Because the residential screening levels are lower and, therefore, are more conservative, these are used for the data discussion.
- Groundwater analytical results are compared to the California Department of Public Health's (CDPH) Maximum Contaminant Levels (MCLs) for drinking water (CDPH, 2013). Published MCLs are not available for TPH-g, TPH-d or TPH-mo; for TPH constituents, ESLs are used.

4.1 Analytical Results

Geosyntec performed a QA/QC review of all analytical data received from the laboratory in accordance with the U.S. EPA National Functional Guidelines. Data were reviewed for completeness, accuracy, precision, sample contamination, conformance with holding times and pressure requirements, and detection limits within acceptable ranges. Where data qualification was required, the appropriate data flag was included in the data tables and also was marked on the original laboratory reports. The qualified data can be used for decision-making purposes; however, the limitations identified by the data qualifiers should be considered when using the data. Overall, the results of the data quality evaluation indicate that the analytical results are valid and usable, and the data validation is summarized below:

- Completeness. Completeness is expressed as the percentage of valid useable data obtained to the amount that was expected. For the June-July 2013 sampling event, valid data were obtained from 100 percent of the samples collected.
- Accuracy. Accuracy is defined as the degree of agreement between a measured value and a true or known value. Accuracy is determined using spike samples. Each of the air samples was "spiked" with surrogate compounds and analyzed using. The recovery of all the surrogates was within acceptance limits.
- Precision. Precision is the degree of agreement between duplicate analyses of the same parameter in a given sample. Precision is calculated as the relative percent difference (RPD) in duplicate analytical results as follows:

$$RPD = \frac{Result1 - Result2}{AverageResult} x100$$

  Duplicate samples were collected per section 3.3.5. Analytical results of duplicate samples were well below the project goals of 30% RPD for all parameters for all groundwater and soil vapor samples.
- Sample Contamination. Method blank, equipment blank, and trip blank samples were analyzed to check for potential sample contamination. No compounds were detected in these samples.

- Holding Times. The analytical reports were reviewed to identify whether the analytical method holding times were met. The holding times were met for all analysis.
- Detection Limits. Groundwater and soil samples were reported to the Method Detection Limits (MDLs). Soil vapor samples were reported to the Method Reporting Limits (MRLs). For soil vapor samples, variations in the MRLs were reported with the data due to canister dilution.

A summary of the results is presented in the following sections; only detected analytes are discussed.

4.1.1 Soil

Soil samples were analyzed from borings SB-1 through SB-3, SBG-1 through SBG-3, SBV-1 through SBV-7, and SV-01 through SV-17. Borings SB-1 and SV-12 through SV-17 were advanced inside the former drycleaner building and adjacent buildings along the southern portion of the property. Borings SB-1 through SB-3 and borings SV-1 through SV-17 were advanced to depths of approximately 5 to 15 feet bgs. Borings SBG-1 through SBG-3 were advanced to first encountered groundwater at depths of approximately 125 to 140 feet bgs and borings SBV-1 through SBV-7 were advanced to depths of approximately 40 feet bgs.

4.1.1.1 VOCs

A summary of the analytical results for VOCs is presented in **Table 1a** and the results for PCE and TCE in soil are presented in **Figure 4**. Seventy soil samples collected from various depth intervals between 5 and 125 feet bgs were analyzed for VOCs. Of the VOCs reported in soil, only PCE, TCE, benzene, toluene, ethylbenzene, and xylenes (o-xylene and m,p-xylene) were detected; however, none of these constituents were detected above the residential RSLs based on direct contact. The residential RSLs for PCE and TCE are 22,000 micrograms per kilogram (µg/kg) and 910 µg/kg, respectively. PCE was detected at the highest concentration at 52 µg/kg from a depth of 5 feet bgs in boring SB-1. The highest concentrations of PCE were reported in samples collected from the southern portion of the site. Throughout the site, PCE was detected in 26 samples (or 37 percent) at concentrations ranging from 1.1 to 52 µg/kg. TCE was detected in 10 samples (or 14 percent) at concentrations ranging from 0.28 to 3.9

µg/kg. As in the case of the PCE samples, the highest concentrations of TCE were reported in samples collected from the southern portion of the Site.

Low concentrations of petroleum aromatic hydrocarbons were detected in the soil (below residential RSLs). The highest concentrations of petroleum hydrocarbons were reported in samples collected from the northeast corner of the site in the vicinity of the auto repair facility (former gas station). Benzene was detected in 70 samples (or 100 percent) at concentrations ranging from 0.12 to 6.2 µg/kg. Toluene was detected in 65 samples (or 93 percent) at concentrations ranging from 0.47 to 7.1 µg/kg. Ethylbenzene was detected in 61 samples (or 87 percent) at concentrations ranging from 0.13 to 8 µg/kg. Total xylenes (i.e., sum of o-xylene and m,p-xylene) were detected at concentrations ranging from 0.8 to 3.25 µg/kg.

4.1.1.2 TPH

A summary of the analytical results for TPH is presented in **Table 1a**. 36 samples were analyzed for TPH-g, TPH-d, and TPH-mo. TPH-g was detected in 19 samples (or 53 percent) at concentrations ranging from 0.05 to 0.3 milligrams per kilogram (mg/kg). TPH-d was detected in 7 samples (or 19 percent) at concentrations ranging from 2.1 to 47 mg/kg. TPH-mo was detected in 8 samples (or 22 percent) at concentrations ranging from 8.3 to 57 mg/kg. In samples analyzed, TPH was not detected above the RSL of 100 mg/kg.

4.1.1.3 SVOCs and PCBs

Soil borings SB-2 and SB-3 were installed near the hydraulic lifts and soil boring SBV-02 was installed near the former waste oil tank both located at the Auto Repair shop. The purpose of these borings was to investigate impacts due to hydraulic and waste oil at these locations. The samples were analyzed for SVOCs and PCBs, typically these chemicals are associated with the waste oil and hydraulic lift oil. No SVOCs and PCBs impacts were noted based on the analytical results.

4.1.1.4 Metals

Analytical results for metals detected in soil samples are presented in **Table 1b**. A total of 26 soil samples collected from depths of 2 and 5 feet bgs were analyzed for Title 22 metals using U.S. EPA Methods 6020 and 7471 (for mercury). The only metal that was detected at a concentration above its residential CHHSL was arsenic, at concentrations

ranging from 1.76 to 6.28 mg/kg. Arsenic in soil is naturally occurring and typically is present at concentrations greater than risk-based screening criteria. Based on the DTSC 2007 study, background arsenic concentrations in Southern California is 12 mg/kg. The reported concentrations of arsenic in soil at the Site are generally consistent laterally and vertically, with no large variability that would suggest a possible onsite source. Therefore, the range of concentrations of arsenic reported in soil samples collected from the site suggests that the presence of arsenic is likely attributed to naturally occurring background.

4.1.2 Soil Vapor

Analytical results for VOCs detected in soil vapor samples are presented in **Table 2** and the results for PCE and TCE are presented in **Figure 4**. A total of thirty-five soil vapor samples (including two duplicates) were collected and analyzed from twenty-four borings across the site. Nine borings (SV-1 through SV-4 and SBV-1 through SVB-5) were advanced in the northern half of the site and the remainder (SV-5 through SV-17 and SBV6 and SBV-7) were advanced in the southern half of the site. Six of the fifteen borings were advanced beneath the former drycleaner and adjacent buildings. A total of twenty-five samples were collected from 5 feet bgs and ten were collected from 15 feet bgs. Of the VOCs analyzed in soil vapor, only PCE and TCE were detected.

PCE was detected in all samples at concentrations ranging from 105 to 79,100 micrograms per cubic meter (µg/m^3). The maximum concentration (79,100 µg/m^3) of PCE in soil vapor was reported in boring SV-08 from 5 feet bgs. At 15 feet bgs in boring SV-08, PCE was detected at 49,400 µg/ m^3. PCE also was detected above the residential CHHSL in twenty-three samples from 5 feet bgs. At 15 feet bgs, PCE was detected above the residential CHHSL in ten samples. TCE was detected in nineteen samples at concentrations ranging from 0.017 to 38.6 µg/L. TCE was detected above the residential CHHSL of 0.53 µg/L in five samples from 5 feet bgs. At fifteen feet bgs, TCE was detected above the residential CHHSL in two samples. The maximum concentration of TCE in soil vapor was reported in boring SV-08 from 15 feet bgs. At 5 feet bgs in boring SV-08, TCE was detected at 38.2 µg/L.

Except for TCE, PCE dechlorination products, cDCE, tDCE, and vinyl chloride, were not detected in soil vapor. The results of the soil vapor investigation are generally consistent with historical data, where PCE was previously detected at higher concentrations (i.e., up to 14,000 µg/L in VP-1) beneath the former drycleaner building on the southern end of the Site.

Elevated soil vapor PCE concentrations were detected primarily in the former drycleaner shop area and throughout the southern half of the subject property. At deeper depths (15 feet bgs), the soil vapor PCE impacts appear to coincide with the shallow 5 foot samples centered below the building on the southern half of the property. PCE concentrations at 15 feet bgs in this area of the site are similar in magnitude to the levels detected at 5 feet bgs. This is likely due to the high permeability coarse-grain soil present in the area facilitating an advective soil vapor transport.

Soil vapor PCE levels generally decrease with lateral distance from the apparent center of the highest PCE concentrations (i.e., beneath the former drycleaner building and to the west) in the northern and eastern directions. Based on the results reported from borings SV-7, SV-5 and SV-6, the concentrations of PCE decreased to at least two orders of magnitude to the north. To the east near the southeast corner of the property, the concentration of PCE in boring SV-11 is at least 10 times lower than the concentrations reported beneath the building. Given the decrease in the concentration gradient for PCE reported along the eastern edge of the building in borings SV-10 and SBV-7 to boring SV-11, the concentrations of PCE are expected to further attenuate to below residential CHHSLs near the residential homes located to the east across Mason Avenue. Higher resolution of the northern and eastern extent may be necessary during remedy design. Conversely, the western and southern extents, particularly at shallow and deeper depths, as well as the vertical extent, have not been defined.

4.1.3 Grab Groundwater

Analytical results for VOCs detected in groundwater are presented in **Table 3** and the results for PCE and TCE are presented in **Figure 3**. A total of three grab groundwater samples were collected and analyzed for VOCs, TPH-g, TPH-d, and TPH-mo. Borings SBG-1 and SBG-2 were advanced in the northern portion of the site (near the auto repair shop) and boring SBG-3 was advanced in the southern portion (near the former drycleaner building).

Of the VOCs reported in groundwater, only PCE, TCE, benzene, toluene, and ethylbenzene were detected and only TCE was detected above the drinking water MCL of 5 µg/L. PCE was detected in only one sample at a concentration of 0.86 µg/L from boring SBG-3. Similarly, TCE was detected in only one sample at a concentration of 22 µg/L from boring SBG-3, which is located near the southern perimeter of the property. Benzene, toluene, and ethylbenzene were each detected in SBG-2 and SBG-3

at maximum concentrations of 0.31 (< 1 µg/L MCL), 0.38 (< 150 µg/L MCL), and 0.22 µg/L (< 300 µg/L MCL), respectively.

The analytical results for grab groundwater samples indicate that the highest concentrations of VOCs were reported in boring SBG-3. Based on the data from soil and soil vapor samples, the results indicate that groundwater underlying the Site is not significantly impacted.

5. CONCLUSIONS

Geosyntec performed an investigation to further evaluate the presence of subsurface impacts based on the results of the Phase I Environmental Site Assessment and historical operations conducted at the subject property. The scope of the investigation included the advancement of thirty borings for the collection and analysis of soil, soil vapor, and grab groundwater samples.

Sufficient Site data have been obtained to reasonably characterize the nature and extent of soil, soil vapor, and groundwater and to assess the current and future potential health risks at the Site. Based on the findings of the subsurface site investigation, the conclusions are discussed below:

- The subsurface at the Site consists primarily of sand, gravelly sand, silty sand, and sandy silt from the surface to the explored depth of 125 feet bgs. In the southern portion of the Site, fine-grained layers at 21, 29, and 38 feet bgs exist. The fine-grained layers at these depths are 2 to 5 feet thick. The first encountered groundwater was observed in the borings at depths of 119 and 125.5 feet bgs.
- The results of the investigation indicate that chemicals associated with the past site use in soil are generally not present at concentrations exceeding residential RSLs (screening levels).
- The grab groundwater samples collected do not indicate the presence of VOCs or petroleum hydrocarbons in the groundwater. With the exception of a single detection of TCE (22 µg/L) in groundwater, the groundwater underlying the Site does not appear to be significantly impacted based on a comparison to drinking water MCLs. The single TCE detection may not be related to possible releases originating from the Site considering the lack of significant concentrations of TCE in soil and the PCE/TCE ratios observed in both soil and soil vapor during the investigation.
- The soil vapor samples collected at 5 and 15 feet bgs in the northern and southern portion of the Site detect VOCs concentrations. PCE is the primary VOC, and is present in soil vapor at concentrations exceeding the commercial CHHSL (603 µg/m^3). The elevated PCE concentrations were detected primarily near the former drycleaner area (located in the southern portion of the Site) and extend towards the western and southern property boundaries. PCE

concentrations in the central portion of the Site are below the commercial CHSSL and slightly above the commercial CHHSL in the northern portion of the site.

- The PCE concentrations at the auto repair area (located in the northern portion of the site) are in the range of 484 to 1,730 µg/m^3. TCE was not detected above the commercial CHHSL (1,770 µg/m^3).
- The PCE concentrations near the former drycleaner at the southern portion of the Site ranged from 967 to 49,700 µg/m^3. With the exception of one sample collected from boring SV-08 at 5 feet bgs PCE was detected at concentrations of 79,100 µg/m^3 (one case volume purge).
- Based on the results of the investigation and historical data, the lateral extent of PCE in soil vapor is generally characterized for commercial scenario except in the western and southern directions. The PCE soil vapor plume in these two directions appears to extend offsite. A machine shop is located directly to the west and a kitchen and bath store to the south. In the east, residences are located across a four lane public right-of-way. The PCE concentration at SV-11 located at the eastern property boundary detected 1,310 (above residential CHHSL of 180 µg/m^3). This should be further investigated to rule-out potential risk to offsite residences.
- The vertical PCE distribution in the soil vapor was generally uniform with minimal concentration change between the samples collected from 5 and 15 feet bgs. This is likely due to the high permeability coarse-grain soil that is present in the area facilitating advective soil vapor transport.
- Based on the PCE concentrations observed in 15 feet bgs samples, the vertical extent of the PCE in soil vapor is not defined. However, it is estimated that the presence of a fine-grained unit at 21 feet bgs will likely limit the vertical migration of PCE in soil vapor.

In summary, the principal exposure pathway of concern for chemicals detected at the Site is the migration of vapors from the subsurface through the soil column and into indoor air of the enclosed buildings. PCE is present in the subsurface at elevated concentrations in soil vapor. Chemical impacts to soil and groundwater do not appear to be significant.

6. RECOMMENDATIONS

Considering KP's plans to develop the Site to support a medical office building, Geosyntec recommends mitigating the potential for vapor intrusion under the oversight of an appropriate regulatory agency. The potential for vapor intrusion at the Site can be addressed either by risk management, active remediation, or by a combination of both methods. Risk management activities include designing future buildings so that the affected areas are left as open space, or utilizing engineering controls, such as a subslab ventilation/depressurization system. Remediation activities may include a soil vapor extraction (SVE) system that is designed to remediate subsurface soil by extracting soil vapors and treating aboveground. Excavation is likely not a cost-effective remediation approach because the extent of impacted soil is not well defined (and will be difficult to demarcate), and the naturally-occurring concentrations of arsenic in soil will drive disposal costs.

Based on the lithology (coarse-grain soil), magnitude, and distribution of PCE-impacted soil vapor found at the Site, Geosyntec recommends SVE as the remediation method to address the affected subsurface. Geosyntec estimate that a one-year operation of the SVE system under a temporary various-location permit would be sufficient to reduce the soil vapor concentrations to below risk-based screening levels or to levels where engineering controls could be used to mitigate the potential risk. An additional benefit of SVE is that the system will prevent any further offsite soil vapor migration.

The results also indicate that further definition of the lateral extent in western and southern directions, including the vertical extent, is necessary for mitigation design and regulatory agency acceptance and approval. It is also recommended to be further investigated offsite (east of the property) to rule-out potential risk to offsite residences

7. LIMITATIONS

The conclusions presented herein are professional opinions based solely upon the analytical data described in this report. They are intended exclusively for the purpose outlined herein and the Site location and project indicated. Geosyntec makes no warranties or guarantees as to the accuracy or completeness of information provided by others. The results reported herein are applicable to the time the sampling occurred and information provided by client at the time; changes in site conditions may occur. The services performed have been conducted in a manner consistent with the level of care ordinarily exercised by members of our profession practicing under similar conditions.

8. REFERENCES

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TABLES

Table 1a
Soil Analytical Summary - VOCs and TPH
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/kg)										Concentration (mg/kg)		
			Volatile Organic Compounds (VOCs) EPA Method 8260B										TPH-g EPA Method 8260B	Total Petroleum Hydrocarbons Diesel/Motor Oil Ranges EPA Method 8015B	
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	o-Xylene	p/m-Xylene	TPH-g	TPH-d	TPH-mo
SB-1	17-July-2013	5	52	<2.1	<1.0	<1.0	<1.0	2.3	4.1	2.3	0.71 J	1.6 J	NA	NA	NA
SB-2	17-July-2013	5	0.37 J	<2.0	<1.0	<1.0	<1.0	4.4	5.2	2.0	0.74 J	1.9 J	0.087 J	<5.0	<25
SB-2	17-July-2013	10	<0.99	<2.0	<0.99	<0.99	<0.99	3.7	3.7	1.3	<0.99	1.1 J	0.079 J	<5.0	<25
SB-2	17-July-2013	15	<0.98	<2.0	<0.98	<0.98	<0.98	2.9	3.3	1.4	<0.98	1.0 J	0.053 J	<5.0	<25
SB-3	17-July-2013	5	0.41 J	<1.9	<0.97	<0.97	<0.97	3.9	3.2	1.5	<0.97	0.99 J	0.057 J	<5.0	<25
SB-3-dup	17-July-2013	5	<0.95	<1.9	<0.95	<0.95	<0.95	2.7	3.3	1.8	<0.95	1.1 J	0.057 J	<5.0	<25
SB-3	17-July-2013	10	<0.99	<2.0	<0.99	<0.99	<0.99	3.5	3.0	1.3	<0.99	0.82 J	<0.24	<5.0	<25
SB-3	17-July-2013	15	<0.96	<1.9	<0.96	<0.96	<0.96	2.8	2.7	1.1	<0.96	0.74 J	0.055 J	<5.0	<25
SBG-1	21-June-2013	5	<1.1	<2.2	<1.1	<1.1	<1.1	1.0 J	0.58 J	<1.1	<1.1	<2.2	NA	NA	NA
SBG-1	21-June-2013	10	<1.1	<2.2	<1.1	<1.1	<1.1	2.2	2.4	1.2	<1.1	0.50 J	NA	NA	NA
SBG-1	21-June-2013	20	<0.97	<1.9	<0.97	<0.97	<0.97	2.8	2.7	1.4	<0.97	0.77 J	NA	NA	NA
SBG-1	21-June-2013	30	<1.0	<2.1	<1.0	<1.0	<1.0	2.2	3.0	0.25 J	<1.0	1.1 J	NA	NA	NA
SBG-1	21-June-2013	40	<1.1	<2.1	<1.1	<1.1	<1.1	1.5	4.6	4.7	<1.1	1.0 J	NA	NA	NA
SBG-1	21-June-2013	60	<0.92	<1.8	<0.92	<0.92	<0.92	2.0	4.6	3.1	0.65 J	1.5 J	NA	NA	NA
SBG-1	21-June-2013	90	<0.86	<1.7	<0.86	<0.86	<0.86	1.9	1.7	0.22 J	<0.86	0.61 J	NA	NA	NA
SBG-1	21-June-2013	110	<0.95	<1.9	<0.95	<0.95	<0.95	1.9	4.0	3.8	<0.95	0.92 J	NA	NA	NA
SBG-1	21-June-2013	120	<0.80	<1.6	<0.80	<0.80	<0.80	1.6	4.2	4.1	<0.80	0.92 J	NA	NA	NA
SBG-2	24-June-2013	60	<0.98	<2.0	<0.98	<0.98	<0.98	1.8	2.2	1.6	<0.98	0.78 J	0.057 J	<5.0	<25
SBG-2	25-June-2013	70	<0.80	<1.6	<0.80	<0.80	<0.80	0.27 J	<0.80	<0.80	<0.80	<1.6	<0.22	<5.0	<25
SBG-2-dup	25-June-2013	70	<0.79	<1.6	<0.79	<0.79	<0.79	0.17 J	<0.79	<0.79	<0.79	<1.6	<0.21	<5.0	<25
SBG-2	25-June-2013	100	<1.0	<2.0	<1.0	<1.0	<1.0	1.1	7.1	8.0	0.95 J	2.3	0.32	<5.0	<25
SBG-2	25-June-2013	110	<0.80	<1.6	<0.80	<0.80	<0.80	0.50 J	1.5	1.6	<0.80	0.43 J	0.080 J	<5.0	<25
SBG-3	20-June-2013	80	0.40 J	3.9	<0.75	<0.75	<0.75	1.6	0.95	0.22 J	<0.75	0.24 J	NA	NA	NA
SBG-3	20-June-2013	100	<0.84	0.46 J	<0.84	<0.84	<0.84	0.54 J	0.53 J	0.13 J	<0.84	0.24 J	NA	NA	NA
SBG-3	20-June-2013	120	<0.78	1.8	<0.78	<0.78	<0.78	0.37 J	0.92	0.78	<0.78	0.24 J	NA	NA	NA
SBG-3	20-June-2013	125	<0.93	<1.9	<0.93	<0.93	<0.93	3.2	5.2	2.5	0.56 J	1.6 J	NA	NA	NA
SBV-01	24-June-2013	5	<1.0	<2.0	<1.0	<1.0	<1.0	2.1	2.7	1.8	0.57 J	1.2 J	0.16 HD,J	47	9.5 HD,J
SBV-01	24-June-2013	12	<0.98	<2.0	<0.98	<0.98	<0.98	2.9	2.9	1.5	<0.98	1.0 J	<0.24	<5.0	<25
SBV-01	24-June-2013	20	<0.99	<2.0	<0.99	<0.99	<0.99	1.4	1.5	0.84 J	<0.99	0.53 J	<0.30	<5.0	<25
SBV-01	24-June-2013	31	<0.95	<1.9	<0.95	<0.95	<0.95	1.4	0.62 J	<0.95	<0.95	<1.9	<0.25	<5.0	<25
SBV-01	24-June-2013	38	<1.0	<2.1	<1.0	<1.0	<1.0	3.5	3.6	1.8	0.69 J	1.6 J	0.11 HD,J	2.1 HD,J	8.3 J

Table 1a
Soil Analytical Summary - VOCs and TPH
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/kg)										Concentration (mg/kg)		
			Volatile Organic Compounds (VOCs) EPA Method 8260B										TPH-g EPA Method 8260B	Total Petroleum Hydrocarbons Diesel/Motor Oil Ranges EPA Method 8015B	
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	o-Xylene	p/m-Xylene	TPH-g	TPH-d	TPH-mo
SBV-02	24-June-2013	5	1.1	<1.8	<0.92	<0.92	<0.92	2.1	2.3	1.1	<0.92	1.0 J	<0.25	11	43
SBV-02	24-June-2013	9	<1.0	<2.0	<1.0	<1.0	<1.0	3.1	3.1	1.5	<1.0	1.3 J	<0.26	<5.0	<25
SBV-02	24-June-2013	20	<1.0	<2.0	<1.0	<1.0	<1.0	2.1	2.0	1.2	<1.0	0.71 J	<0.26	<5.0	<25
SBV-02	24-June-2013	30	<0.85	<1.7	<0.85	<0.85	<0.85	0.81 J	0.55 J	<0.85	<0.85	0.25 J	<0.22	<5.0	<25
SBV-03	25-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SBV-03	25-June-2013	5	<0.95	<1.9	<0.95	<0.95	<0.95	2.9	3.0	1.6	<0.95	1.1 J	0.060 J	2.3 HD,J	38
SBV-03	25-June-2013	9	<0.88	<1.8	<0.88	<0.88	<0.88	3.1	2.8	1.4	<0.88	0.99 J	0.049 J	<5.0	<25
SBV-03	25-June-2013	20	<1.1	<2.3	<1.1	<1.1	<1.1	2.3	3.0	1.9	<1.1	1.0 J	0.052 J	<5.0	<25
SBV-03	25-June-2013	30	<0.88	<1.8	<0.88	<0.88	<0.88	1.1	1.1	0.50 J	<0.88	0.60 J	<0.22	<5.0	<25
SBV-04	25-June-2013	5	0.25 J	<1.6	<0.80	<0.80	<0.80	5.6	6.4	2.3	0.73 J	2.0	0.059 J	4.5 HD,J	57
SBV-04	25-June-2013	9	<0.93	<1.9	<0.93	<0.93	<0.93	2.7	2.7	1.4	<0.93	0.86 J	<0.23	<5.0	<25
SBV-04	25-June-2013	20	<0.99	<2.0	<0.99	<0.99	<0.99	0.86 J	0.60 J	<0.99	<0.99	<2.0	<0.22	<5.0	<25
SBV-04-dup	25-June-2013	20	<0.89	<1.8	<0.89	<0.89	<0.89	0.54 J	<0.89	<0.89	<0.89	<1.8	NA	NA	NA
SBV-04	25-June-2013	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.24	<5.0	<25
SBV-04	25-June-2013	37	<1.1	<2.2	<1.1	<1.1	<1.1	1.2	0.91 J	0.25 J	<1.1	0.55 J	<0.21	<5.0	<25
SBV-05	24-June-2013	2	<0.79	<1.6	<0.79	<0.79	<0.79	0.48 J	<0.79	0.16 J	<0.79	<1.6	<0.20	2.9 HD,J	16
SBV-05	24-June-2013	5	<0.78	<1.6	<0.78	<0.78	<0.78	0.34 J	<0.78	<0.78	<0.78	<1.6	<0.20	<5.0	<25
SBV-05	24-June-2013	9	<0.91	<1.8	<0.91	<0.91	<0.91	2.4	2.4	1.1	<0.91	0.78 J	0.053 J	<5.0	15
SBV-05	25-June-2013	19	<0.89	<1.8	<0.89	<0.89	<0.89	1.0	3.3	3.5	<0.89	1.0 J	0.069 J	<5.0	<25
SBV-05-dup	25-June-2013	19	<0.92	<1.8	<0.92	<0.92	<0.92	2.0	3.1	2.0	<0.92	0.93 J	0.076 J	<5.0	<25
SBV-05	25-June-2013	29	<0.84	<1.7	<0.84	<0.84	<0.84	0.79 J	0.47 J	<0.84	<0.84	<1.7	<0.20	<5.0	<25
SBV-06	21-June-2013	5	2.6	0.28 J	<0.89	<0.89	<0.89	1.2	1.7	0.89 J	<0.89	0.73 J	0.082 HD,J	2.3 HD,J	11
SBV-06	21-June-2013	12	6.5	0.94 J	<0.92	<0.92	<0.92	1.6	1.8	1.1	<0.92	0.51 J	0.066 HD,J	<5.0	<25
SBV-06	21-June-2013	21	7.1	1.7	<0.86	<0.86	<0.86	1.6	1.8	0.96	<0.86	0.50 J	0.059 HD,J	<5.0	<25
SBV-06	21-June-2013	29	6.3	1.7 J	<1.0	<1.0	<1.0	2.3	2.5	1.2	<1.0	0.66 J	NA	NA	NA
SBV-06	21-June-2013	40	1.5	1.8	<0.90	<0.90	<0.90	0.14 J	<0.90	<0.90	<0.90	<1.8	NA	NA	NA
SBV-07	20-June-2013	5	2.9	<1.7	<0.87	<0.87	<0.87	0.91	0.85 J	0.33 J	<0.87	<1.7	NA	NA	NA
SBV-07	20-June-2013	11	1.2	<1.7	<0.87	<0.87	<0.87	1.2	1.3	0.56 J	<0.87	0.37 J	NA	NA	NA
SBV-07	20-June-2013	21	2.2	<1.9	<0.93	<0.93	<0.93	2.6	2.5	1.1	<0.93	0.63 J	NA	NA	NA
SBV-07	20-June-2013	30	1.6	<1.6	<0.79	<0.79	<0.79	2.0	2.2	1.1	<0.79	0.53 J	NA	NA	NA
SBV-07	20-June-2013	40	0.74 J	<1.7	<0.83	<0.83	<0.83	0.12 J	<0.83	<0.83	<0.83	<1.7	NA	NA	NA

Table 1a
Soil Analytical Summary - VOCs and TPH
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/kg)										Concentration (mg/kg)		
			Volatile Organic Compounds (VOCs) EPA Method 8260B										TPH-g EPA Method 8260B	Total Petroleum Hydrocarbons Diesel/Motor Oil Ranges EPA Method 8015B	
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	o-Xylene	p/m-Xylene	TPH-g	TPH-d	TPH-mo
SV-01	21-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-01	21-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-02	25-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-02	25-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-03	25-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-03	25-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-04	24-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-04	24-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-04-dup	24-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-05	24-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-05	24-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-06	25-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-06	25-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-07	20-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-07	20-June-2013	5	<0.99	<2.0	<0.99	<0.99	<0.99	0.89 J	0.96 J	0.44 J	<0.99	<2.0	NA	NA	NA
SV-07	20-June-2013	15	<0.88	<1.8	<0.88	<0.88	<0.88	1.0	1.1	0.61 J	<0.88	0.31 J	NA	NA	NA
SV-08	20-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-08	20-June-2013	5	2.0	0.50 J	<0.98	<0.98	<0.98	1.2	1.3	0.63 J	<0.98	0.30 J	NA	NA	NA
SV-08-dup	20-June-2013	5	1.4	<1.7	<0.86	<0.86	<0.86	0.93	1.1	0.62 J	<0.86	0.35 J	NA	NA	NA
SV-08	20-June-2013	10	1.9	0.71 J	<0.96	<0.96	<0.96	1.1	1.5	0.98	<0.96	0.41 J	NA	NA	NA
SV-09	21-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-09	21-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-10	20-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-10	20-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-11	21-June-2013	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-11	21-June-2013	5	<0.89	<1.8	<0.89	<0.89	<0.89	5.4	5.9	2.1	0.84 J	2.0	NA	NA	NA
SV-11	21-June-2013	12	<0.85	<1.7	<0.85	<0.85	<0.85	0.60 J	0.84 J	0.59 J	<0.85	<1.7	NA	NA	NA
SV-12	15-July-2013	5	13	<2.1	<1.1	<1.1	<1.1	6.2	3.5	2.2	<1.1	1.4 J	NA	NA	NA
SV-12	15-July-2013	12.5	4.7	<2.1	<1.0	<1.0	<1.0	2.6	2.6	1.4	<1.0	0.93 J	NA	NA	NA
SV-13	16-July-2013	5	19	<2.2	<1.1	<1.1	<1.1	4.2	5.0	1.8	<1.1	1.7 J	NA	NA	NA

Table 1a
Soil Analytical Summary - VOCs and TPH
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/kg)										Concentration (mg/kg)		
			Volatile Organic Compounds (VOCs) EPA Method 8260B										TPH-g EPA Method 8260B	Total Petroleum Hydrocarbons Diesel/Motor Oil Ranges EPA Method 8015B	
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	o-Xylene	p/m-Xylene	TPH-g	TPH-d	TPH-mo
SV-14	16-July-2013	5	13	<2.2	<1.1	<1.1	<1.1	2.5	3.1	1.7	<1.1	1.2 J	NA	NA	NA
SV-14-dup	16-July-2013	5	12	<2.3	<1.1	<1.1	<1.1	2.0	2.7	1.5	<1.1	0.90 J	NA	NA	NA
SV-15	16-July-2013	5	43	<2.2	<1.1	<1.1	<1.1	2.0	2.7	1.5	<1.1	0.94 J	NA	NA	NA
SV-16	15-July-2013	5	9.4	<1.9	<0.97	<0.97	<0.97	2.9	3.4	2.0	0.56 J	1.4 J	NA	NA	NA
SV-17	16-July-2013	5	9.1	<2.0	<1.0	<1.0	<1.0	2.3	2.6	1.4	<1.0	1.3 J	NA	NA	NA
SV-17	16-July-2013	15	15	<1.9	<0.94	<0.94	<0.94	3.5	3.0	1.7	<0.94	1.0 J	NA	NA	NA
Residential RSLs[3]			**2.20E+04**	**9.10E+02**	**1.60E+05**	**1.50E+05**	**6.00E+01**	**1.10E+03**	**5.00E+06**	**5.40E+03**	**6.90E+05**	**5.90E+05**	**1.00E+02**	**1.00E+02**	**1.00E+02**

Notes:

1. < indicates that the compound was not detected at or above the laboratory reporting limit shown.
2. NA indicates that the compound was not analyzed.
3. U.S. EPA Regional Screening Levels (RSLs; May 2013) for residential land use based on direct contact exposures. For TPH-related constituents, a "ceiling value" was used based on the California Regional Water Quality Control Board, San Francisco Bay, Environmental Screening Levels, May 2013.

Abbreviations:

ft bgs = feet below ground surface
VOCs = volatile organic compounds
PCE = Tetrachloroethene
TCE = Trichloroethene
c-DCE = cis-1,2-Dichloroethene
t-DCE = trans-1,2-Dichloroethene
VC = Vinyl Chloride
TPH-g = total petroleum hydrocarbons quantified as gasoline
TPH-d = total petroleum hydrocarbons quantified as diesel
TPH-mo = total petroleum hydrocarbons quantified as motor oil
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
J = detected above method detection limit but below reporting limit, estimated value

Table 1b
Soil Analytical Summary - Metals
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (mg/kg)															
			Metals EPA Method 6010B															
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SBV-03	25-June-2013	2	<0.750	4.76	104	0.395	1.85	18.7	7.92	17.0	3.64	3.13	24.5	<0.750	<0.250	<0.750	41.7	48.6
SBV-03	25-June-2013	5	<0.750	4.37	99.2	0.364	1.76	17.5	7.16	15.2	3.33	3.32	21.9	<0.750	<0.250	<0.750	38.3	44.2
SBV-05	24-June-2013	2	<0.750	5.58	153	0.464	1.77	22.4	9.34	25.4	10.6	2.46	28.2	<0.750	<0.250	<0.750	37.0	66.2
SBV-05	24-June-2013	5	<0.750	6.28	160	0.474	1.90	24.5	9.48	26.0	14.3	2.63	29.1	<0.750	<0.250	<0.750	38.9	68.9
SV-01	21-June-2013	2	<0.750	3.71	97.4	0.320	1.81	15.4	9.26	13.1	3.23	2.87	20.9	<0.750	<0.250	<0.750	34.7	40.6
SV-01	21-June-2013	5	<0.750	4.11	106	0.343	1.85	16.9	7.11	14.4	3.17	3.10	21.9	<0.750	<0.250	<0.750	37.9	41.7
SV-02	25-June-2013	2	<0.750	4.29	93.5	0.326	1.55	15.0	6.65	14.1	4.17	2.76	19.9	<0.750	<0.250	<0.750	33.1	43.8
SV-02	25-June-2013	5	<0.750	3.94	114	0.381	1.88	18.8	7.67	16.1	3.55	3.43	24.2	<0.750	<0.250	<0.750	41.4	45.8
SV-03	25-June-2013	2	<0.750	4.86	113	0.402	1.90	24.6	8.24	18.6	6.22	3.23	25.4	<0.750	<0.250	<0.750	41.3	54.4
SV-03	25-June-2013	5	<0.750	5.25	118	0.432	2.10	20.5	8.52	19.2	3.99	3.74	27.6	<0.750	<0.250	<0.750	44.8	51.8
SV-04	24-June-2013	2	<0.750	4.99	112	0.400	2.10	19.3	8.16	17.5	3.80	3.55	25.5	<0.750	<0.250	<0.750	42.8	49.4
SV-04	24-June-2013	5	<0.750	4.39	102	0.371	1.94	17.7	7.43	15.9	3.46	3.22	23.2	<0.750	<0.250	<0.750	40.4	44.9
SV-04-dup	24-June-2013	5	<0.750	4.46	98.6	0.342	1.97	17.0	6.94	15.1	3.17	4.24	23.4	<0.750	<0.250	<0.750	39.4	43.1
SV-05	24-June-2013	2	<0.750	3.44	95.5	0.323	1.58	15.9	7.46	14.0	2.98	2.62	19.8	<0.750	<0.250	<0.750	35.4	42.4
SV-05	24-June-2013	5	<0.750	4.47	101	0.370	2.07	18.0	6.95	15.0	3.26	3.00	22.8	<0.750	<0.250	<0.750	41.7	43.4
SV-06	25-June-2013	2	<0.750	2.59	46.3	NA	1.04	8.45	3.12	6.06	1.33	1.73	9.53	<0.750	<0.250	<0.750	19.5	20.3
SV-06	25-June-2013	2	NA	NA	NA	0.167 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-06	25-June-2013	5	NA	NA	NA	0.138 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-06	25-June-2013	5	<0.750	1.82	38.4	NA	0.934	5.86	2.18	4.60	1.01	1.73	7.51	<0.750	<0.250	<0.750	16.8	15.1
SV-07	20-June-2013	2	<0.750	4.76	110	0.447	1.82	19.6	8.42	16.0	4.04	2.64	24.9	<0.750	<0.250	<0.750	43.9	47.3
SV-07	20-June-2013	5	<0.750	2.79	73.4	0.278	1.20	12.2	5.51	9.20	2.41	2.01	15.1	<0.750	<0.250	<0.750	29.5	32.4
SV-08	20-June-2013	2	<0.750	4.36	112	0.392	1.92	19.7	7.78	15.9	3.42	2.92	24.7	<0.750	<0.250	<0.750	44.4	46.1
SV-08	20-June-2013	5	<0.750	2.88	68.3	0.261	1.48	13.9	5.32	9.66	2.19	1.90	15.1	<0.750	<0.250	<0.750	33.2	30.1
SV-08-dup	20-June-2013	5	<0.750	2.90	73.3	0.272	1.23	13.1	5.31	8.95	2.26	2.23	15.6	<0.750	<0.250	<0.750	30.7	31.1
SV-09	21-June-2013	2	<0.750	3.66	83.7	0.294	1.53	14.2	5.88	12.2	3.01	2.59	18.1	<0.750	<0.250	<0.750	31.3	39.4
SV-09	21-June-2013	5	<0.750	1.76	42.3	NA	0.853	6.73	2.59	5.13	1.17	1.52	8.55	<0.750	<0.250	<0.750	16.2	17.6
SV-09	21-June-2013	5	NA	NA	NA	0.138 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-10	20-June-2013	2	<0.750	2.36	53.6	NA	1.18	8.98	3.79	7.10	1.57	1.72	11.2	<0.750	<0.250	<0.750	22.8	24.4
SV-10	20-June-2013	2	NA	NA	NA	0.201 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-10	20-June-2013	5	<0.750	2.09	49.0	NA	0.951	8.52	3.36	5.55	1.25	2.03	10.7	<0.750	<0.250	<0.750	19.8	20.9
SV-10	20-June-2013	5	NA	NA	NA	0.164 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-11	21-June-2013	2	<0.750	3.12	67.4	0.266	1.21	12.0	5.48	9.39	2.39	2.32	15.0	<0.750	<0.250	<0.750	27.8	31.2
SV-11	21-June-2013	5	NA	NA	NA	0.223 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SV-11	21-June-2013	5	<0.750	2.35	66.0	NA	1.09	10.5	4.69	7.79	2.01	2.28	12.5	<0.750	<0.250	<0.750	23.5	27.8
Residential CHHSLs[2]			**3.00E+01**	**7.00E-02**	**5.20E+03**	**1.50E+02**	**1.70E+00**	**1.00E+05**	**6.60E+02**	**3.00E+03**	**1.50E+02**	**3.80E+02**	**1.60E+03**	**3.80E+02**	**3.80E+02**	**5.00E+00**	**5.30E+02**	**2.30E+04**

Notes:

1. < indicates that the compound was not detected at or above the laboratory reporting limit shown.
2. CHHSLs from Table 1, California EPA "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties", January 2005.

Abbreviations:

ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
J = detected above method detection limit but below reporting limit, estimated value

Table 2
Soil Vapor Analytical Summary
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/m³)									
			Volatile Organic Compounds (VOCs) and Total Petroleum Hydrocarbons-Gasoline Range EPA Method 8260B									
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-g
SBV-01	26-June-2013	5	**820**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<80.0
SBV-02	26-June-2013	5	**1,730**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<80.0
SBV-02-REP	26-June-2013	5	**1,640**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-03	26-June-2013	5	**1,430**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<80.0
SBV-03	26-June-2013	15	**1,170**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-04	26-June-2013	5	**1,100**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<80.0
SBV-05	26-June-2013	5	**443**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<80.0
SBV-05	26-June-2013	15	**484**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-06	25-June-2013	5	**49,300**	**2,490**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-06	26-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	<80.0
SBV-06-dup	25-June-2013	5	**48,400**	**2,080**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-06	25-June-2013	15	**40,200**	**4,860**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-07	25-June-2013	5	**24,500**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SBV-07	25-June-2013	15	**28,500**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-01	26-June-2013	5	**1,130**	17.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-02	26-June-2013	5	168	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-03	26-June-2013	5	**405**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-04	25-June-2013	5	**250**	35.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-05	25-June-2013	5	**241**	21.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-06	25-June-2013	5.5	105	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-07	25-June-2013	8	**860**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-07	25-June-2013	15	**2,650**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-08	25-June-2013	5	**79,100**	**38,200**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-08	25-June-2013	15	**49,400**	**38,600**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-09	26-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	<80.0
SV-09	25-June-2013	5	**49,700**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA

Table 2
Soil Vapor Analytical Summary
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Depth (ft bgs)	Concentration (µg/m³)									
			Volatile Organic Compounds (VOCs) and Total Petroleum Hydrocarbons-Gasoline Range EPA Method 8260B									
			PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-g
SV-10	26-June-2013	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	<80.0
SV-10	25-June-2013	5	**24,900**	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-11	25-June-2013	5	**1,310**	30.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-11	25-June-2013	15	**967**	31.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-12	18-July-2013	5	**17,300**	123	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-13	18-July-2013	6	**31,700**	124	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-14	18-July-2013	8	**32,500**	518	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-15	18-July-2013	4.5	**32,900**	168	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-16D	18-July-2013	9	**38,000**	494	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-16S	18-July-2013	5	**22,700**	403	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-17D	18-July-2013	13.5	**32,900**	140	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-17D-dup	18-July-2013	13.5	**30,000**	140	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
SV-17S	18-July-2013	5	**25,500**	125	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	<8.0	NA
Commercial CHHSLs			**603**	**1,770**	**44,400**	**88,700**	**44.8**	**122**	**378,000**	**postponed [1]**	**879,000**	**n/a**
Residential CHHSLs			**180**	**528**	**15,900**	**31,900**	**13.3**	**36.2**	**135,000**	**420**	**315,000**	**370,000**

Notes:

CHHSLs = California Human Health Screening Levels (CHHSLs) for shallow (5 feet below ground surface) soil gas for residential or commercial/Industrial land use as noted (California Environmental Protection Agency, 2005, Table 2).
Detections in bold represent concentration at or above the residential CHHSL for that compound.
1. For xylenes, the most conservative CHHSLs is used as a screening level
2. < indicates that the compound was not detected at or above the laboratory reporting limit shown.
3. NA indicates that the compound was not analyzed.

Abbreviations:

CHHSL = California Human Health Screening Level
VOCs = volatile organic compounds
PCE = Tetrachloroethene
TCE = Trichloroethene
c-DCE = cis-1,2-Dichloroethene
t-DCE = trans-1,2-Dichloroethene
VC = Vinyl Chloride
TPH-g = total petroleum hydrocarbons quantified as gasoline
µg/m³ = micrograms per cubic meter of air

Table 3
Groundwater Analytical Summary
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Sample Location	Sample Date	Concentration (µg/L)												
		Volatile Organic Compounds (VOCs) and Total Petroleum Hydrocarbons[-Gasoline Range] EPA Method 8260B											Total Petroleum Hydrocarbons [Diesel/Motor Oil Ranges] EPA Method 8015B	
		PCE	TCE	c-DCE	t-DCE	Vinyl Chloride	TPH-g	Benzene	Toluene	Ethylbenzene	o-Xylene	p/m-Xylene	TPH-d	TPH-mo
SBG-1	24-June-2013	<1.0	<1.0	<1.0	<1.0	<0.50	<100	<0.50	<1.0	<1.0	<1.0	<1.0	<500	<2,500
SBG-2	25-June-2013	<1.0	<1.0	<1.0	<1.0	<0.50	<100	0.30	0.33	0.15	<1.0	<1.0	<500	<2,500
SBG-2-dup	25-June-2013	<1.0	<1.0	<1.0	<1.0	<0.50	<100	0.31	0.35	0.16	<1.0	<1.0	<500	<2,500
SBG-3	20-June-2013	0.86	22	<1.0	<1.0	<0.50	<100	0.26	0.38	0.22	<1.0	<1.0	<500	<2,500
MCLs		**5**	**5**	**6**	**10**	**0.5**	**NE**	**1**	**150**	**300**	**-**	**-**	**NS**	**NS**

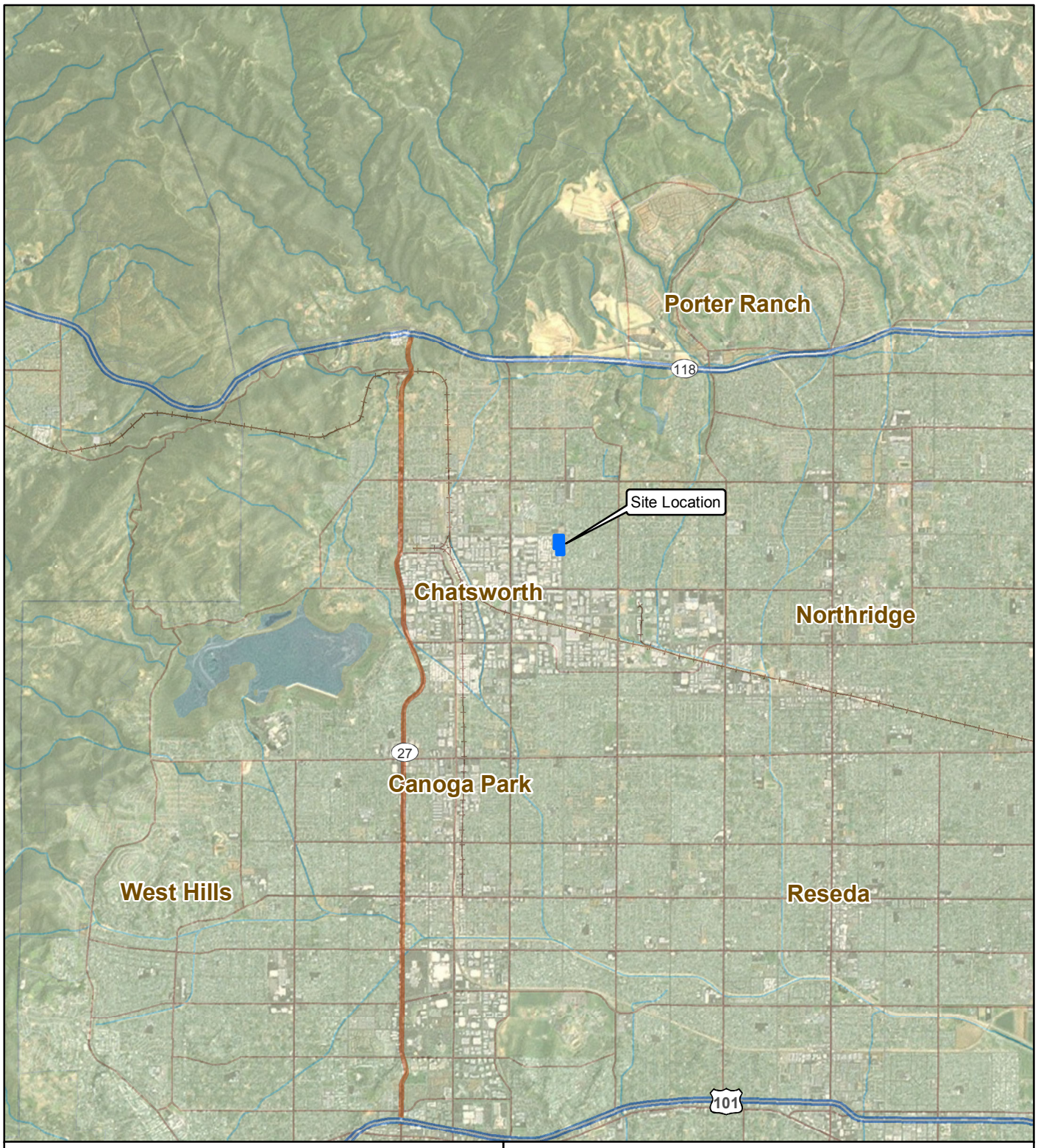
Notes:

1. < indicates that the compound was not detected at or above the laboratory reporting limit shown.

Abbreviations:

PCE = Tetrachloroethene
TCE = Trichloroethene
c-DCE = cis-1,2-Dichloroethene
t-DCE = trans-1,2-Dichloroethene
TPH-g = total petroleum hydrocarbons quantified as gasoline
TPH-d = total petroleum hydrocarbons quantified as diesel
TPH-mo = total petroleum hydrocarbons quantified as motor oil
µg/L = micrograms per liter
MCLs = California Department of Public Health's Maximum Contaminant Levels for drinking water
NS = not sampled

FIGURES



Legend



N

Miles
0 0.25 0.5 1

Aerial Source: Google Earth, 25 May 2009

Site Location
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Geosyntec consultants

WR1767	September 2013

Figure
1

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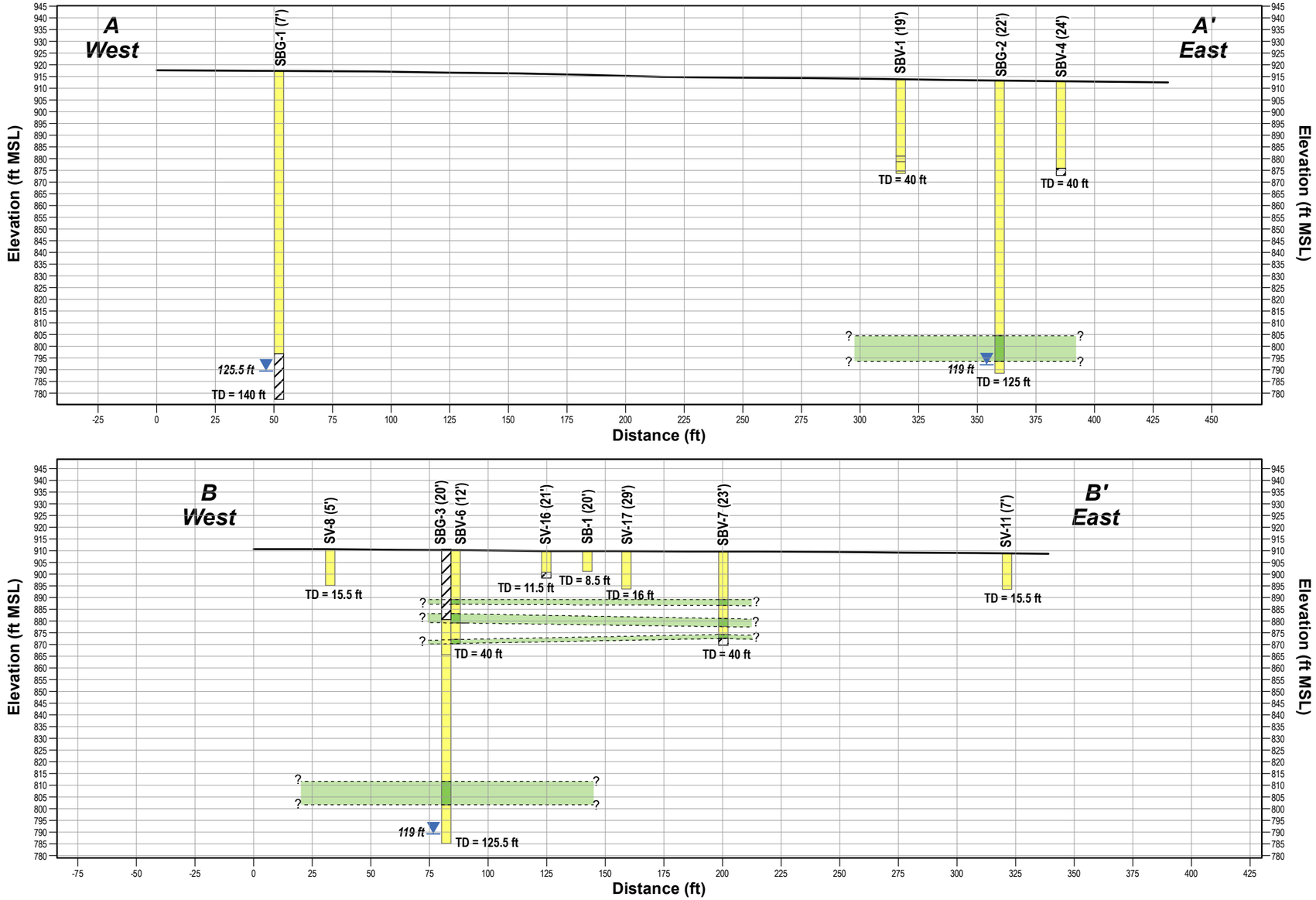

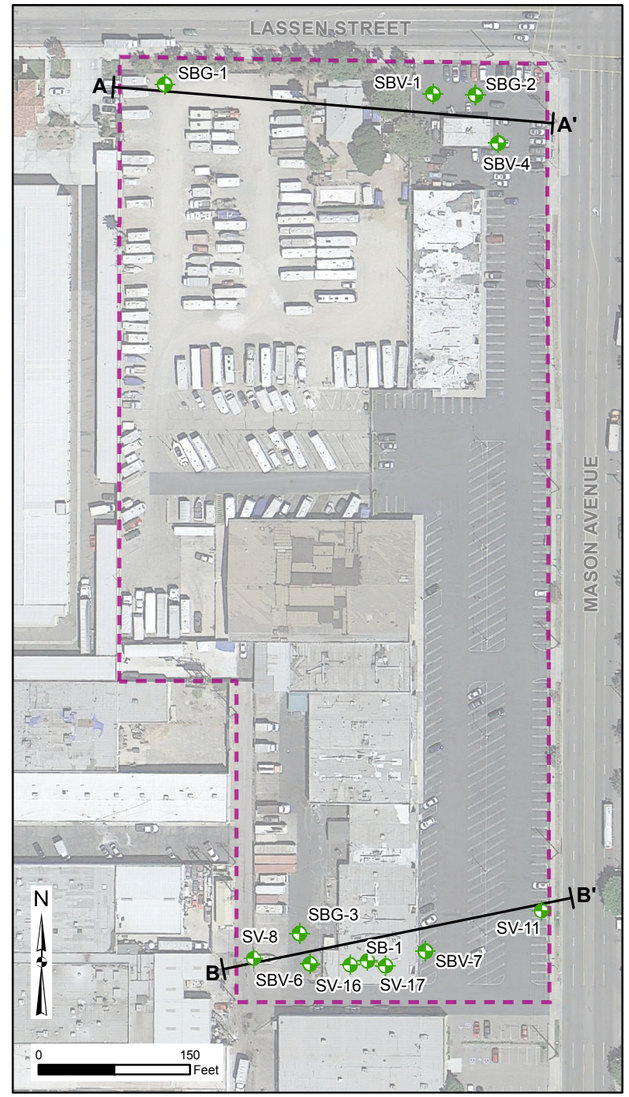

Legend

SBV-7 (23') - Distance Projected to Cross-Section

\- Boring Location

Boring Log

- Coarse-grained lithologies (dominated by sand: SP, SW, SM, SP-SM, SW-SM)
- Fine-grained lithologies (dominated by silt/clay: ML, CL, CH)
- No Recovery/Not Logged

119 ft ▼ First Encountered Groundwater

? ----- Lithology Boundary

Notes:
ft MSL = feet above mean sea level
Image Source - Google Earth, August 2012
TD = total depth (ft below ground surface)

50 / 0 / Feet / 0 / 50

Cross-Sections A-A' and B-B'
Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Geosyntec consultants

WR1767 | September 2013

Figure 2

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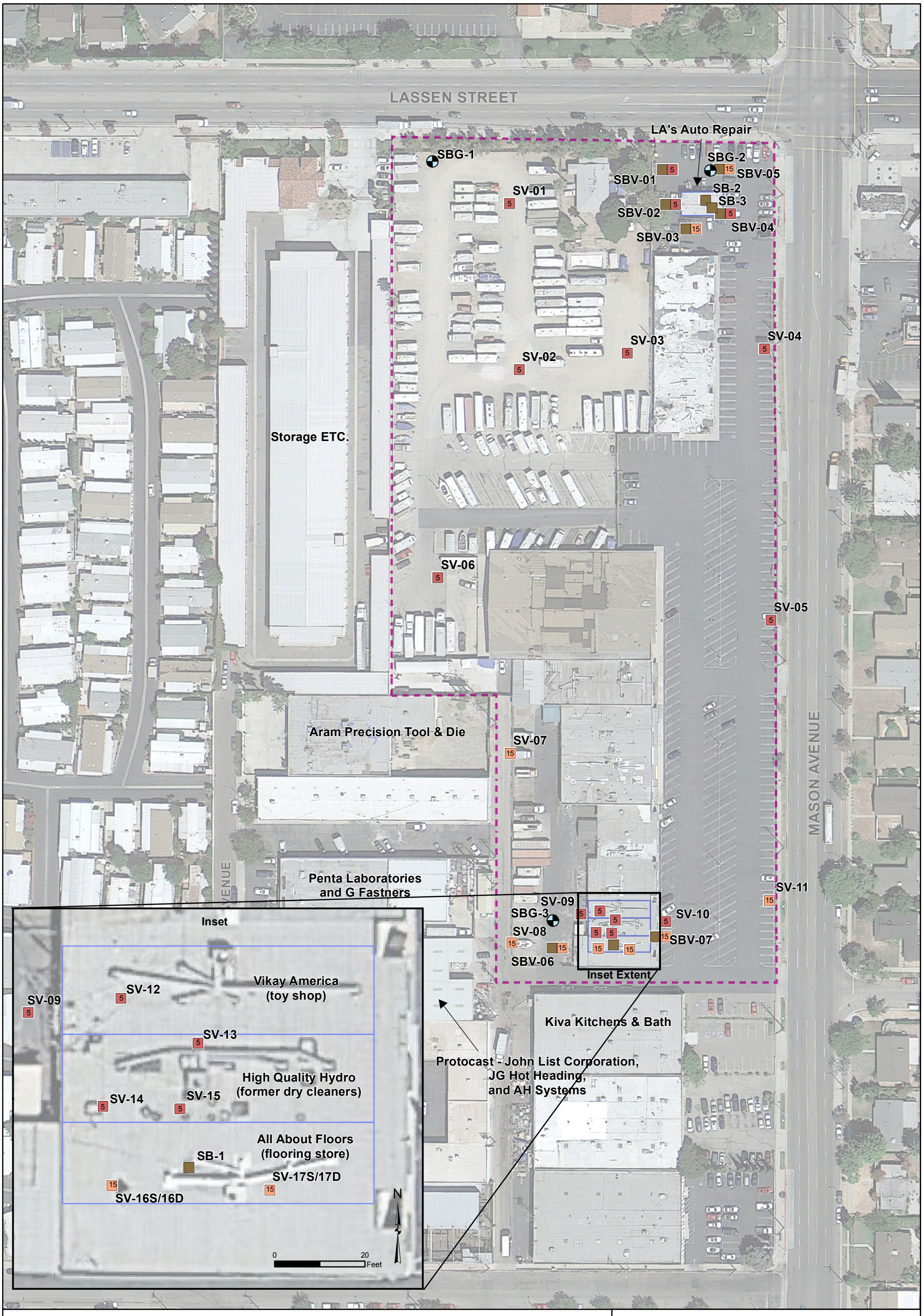

Legend

- Grab Groundwater Sample Location
- 5 — Soil Vapor Probe at approximately 5 ft depth
- 15 — Soil Vapor Probes set at approximately 5 ft and 15 ft depths
- Soil Boring Location
- Site Boundary

Sample Locations

Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Geosyntec consultants

Figure 3

WR1767 | September 2013

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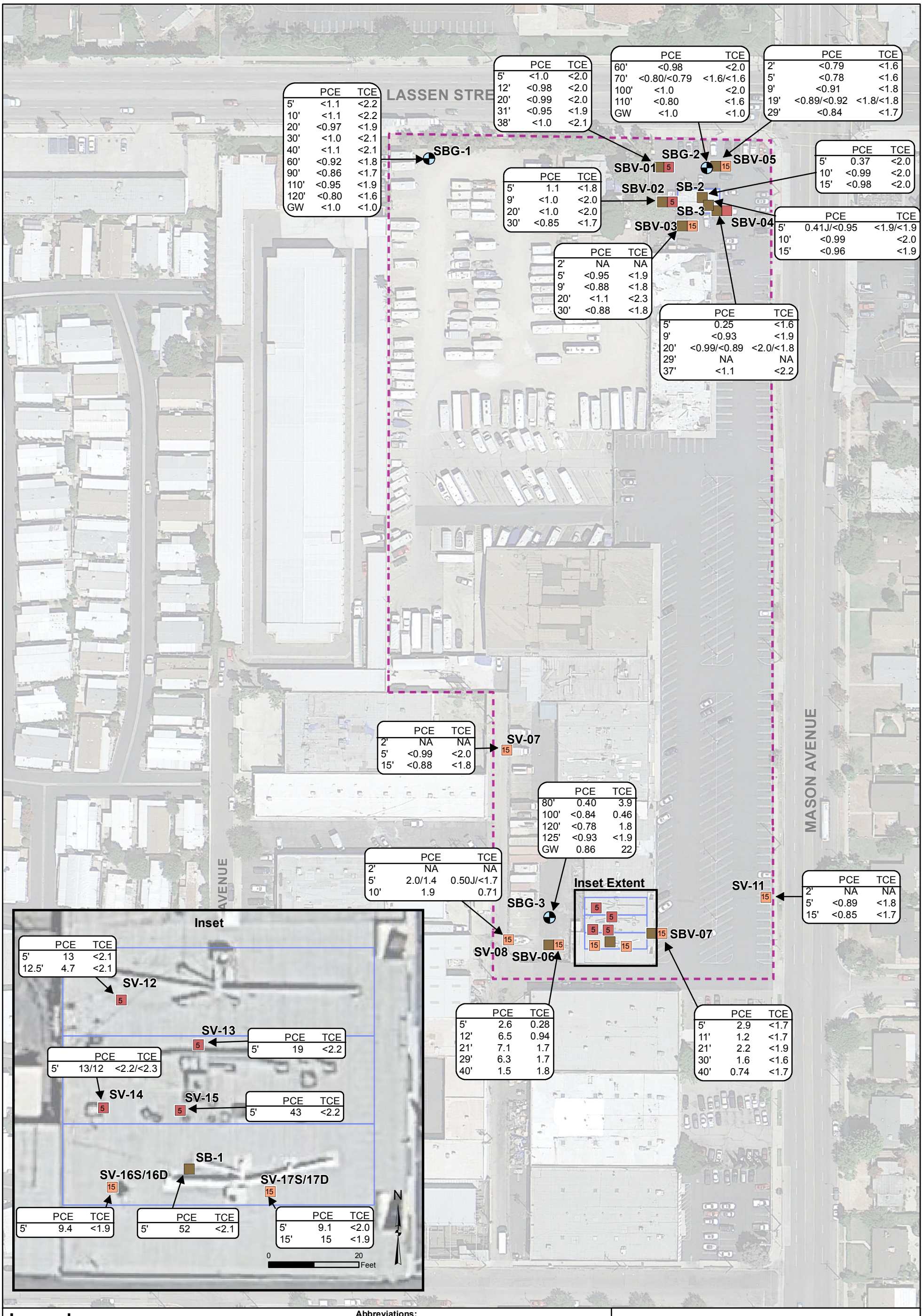

Legend

- Grab Groundwater Sample Location
- Soil Boring Location
- Site Boundary

Depth of soil sample - PCE 80' 0.40; 100' <0.84; 120' <0.78; 125' <0.93 / TCE 3.9; 0.46; 1.8; <1.9 - Soil result

Groundwater sample - PCE GW 0.86 / TCE 22 - Groundwater result

Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
GW = Groundwater
ug/L = Micrograms per liter
ug/kg = Micrograms per kilogram
J = detected above method detection limit but below reporting limit, estimated value shown
< - indicates that the compound was not detected at or above the laboratory reporting limit shown.
ft = feet

Notes:
All soil boring results are reported in in ug/kg.
All groundwater results are reported in ug/L.

Soil Boring and Groundwater Analytical Map PCE and TCE

Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Geosyntec consultants

Figure 4

WR1767 | September 2013

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LASSEN STREET

MASON AVENUE

	5ft
PCE	820
TCE	<8.0

	5ft	15ft
PCE	443	484
TCE	<8.0	<8.0

SBV-01 5

SBV-05 15

SV-01 5

	5ft
PCE	1,130
TCE	17.0

SBV-02 5

SBV-04 5

SBV-03 15

	5ft
PCE	1,100
TCE	<8.0

	5ft
PCE	1,730
TCE	<8.0

	5ft	15ft
PCE	1,430	1,170
TCE	<8.0	<8.0

SV-03 5

SV-04 5

SV-02 5

	5ft
PCE	250
TCE	35.0

	5ft
PCE	168
TCE	<8.0

	5ft
PCE	405
TCE	<8.0

SV-06 5

	5.5ft
PCE	105
TCE	<8.0

SV-05 5

	5ft
PCE	241
TCE	21.0

	8ft	15ft
PCE	860	2,650
TCE	<8.0	<8.0

SV-07 15

	5ft
PCE	49,700
TCE	<8.0

	5ft
PCE	24,900
TCE	<8.0

	5ft	15ft
PCE	79,100	49,400
TCE	38,200	38,600

SV-09 5

SV-10 5

SV-08 15

SBV-07 15

SBV-06 15

SV-11 15

	5ft	15ft
PCE	1,310	967
TCE	30.0	31.0

Inset Extent

	5ft	15ft
PCE	49,300 / 48,400	40,200
TCE	2,490 / 2,080	4,860

	5ft	15ft
PCE	24,500	28,500
TCE	<8.0	<8.0

Inset

	5ft
PCE	17,300
TCE	123

SV-12

SV-09

	6ft
PCE	31,700
TCE	124

SV-13

	8ft
PCE	32,500
TCE	518

SV-14

SV-15

	4.5ft
PCE	32,900
TCE	168

SV-16S/16D

SV-17S/17D

	5ft	9ft
PCE	22,700	38,000
TCE	403	494

	5ft	13.5ft
PCE	25,500	32,900 / 30,000
TCE	125	140 / 140

N

0 20 Feet

Legend

- 5 — Soil Vapor Probe at approximately 5 ft depth
- 15 — Soil Vapor Probes set at approximately 5 ft and 15 ft depths
- Soil Boring Location
- Site Boundary

	5ft	9ft	
PCE	22,700	38,000	- Depth of soil vapor sample
TCE	403	494	- Soil vapor result

0 100 Feet

N

Abbreviations:
PCE = Tetrachloroethene
TCE = Trichloroethene
ug/kg = Micrograms per kilogram
< - indicates that the compound was not detected at or above the laboratory reporting limit shown.
ft = feet

Note:
All soil boring results are reported in in ug/kg.

Soil Vapor Analytical Map

Kaiser Foundation Health Plan
Lassen St. and Mason Ave.
Chatsworth, California

Geosyntec consultants

Figure 5

WR1767 | September 2013

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APPENDIX A

Boring Logs

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SB-1 **SHEET** 1 **OF** 1
START DATE 7/17/2013 **ELEVATION DATA**
FINISH DATE 7/17/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 8.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER**

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete							12:30	Hand auger to 5 ft bgs
	Silty SAND (SM); dark brown (10YR 3/3); moist; fine gravel, fine sand, silt [5% gravel, 65% sand, 30% fines]; non-plastic; very loose								
	Well Graded SAND with silt and gravel (SW-SM); yellowish brown (10YR 5/6); moist; fine gravel, fine to coarse sand, silt [15, 75, 10]; non-plastic; loose						0.5	12:35	
5				SB-1-05		40	0.4	12:40	Begin Direct Push
	Well Graded SAND with gravel (SW); brownish yellow (10YR 6/6); moist; fine to coarse gravel, fine to coarse sand [25, 75, 0]; non-plastic; dense								
							0.4	13:15	Refusal at 8.5 ft bgs
	BOREHOLE TERMINATED TD = 8.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 2"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/22/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SB-2 **SHEET** 1 **OF** 1
START DATE 7/17/2013
FINISH DATE 7/17/2013
LOCATION Chatsworth, CA
PROJECT KP Chatsworth
PROJECT NUMBER WR1767/02
ELEVATION DATA
GROUND SURFACE
DATUM
TOTAL DEPTH 15 ft
DEPTH TO WATER

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete							07:25	Hand auger to 5 ft bgs
	Silty SAND (SM); very dark grayish brown (10YR 3/2); dry; fine gravel, fine sand, silt [5% gravel, 65% sand, 30% fines]; non-plastic; loose						0.2	07:27	
							0.2	07:30	
5	@ 5 ft color change to yellowish brown (10YR 5/4); fine gravel, fine to medium sand, silt [5, 75, 20]			SB-2-05		25	0.1	07:35	Begin Direct Push
							0.1	07:50	
						50			
10				SB-2-10			0.1	08:05	
	SILT with sand (ML); dark yellowish brown (10YR 4/6); dry; fine sand, more silt than clay [0, 40, 60]; non-plastic; firm								
	Silty SAND (SM); yellowish brown (10YR 5/6); dry; fine gravel, fine to medium sand, silt [10, 50, 40]; non-plastic; loose					100			
15	BOREHOLE TERMINATED TD = 15 ft bgs			SB-2-15			0.0	08:13	

CONTRACTOR Gregg Drilling
EQUIPMENT Ramset
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER B. Cozzens **REVIEWER** S. Rehan
NORTHING
EASTING
ANGLE Vertical

REMARKS

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/22/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SB-3 **SHEET** 1 **OF** 1
START DATE 7/17/2013 **ELEVATION DATA**
FINISH DATE 7/17/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 15 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER**

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete							08:35	Hand auger to 5 ft bgs
	Silty SAND (SM); dark brown (10YR 3/3); dry; fine gravel, fine to medium sand, silt [10% gravel, 60% sand, 30% fines]; non-plastic; loose; concrete chunks mixed in with soil						0.0	08:38	
	@ 3 ft color change to dark yellowish brown (10YR 4/4); fine gravel, fine sand, silt [5, 50, 45]; no more concrete fragments						0.0	08:41	
5				SB-3-05 SB-3-05-DUP		40	0.1	08:47	Begin Direct Push
	Silty SAND with gravel (SM); dark yellowish brown (10YR 4/6); dry; fine to coarse gravel, fine to coarse sand, silt [20, 50, 30]						0.2	09:10	
				SB-3-10		70	0.0	09:18	
10	Silty SAND (SM); yellowish brown (10YR 5/6); dry; fine gravel, fine to medium sand, silt [10, 60, 30]; non-plastic; loose								
				SB-3-15		100	0.0	09:25	
15	BOREHOLE TERMINATED TD = 15 ft bgs								

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 2"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/22/13

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-1 **SHEET** 1 **OF** 5
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/24/3013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 140 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 125.5 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	No sample								07:58	Hand auger to 5 ft bgs
	Poorly Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine sand and gravel, silt [5% gravel, 90% sand, 5% fines]; non-plastic; loose							2.4		
				SBG-1-005		80	4 5 8	1.2	08:20	
5	@ 5 ft color changes to brown (10YR 4/3); fine to medium sand									Begin drilling at 08:16
				SBG-1-010		100	6 6 9	1.0	08:31	
10	Silty SAND (SM); yellowish brown (10YR 5/6); dry; fine sand and gravel, silt [5, 70, 25]; non-plastic; loose									
						100	8 9 13	1.7	08:43	
15	@ 15 ft fine to coarse gravel [10, 70, 20]									
				SBG-1-020		100	7 10 10	2.2	09:12	
20	@ 20 ft fine sand and gravel [5, 75, 20]									
						100	12 16 18	2.9	09:23	
25	Silty SAND with gravel (SM); dark yellowish brown (10YR 3/4); dry; fine to coarse gravel, fine to medium sand, silt [20, 65, 15]; non-plastic; medium dense									
				SBG-1-030		100	10 10	6.2	09:31	
30										

CONTRACTOR Gregg Drilling **NORTHING** 1946463.340
EQUIPMENT Marl M-11 **EASTING** 583326.860
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-1-GW taken at 11:16 on 6/24/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-1 **SHEET** 2 **OF** 5
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/24/3013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 140 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 125.5 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Silty SAND (SM); dark yellowish brown (10YR 4/6); dry; fine gravel, fine to medium sand, silt [5, 60, 35]; non-plastic; medium dense						15			
						100	9 11 15	4.3	09:42	
35	@ 35 ft color changes to yellowish brown (10YR 5/6); increasing gravel, more silt than clay [10, 60, 30]; low plasticity									
				SBG-1-040		100	15 16 22	4.5	09:53	
40	@ 40 ft decreasing gravel and silt, more silt than clay [5, 75, 20]									
45										
						60	19 27 40	6.3	10:07	
50	Well Graded SAND with gravel (SW); dark yellowish brown (10YR 4/4); dry; fine to coarse gravel and sand, silt [35, 60, 5]; non-plastic; medium dense									
55										
				SBG-1-060		100	50 50	6.2	10:31	
60										

CONTRACTOR Gregg Drilling **NORTHING** 1946463.340
EQUIPMENT Marl M-11 **EASTING** 583326.860
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-1-GW taken at 11:16 on 6/24/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-1 **SHEET** 3 **OF** 5
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/24/3013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 140 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 125.5 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	@ 60 ft color changes to yellowish brown (10YR 5/6); dense									
65										
						80	50 50	6.4	10:45	
70	@ 70 ft increased gravel, no fines [40, 60, 0]									
	@ 71-74 ft driller reports a gravel layer									
75										
						100	38 50	6.3	11:04	
80	@ 80 ft moist; increased silt [35, 60, 5]									
85										
				SBG-1-090		100	11 15	5.8	11:20	
90										

CONTRACTOR Gregg Drilling **NORTHING** 1946463.340
EQUIPMENT Marl M-11 **EASTING** 583326.860
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-1-GW taken at 11:16 on 6/24/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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BOREHOLE RECORD

BORING SBG-1 **SHEET** 4 **OF** 5
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/24/3013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 140 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 125.5 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Silty SAND (SM); dark yellowish brown (10YR 4/6); moist; fine gravel, fine to medium sand, silt [10, 70, 20]; non-plastic; medium dense						20			
95										
						70	50 50	6.5		
100	Well-Graded SAND with gravel (SW); yellowish brown (10YR 5/6); moist; fine to coarse gravel and sand, silt [35, 60, 5]; non-plastic; dense									
105										
				SBG-1-110		100	11 15 22	4.2	12:52	
110	Silty SAND (SM); yellowish brown (10YR 5/6); moist; fine gravel and sand, more silt than clay [5, 55, 40]; low plasticity; medium dense									
115										
	@ 120 ft color changes to strong brown (7.5YR 5/6); fine to medium sand [5, 65, 30]; iron staining			SBG-1-120		100	7 12	5.1	13:11	
120										

CONTRACTOR Gregg Drilling **NORTHING** 1946463.340
EQUIPMENT Marl M-11 **EASTING** 583326.860
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-1-GW taken at 11:16 on 6/24/2013

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BOREHOLE RECORD

BORING SBG-1 **SHEET** 5 **OF** 5
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/24/3013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 140 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 125.5 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
							14			End of day at 120.5 ft on 6/21/2013; Beginning of day at 120.5 ft on 6/24/2013
	No soil samples below 120.5 ft bgs due to broken hammer sampler cable. Boring advanced to 140 ft bgs.									
125	@ 125.5 ft groundwater in well screen		▼							
130										
135										
140	BOREHOLE TERMINATED TD = 140 ft bgs									
145										
150										

CONTRACTOR Gregg Drilling
EQUIPMENT Marl M-11
DRILL MTHD Hollow-Stem Auger
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

NORTHING 1946463.340
EASTING 583326.860
ANGLE Vertical

REMARKS Water sample SBG-1-GW taken at 11:16 on 6/24/2013

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-2 **SHEET** 1 **OF** 5
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Asphalt								14:00	Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 3/6); moist; fine to coarse gravel, fine sand, silt [10% gravel, 60% sand, 30% fines]; non-plastic; very loose							2.5	14:04	
5	@ 4 ft color changes to dark yellowish brown (10YR 4/6); fine to medium sand								14:14	Begin drilling at 5 ft bgs; log cuttings to 35 ft bgs
10	@ 10 ft fine to coarse sand [10, 70, 20]							2.6	14:35	
15	@ 15 ft fine sand, fine gravel [10, 60, 30]							3.8	14:39	
20	Silty SAND with gravel (SM); dark yellowish brown (10YR 4/6); moist; fine to coarse gravel, fine to medium sand, silt [15, 60, 25]; non-plastic; very loose							5.6	14:43	
25	@ 25 ft fine to coarse sand, more silt than clay [25, 50, 25]; low plasticity; loose							7.1	14:51	
30										

CONTRACTOR Gregg Drilling
EQUIPMENT Marl M-11
DRILL MTHD Hollow-Stem Auger
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

NORTHING 1946557.070
EASTING 583323.770
ANGLE Vertical

REMARKS Water sample SBG-2-GW and DUP-SBG-2-GW taken at 11:24 on 6/25/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-2 **SHEET** 2 **OF** 5
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	@ 30 ft color changes to dark yellowish brown (10YR 3/6); fine gravel, fine to medium sand, silt with trace clay [25, 40, 35]							6.5	14:57	
35	@ 34 ft color changes to yellowish brown (10YR 5/8); fine to coarse gravel, fine to medium sand, silt [20, 60, 20]; non-plastic; medium dense				X	85	13 20 30	3.9	15:09	
40	Well-Graded SAND with silt and gravel (SW-SM); yellowish brown (10YR 5/6); moist; fine to coarse gravel, fine to coarse sand, silt [30, 60, 10]; non-plastic; medium dense				X	90	13 18 22	5.7	15:17	
45	Well-Graded SAND with gravel (SW); dark yellowish brown (10YR 4/6); moist; fine to coarse gravel, fine to coarse sand, silt [35, 60, 5]; non-plastic; dense				X	60	32 50	2.6	15:33	
50					X	80	38 50	4.6	15:42	
55	Silty SAND (SM); yellowish brown (10YR 5/6); moist; fine to coarse gravel, fine sand, silt [10, 60, 30]; non-plastic; medium dense									
60				SBG-2-60	X	70	12 13	4.5	16:23	

CONTRACTOR Gregg Drilling **NORTHING** 1946557.070
EQUIPMENT Marl M-11 **EASTING** 583323.770
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-2-GW and DUP-SBG-2-GW taken at 11:24 on 6/25/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-2 **SHEET** 3 **OF** 5
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
							38			
65										End of day on 6/24, resumed drilling at beginning of day on 6/25
70	@ 69 ft color changes to yellowish brown (10YR 5/8); fine gravel, fine sand, more silt than clay [5, 55, 40]; low plasticity; calcareous inclusions (approximately 10% by volume)			SBG-2-70 SBG-2-70-DUP		100	18 25 35	1.0	07:54	
75										
80	Well-Graded SAND with silt and gravel (SW-SM); light yellowish brown (10YR 6/4); fine to coarse gravel, fine to coarse sand, silt [15, 75, 10]; non-plastic; dense					70	30 36 50	0.7	08:18	
85										
90	@ 89 ft color changes to yellowish brown (10YR 5/6)					90	45 50	2.2	08:37	

CONTRACTOR Gregg Drilling **NORTHING** 1946557.070
EQUIPMENT Marl M-11 **EASTING** 583323.770
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-2-GW and DUP-SBG-2-GW taken at 11:24 on 6/25/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HSA_KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/29/13

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BOREHOLE RECORD

BORING SBG-2 **SHEET** 4 **OF** 5
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
95										
100	Silty SAND with gravel (SM); yellowish brown (10YR 5/6); moist; fine to coarse gravel, fine to coarse sand, silt [25, 60, 15]; non-plastic; dense			SBG-2-100		90	22 30 50	5.6	09:10	
105										
110	Sandy SILT (ML); yellowish brown (10YR 5/6); moist; fine sand, silt, trace clay [0, 40, 60]; low plasticity; medium dense			SBG-2-110		100	10 14 19	3.7	09:56	
115										
120			▼			70	24 50	3.6	10:17	@ 119 ft first encounter GW on hammer

CONTRACTOR Gregg Drilling **NORTHING** 1946557.070
EQUIPMENT Marl M-11 **EASTING** 583323.770
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Water sample SBG-2-GW and DUP-SBG-2-GW taken at 11:24 on 6/25/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HSA KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/29/13

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BOREHOLE RECORD

BORING SBG-2 **SHEET** 5 **OF** 5
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Well-Graded SAND with gravel (SW); yellowish brown (10YR 5/6); wet; fine to coarse gravel, medium to coarse sand [25, 75, 0]; non-plastic; dense		▽		⊠					GW depth 122.6 ft bgs in well screen
125	BOREHOLE TERMINATED TD = 125 ft bgs								10:22	
130										
135										
140										
145										
150										

CONTRACTOR Gregg Drilling
EQUIPMENT Marl M-11
DRILL MTHD Hollow-Stem Auger
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

NORTHING 1946557.070
EASTING 583323.770
ANGLE Vertical

REMARKS Water sample SBG-2-GW and DUP-SBG-2-GW taken at 11:24 on 6/25/2013

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HSA KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/29/13

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BOREHOLE RECORD

BORING SBG-3 **SHEET** 1 **OF** 5
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Asphalt								08:30	Hand auger to 5 ft bgs
	Well-Graded SAND (SW); dark yellowish brown (10YR 4/6); moist; fine to coarse sand and gravel [10% gravel, 85% sand, 5% fines]; non-plastic; loose							0.0		
5									09:00	Begin drilling at 09:00
10										
15										
20										
25										
30										

CONTRACTOR Gregg Drilling **NORTHING** 1946503.970
EQUIPMENT Marl M-11 **EASTING** 583070.780
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Located in rear alleyway.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HSA KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/29/13

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-3 **SHEET** 2 **OF** 5
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
	Silty SAND with clay (SM); dark yellowish brown (10YR 4/4); moist; fine to coarse sand [10, 50, 40]; low plasticity; medium dense									
35										
40										
45	@ 45 ft fine to medium sand									
50	@ 49 ft color changes to yellowish brown (10YR 5/6); fine to coarse sand [5, 60, 35]				X	100	6 10 11	0.0	09:46	
55										
60	Well-Graded SAND with silt and gravel (SW-SM); non-plastic; medium dense				X	70	10 14	0.1	10:07	

CONTRACTOR Gregg Drilling **NORTHING** 1946503.970
EQUIPMENT Marl M-11 **EASTING** 583070.780
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Located in rear alleyway.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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BOREHOLE RECORD

BORING SBG-3 **SHEET** 3 **OF** 5
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
							29			
65										
70	Well-Graded SAND with gravel (SW); yellowish brown (10YR 5/6); moist; medium to coarse sand [30, 70, 0]; non-plastic; very dense					70	50 50	0.4	10:26	PID samples taken with ziploc-style bags that read up to 0.8 ppm when empty
75										
80	Silty SAND with gravel (SM); dark yellowish brown (10YR 4/6); moist; fine to coarse sand [15, 50, 35]; non-plastic; very dense			SBG-3-080		75	50 50	0.6	10:50	
85	@ 85-88 ft driller reports increased gravel									
90	Silty SAND (SM); yellowish brown (10YR 5/6); moist; fine to coarse sand [5, 50, 45]; low plasticity; medium dense					100	8 8	1.4	11:08	

CONTRACTOR Gregg Drilling **NORTHING** 1946503.970
EQUIPMENT Marl M-11 **EASTING** 583070.780
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Located in rear alleyway.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HSA_KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/29/13

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-3 **SHEET** 4 **OF** 5
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 125.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
							14			
95										
	Sandy SILT with clay (ML); dark yellowish brown (10YR 4/6); moist; fine sand [0, 30, 70]; medium plasticity; medium dense; firm			SBG-3-100		100	12 14 22	6.4	11:30	
100										
105										
	Silty SAND (SM); yellowish brown (10YR 5/6); moist; fine to coarse sand [10, 70, 20]; non-plastic; medium dense					80	12 19 35	0.2	11:46	
110										
115										
	Silty SAND with clay (SM); wet; fine to coarse sand [5, 55, 40]; low plasticity; medium dense		▼	SBG-3-120		100	8 12	3.9	12:56	First encountered groundwater at 119 ft bgs; hammer came out wet
120										

CONTRACTOR Gregg Drilling **NORTHING** 1946503.970
EQUIPMENT Marl M-11 **EASTING** 583070.780
DRILL MTHD Hollow-Stem Auger **ANGLE** Vertical
DIAMETER 8"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Located in rear alleyway.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE 1/99

BOREHOLE RECORD

BORING SBG-3 **SHEET** 5 **OF** 5
START DATE 6/20/2013
FINISH DATE 6/20/2013
LOCATION Chatsworth, CA
PROJECT KP Chatsworth
PROJECT NUMBER WR1767/02
ELEVATION DATA
GROUND SURFACE
DATUM
TOTAL DEPTH 125.5 ft
DEPTH TO WATER 119 ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	BLOW COUNTS	PID READING (ppm)	TIME	COMMENTS
			▽				19			Groundwater recharged to 122.5 ft bgs in well screen
125	Well-Graded SAND (SW); dark yellowish brown (10YR 5/6); wet; fine to coarse sand [5, 90, 5]; non-plastic; loose			SBG-3-125		60	7 8 11	3.5	13:08	
	BOREHOLE TERMINATED TD = 125.5 ft bgs									
130										
135										
140										
145										
150										

CONTRACTOR Gregg Drilling
EQUIPMENT Marl M-11
DRILL MTHD Hollow-Stem Auger
DIAMETER 8"
LOGGER B. Cozzens
REVIEWER S. Rehan
NORTHING 1946503.970
EASTING 583070.780
ANGLE Vertical

REMARKS Located in rear alleyway.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-01 **SHEET** 1 **OF** 2
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND (SP); dry; fine sand, silt [0% gravel, 95% sand, 5% fines]; very loose							09:25	Hand auger to 5 ft bgs; logged from cuttings. Asphalt surface.
	@ 2 ft medium gravel [5, 90, 5]						0.0		
	@ 4 ft increasing sand [5, 95, 0]						0.0		
5						50		09:35 10:20	Begin Direct Push (Then after sampler tip shears off, begin DP again at 10:20)
						60			
10				SBV-01-12				10:30	
						75			SS Sampler tip sheared off at 13'. Stepped over ~2' to redrill starting at 9'. Rest of log is from replacement site. Grades into SP-SM, looks same as rest of sleeve.
	6" SANDSTONE layer; friable								
15	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4) dry; fine sand, trace silt [0, 100, tr]; non-plastic; very dense						2.9		
						75			
	@ 18 ft increasing silt [0, 95, 5]; medium dense								
20	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 4/4); moist; fine gravel and sand [5, 85, 10]; non-plastic; medium dense; no odor			SBV-01-20			0.9	10:40	

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946544.160
EASTING 583324.080
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-01 **SHEET** 2 **OF** 2
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	Sample ID	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Well-Graded SAND with gravel (SW); dark yellowish brown (10YR 4/4); dry; fine to medium gravel and sand, trace fines [15, 85, tr]; angular gravel		75			1" sections of indurated siltstone/clay. Orange mottling.
25			75			
				0.0		
	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 5/6); dry; fine sand, silt [0, 90, 10]; non-plastic; dense		50	0.1		
30	Poorly-Graded SAND (SP); brown (7.5Y 4/4); dry; medium gravel and sand [5, 95, 0]; very dense; subangular gravel; no odor	SBV-01-31			11:10	Used sample in plastic Ziploc for PID reading. Empty Ziploc = 2.5 ppm
	@ 31.5 ft color changes to dark yellowish brown (10YR 4/6); increasing fines, fine to medium sand, silt [5, 90, 5]; dense					Strong brown mottling
	2" CLAYSTONE layer					
	Poorly-Graded SAND (SP); dark yellowish brown (10YR 4/6); dry; fine gravel; fine to medium sand, silt [5, 90, 5]; dense		75			
	2" SANDSTONE layer; dark brown (10YR 3/3); fine to medium gravel, fine sand, more silt than clay [20, 60, 20]; non-plastic; very hard; angular gravel					
35	Well-Graded SAND (SW); yellowish brown (10YR 5/4); dry; fine to medium gravel, fine to coarse sand [10, 90, 0]; loose					
	1" hard CLAYSTONE layer					
	Well-Graded SAND (SW); same as at 34 ft					
	Poorly-Graded SAND with silt (SP-SM); light yellowish brown (10YR 6/4); dry; fine sand, silt [0, 90, 10]; non-plastic; medium dense		100			
	Well-Graded SAND (SW); same as at 34 ft					
	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine gravel, fine to medium sand, silt [5, 90, 5]; loose	SBV-01-38			11:40	
	Well-Graded SAND with gravel (SW); yellowish brown (10YR 5/4); dry; fine to medium gravel, fine to coarse sand [20, 80, 0]; loose					
40	1" CLAYSTONE layer					
	Well-Graded SAND with gravel (SW); same as at 38 ft					
	BOREHOLE TERMINATED TD = 40 ft bgs Vapor probe installed from 5.0-5.5 ft bgs in adjacent co-located boring					

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946544.160
EASTING 583324.080
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-02 **SHEET** 1 **OF** 2
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 30 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 5/4); dry; fine to coarse gravel, fine sand, silt [5, 85, 10]; very loose						0.0	13:40	Hand auger to 5 ft bgs. Log from cuttings. Angular rock fragments.
5				SBV-02-05		40	0.0	14:10	Begin Direct Push
	Silty SAND (SM); brown (10YR 4/3); dry; fine sand, more silt than clay [0, 80, 20]; low plasticity; medium density			SBV-02-09		50		14:20	
10	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 5/4); dry; fine sand, silt [0, 90, 10]; very dense; very stiff					80			Compacted but not cemented. Crumbles easily but hard when in cone barrel.
15	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine sand, trace silt [0, 100, tr]; dense					100			Friable, breaks off in layers
20	@ 20 ft coarser, fine to medium sand			SBV-02-20				14:35	

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946545.360
EASTING 583312.300
ANGLE Vertical

REMARKS Location behind auto repair shop immediately adjacent to hazmat storage: drummed diesel-soaked rags, etc. Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-02 **SHEET** 2 **OF** 2
START DATE 6/24/2013
FINISH DATE 6/24/2013
LOCATION Chatsworth, CA
PROJECT KP Chatsworth
PROJECT NUMBER WR1767/02
ELEVATION DATA
GROUND SURFACE
DATUM
TOTAL DEPTH 30 ft
DEPTH TO WATER ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 3/6); dry; fine to medium gravel and sand, silt [5, 90, 5]; dense; stiff					50			
	Rock fragments from 22'-25'								
25						80			
	Well-Graded SAND with gravel (SW); yellowish brown (10YR 5/4); dry; fine to coarse gravel, fine to medium sand [30, 70, 0]; very dense; very hard						0.0		Entire interval contains < 1" layers of hard conglomerate and sandstone. Angular rock fragments. Hard layers often friable, or cannot be broken at all. Orange mottling.
	2" CONGLOMERATE layer					100	0.0		
	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 6/6); dry; fine sand [0, 90, 10]; dense; very stiff			SBV-02-30				14:55	
30	BOREHOLE TERMINATED TD = 30 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
35									
40									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946545.360
EASTING 583312.300
ANGLE Vertical

REMARKS Location behind auto repair shop immediately adjacent to hazmat storage: drummed diesel-soaked rags, etc. Installation of vapor probe.

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-03 **SHEET** 1 **OF** 2
START DATE 6/25/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 30 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND (SP); dark yellowish brown (10YR 3/4); moist; fine gravel and sand, silt [5, 90, 5]; low plasticity			SBV-03-02			0.0		Hand auger to 5 ft bgs. Lithology logged from cuttings.
	Poorly-Graded SAND with gravel (SP); brown (10YR 4/3); dry; fine to coarse gravel, fine sand, silt [20, 75, 5]; rounded cobbles			SBV-03-05			0.0		
5						50			Begin Direct Push
	Poorly-Graded SAND (SP); brown (10YR 4/3); dry; trace fine gravel, fine sand [tr, 100, 0]; medium dense						0.0		
				SBV-03-09				13:35	
10						60			
	@ 11 ft color changes to dark yellowish brown (10YR 4/4); fine to medium sand [5, 90, 5]						0.0		
	@ About 11 ft cobbles and angular rock fragments up to 2" in diameter								
	@ 12 ft more cemented/compacted					50			
15	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 4/4); dry; fine sand [0, 90, 10]; medium dense						0.0		
	Silty SAND (SM); dark yellowish brown (10YR 4/4); dry; very fine sand, silt [0, 70, 20]; stiff								Friable along horizontal planes
	@ 16.5 ft trace angular gravel					80			
	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 5/4); moist; fine sand [0, 90, 10]; medium dense; stiff; cobbles						0.0		
	@ 18.5 ft cobbles								
	@ 19 ft cobbles								
20	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine sand [0, 95, 5]; dense; very stiff			SBV-03-20			0.0	13:45	

CONTRACTOR Gregg Drilling **NORTHING** 1946552.240
EQUIPMENT Marl-2.5T **EASTING** 583304.140
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-03 **SHEET** 2 **OF** 2
START DATE 6/25/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 30 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
25	Silty SAND (SM); brown (7.5YR 4/4); dry; fine gravel and sand, silt [5, 70, 25]; very dense; hard					30			Massive (no layering); 1% red (strong brown) mottling
						80	0.0		
	Poorly-Graded SAND with silt and gravel (SP-SM); dark yellowish brown (10YR 4/4); moist; fine to coarse gravel, fine sand [20, 70, 10]; loose; angular gravel						0.0		
	1" layer of Fat CLAY (CH): moist, [0, 30, 70]; very high plasticity								
	Poorly-Graded SAND with silt and gravel (SP-SM); same as at 27 ft					100			
30	@ 28.5 ft cobble			SBV-03-30			0.0	14:00	
	Well-Graded SAND with gravel (SW); dark yellowish brown (10YR 4/4); dry; fine to coarse gravel, fine to coarse sand [30, 70, 0]; loose								
	Silty SAND (SM); dark yellowish brown (10YR 4/4); dry; trace fine gravel, fine sand, silt [tr, 70, 30]; dense; very stiff; caliche layers and fingers								
	BOREHOLE TERMINATED TD = 30 ft bgs								
35									
40									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946552.240
EASTING 583304.140
ANGLE Vertical

REMARKS

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-04 **SHEET** 1 **OF** 2
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND with silt (SP-SM); dark brown (10YR 3/3); fine sand, silt [0, 90, 10]; loose; no odor							15:00 on 6/21 09:30 on 6/25	Hand auger to 6 ft bgs. Installed SV Probe at 5.0-5.5', then stepped over for 40' soil boring.
	Silty SAND (SM); brown (10YR 4/3); moist; fine sand, silt [0, 85, 15]; loose								
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; medium gravel, fine sand, silt [10, 80, 10]; loose								
5				SBV-04-05				09:45	
	Silty SAND (SM); brown (10YR 4/3); dry; fine sand, [0, 85, 15]; loose					50			Begin Direct Push
	Poorly-Graded SAND (SP); brown (10YR 4/3); moist; fine sand, silt [0, 95, 5]								Stop 6/21 at 1520. Reach 6 ft bgs in adjacent probe at 0945 on 6/25. BG PID = 0.2 - 0.6 ppm
				SBV-04-09			0.0	11:15	
						60			
10							0.0		
	@ 11 ft fine to medium sand								
						75			
							0.0		
15									
	@ 16.5 ft fine sand						0.0		
						75			
	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 5/4); fine sand, silt and clay [0, 90, 10]; dense; stiff; rounded cobble at top of layer								
	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); fine to medium grained sand, silt [0, 95, 5]; dense; stiff								
20				SBV-04-20				12:05	
	@ 20 ft color changes to brown (7.5YR 4/4); fine to medium gravel, fine sand, silt [5, 90, 5]; very dense; hard								Angular pebbles/gravel. 1% red mottling.

CONTRACTOR Gregg Drilling **NORTHING** 1946563.870
EQUIPMENT Marl-2.5T **EASTING** 583309.320
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS Used hand auger for 6 ft bgs and installed vapor probe, then stepped over for 40 ft soil boring.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-04 **SHEET** 2 **OF** 2
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
25	@ 25 ft cobble					30	0.0		
	@ 27 ft moist; trace fine to medium gravel, fine to medium sand, silt [tr, 90, 10]; dense; very stiff								
	@ 28 ft cobble						0.0		
				SBV-04-29		25		12:20	@ 29-33 ft Liner damaged, driller indicates very hard material (sampler tip would not come off barrel easily)
30	@ 31 ft increased gravel [15, 75, 10]								
	@ 34 ft very dense					80			
35	@ 35 ft color changes to dark yellowish brown (10YR 5/6); fine sand, silt [0, 95, 5]; medium dense								
				SBV-04-37				12:35	
	No recovery					0			Sampler tip stuck in shoe
40	BOREHOLE TERMINATED TD = 40 ft bgs Vapor probe installed from 5.0-5.5 ft bgs in adjacent co-located boring								

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946563.870
EASTING 583309.320
ANGLE Vertical

REMARKS Used hand auger for 6 ft bgs and installed vapor probe, then stepped over for 40 ft soil boring.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-05 **SHEET** 1 **OF** 2
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 30 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Silty SAND (SM); brown (10YR 4/3); moist; trace medium gravel, fine to coarse sand, silt [tr, 70, 30]							15:45	Hand auger to 5 ft bgs. Asphalt surface. Cuttings in clumps.
	Lean CLAY (CL); very dark grayish brown (10YR 3/2); dry; fine sand [0, 5, 95]; medium plasticity; very stiff; no odor			SBV-05-02				16:30	Diesel fumes from 2 rigs
	@ 3 ft color changes to dark brown (10YR 3/3); clay and sand [0, 10, 90]; stiff								
5				SBV-05-05		60		16:40	Direct Push from 5-15.5 ft
	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 4/4); dry; fine sand [0, 90, 10]; loose			SBV-05-09		50	0.1	16:50	
10	@ 11 ft subrounded medium to coarse gravel [5, 85, 10]; dense; very stiff					100	0.0		
	Poorly-Graded SAND (SP); dark yellowish brown (10YR 4/4); moist; fine sand, silt [0, 95, 5]; dense; very stiff but once core breached, crumbles easily						0.0		
15						30		08:45 on 6/25	Install SVP at 5.0-5.5 ft and 14.5-15.5 ft on 6/24. Begin Direct Push again on 6/25 from 15.5-30 ft.
	@ 18 ft color changes to yellowish brown (10YR 5/4); [0, 100, 0]; medium dense						0.0		
	Fat CLAY (CH); dark yellowish brown (10YR 4/4); trace fine sand, clay [0, tr, 100]; high plasticity; very soft; no odor or discoloration			SBV-05-19 SBV-05-19-DUP		40	0.0	08:55 09:00	
20									

CONTRACTOR Gregg Drilling **NORTHING** 1946563.470
EQUIPMENT Marl-2.5T **EASTING** 583324.310
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-05 **SHEET** 2 **OF** 2
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 30 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	SILT (ML); brown (7.5YR 4/3); fine gravel and sand, more silt than clay [5, 5, 90]; low plasticity; very stiff								
	10" SANDSTONE layer; yellowish brown (10YR 5/6); [5, 95, 0]; very hard; crumbles with strong pressure, breaks into layers					80			
	Well-Graded SAND with gravel (SW); strong brown (7.5YR 4/6); dry; fine gravel, fine to coarse sand, silt [20, 75, 5]; medium dense; strong brown (rust colored) mottling						0.0		
25	Silty SAND (SM); brown (7.5YR 4/3); dry; fine sand, more silt than clay [0, 60, 40]; medium plasticity; dense; very stiff; occasional cobbles						0.0		
						75			
	@ 28.5 ft fine gravel [5, 70, 25]								
	Silty SAND with gravel (SM); brown (7.5YR 4/3); dry; fine to coarse gravel, fine sand, more silt than clay [30, 50, 20]; very dense; hard; angular gravel; strong brown to red mottling (1%)			SBV-05-29			0.0	09:30	
30	BOREHOLE TERMINATED Total Depth = 30 ft bgs Backfill Vapor probes installed from 5.0-5.5 and 14.5-15.0 ft bgs in adjacent co-located boring								
35									
40									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946563.470
EASTING 583324.310
ANGLE Vertical

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-06 **SHEET** 1 **OF** 2
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/21/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Silty SAND (SM); brown (10YR 4/3); fine sand, more silt than clay [0, 70, 30]; low plasticity; no odor								Hand auger to 5 ft bgs. Log from cuttings.
	@ 2 ft increasing gravel [5, 70, 25]; subrounded cobbles								
				SBV-06-05			1.9	10:30	
5	Well-Graded SAND (SW); dark yellowish brown (10YR 4/4); moist; fine to coarse gravel, medium to coarse sand, silt [5, 90, 5]; loose; subangular cobbles					50			Begin Direct Push
	@ 8 ft color changes to pale brown (10YR 6/3); medium gravel, no fines [5, 95, 0]					25			
10									
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; medium trace gravel, fine sand, silt [tr, 90, 10]; dense; stiff			SBV-06-12			1.3	10:45	
						75			
15	Well-Graded SAND with gravel (SW); light yellowish brown (10YR 6/4); moist; coarse gravel, medium to coarse sand [20, 80, 0]; loose								
						50			
	4" SANDSTONE layer; angular shards; very hard; slight odor (unidentified)						1.0		Sandstone layer 4" but only 50% recovery
20	Well-Graded SAND (SW); light yellowish brown (10YR 6/4); fine gravel, medium to coarse sand [5, 95, 0]; loose			SBV-06-21			1.4	11:15	

CONTRACTOR Gregg Drilling **NORTHING** 1946507.140
EQUIPMENT Marl-2.5T **EASTING** 583061.550
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS Installation of vapor probes. Temporary completion.

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-06 **SHEET** 2 **OF** 2
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/21/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Fat CLAY (CH); brown (10YR 5/3); fine sand, more clay than silt [0, 10, 90]; high plasticity; stiff					50			
	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine sand, silt [0, 95, 5]; medium dense; stiff								
25						50			
	Fat CLAY with sand (CH); yellowish brown (10YR 5/4); moist; fine sand, more clay than silt [0, 20, 80]; high plasticity; stiff						0.7		Grades into fat clay
	@ 27-29 ft decreasing sand								
				SBV-06-29			0.6	11:45	
	Fat CLAY (CH); yellowish brown (10YR 5/4); moist; more clay than silt [0, 0, 100]; high plasticity; stiff					50			
30									
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); dry; trace coarse gravel, fine to medium sand, silt [tr, 90, 10]; dense; very stiff								
	Well-Graded SAND (SW); brown (10YR 5/3); dry; fine to coarse gravel, fine to coarse sand, trace silt [5, 95, tr]; dense; stiff; angular fragments of broken rounded cobble								
	Poorly-Graded SAND (SP); yellowish brown (10YR 5/4); dry; fine sand [0, 100, 0]; dense; stiff					50	1.2		33-37 ft: Sleeve did not come out of barrel: damaged. Core was extracted from barrel using percussion method (hit it until soil falls out).
35	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 4/4); dry; fine sand, silt [0, 90, 10]; very dense; hard						0.6		
						75			
	Sandy Fat CLAY (CH); brown (7.5YR 4/4); medium gravel, fine sand, clay [10, 20, 70]; medium plasticity; very dense; hard								Driller indicates that clay is very difficult to advance through. Clays smeared in inner of liner.
				SBV-06-40				12:10	
40	BOREHOLE TERMINATED Total Depth = 40 ft bgs Backfill to grade with bentonite Vapor probes installed from 5.0-5.5 and 14.5-15.0 ft bgs in adjacent co-located boring Temporary well box								

CONTRACTOR Gregg Drilling **NORTHING** 1946507.140
EQUIPMENT Marl-2.5T **EASTING** 583061.550
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS Installation of vapor probes. Temporary completion.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-07 **SHEET** 1 **OF** 2
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND (SP); brown (10YR 4/3); moist; fine to medium gravel and sand, silt [10, 85, 5]; very loose; no odor								Hand auger to 5 ft bgs
5				SBV-07-05		75	0.4	14:20	Begin Direct Push
	Well-Graded SAND (SW); yellowish brown (10YR 5/4); moist; fine to coarse gravel and sand [5, 95, 0]; very loose; coarse angular rock fragments up to 0.75"					75			
10	@ 10 ft color changes to pale brown (10YR 6/3); dry; fine to medium gravel, medium to coarse sand [10, 90, 0]								
	Silty SAND (SM); yellowish brown (10YR 4/4); moist; fine sand, more silt than clay [0, 60, 40]; low plasticity; very stiff			SBV-07-11		60	0.7	14:30	
15	Poorly-Graded SAND (SP); pale brown (10YR 6/3); dry; fine to medium sand [0, 100, 0]; very loose								
	@ 15 ft fine to coarse gravel [10, 90, 0]								
	Silty SAND (SM); yellowish brown (10YR 5/4); moist; fine sand, silt [0, 85, 15]; medium dense								
	Well-Graded SAND (SW); yellowish brown (10YR 5/4); moist; fine gravel, fine to coarse sand [5, 95, 0]					60			
	Well-Graded SAND with gravel (SW); brown (10YR 5/3); dry; fine to coarse gravel, medium to coarse sand [40, 60, 0]; loose; rounded gravel and rock fragments in angular halves								
20	Silty SAND (SM); yellowish brown (10YR 5/4); moist; fine sand, silt [0, 85, 15]; medium dense; stiff			SBV-07-21			1.0	14:55	

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946541.850
EASTING 583065.330
ANGLE Vertical

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SBV-07 **SHEET** 2 **OF** 2
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 40 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Sandy SILT (ML); yellowish brown (10YR 5/4); moist; fine sand, more silt than clay [0, 40, 60]; dense; very stiff					60			
	@ 22 ft cobble								
	Silty SAND (SM); brown (10YR 5/3); dry; very fine sand, more silt than clay [0, 70, 30]								
25						30	0.0		
	@ 28 ft cobble								
	Sandy SILT (ML); yellowish brown (10YR 5/4); dry; fine sand [0, 40, 60]; non-plastic; dense; hard					40			
30				SBV-07-30			0.7	15:05	
	@ 31 ft cobble								
	Silty SAND (SM); yellowish brown (10YR 5/4); dry; fine sand, silt [0, 60, 40]; dense; stiff						1.6		
						50			
35	4" conglomeritic SANDSTONE layer; dry; fine to medium gravel, fine to coarse sand, silt [20, 70, 10]; very dense; hard								
	Sandy SILT (ML); yellowish brown (10YR 5/4); moist; fine sand, more silt than clay [0, 40, 60]; dense; stiff						1.1		
	No recovery. Sample taken from shoe.					0			
				SBV-07-40			1.8	15:10	
40	BOREHOLE TERMINATED Total Depth = 40 ft bgs Backfill to grade with bentonite chips and hydrate Vapor probes installed from 5.0-5.5 and 14.5-15.0 ft bgs in adjacent co-located boring (3 ft away)								

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946541.850
EASTING 583065.330
ANGLE Vertical

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-01 **SHEET** 1 **OF** 1
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/21/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND with silt (SP-SM); dark yellowish brown (10YR 4/4); moist; fine gravel and sand, silt [10, 80, 10]; non-plastic; very loose								Hand auger to 5 ft bgs
	@ 2 ft color changes to yellowish brown (10YR 5/4); decreasing gravel [5, 85, 10]			SV-01-02			1.2	15:26	
5	@ 5 ft fine to coarse gravel, fine to medium sand			SV-01-05			2.3	15:32	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946489.350
EASTING 583312.640
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-02 **SHEET** 1 **OF** 1
START DATE 6/25/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	No sample							14:05	Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 4/6); moist; fine to coarse gravel, fine to medium sand, silt [10, 60, 30]; non-plastic; very loose			SV-02-02			6.0	14:09	
5	@ 5 ft fine gravel [5, 65, 30]			SV-02-05			6.2	14:17	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER B. Cozzens **REVIEWER** S. Rehan

NORTHING 1946492.590
EASTING 583256.670
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-03 **SHEET** 1 **OF** 1
START DATE 6/25/2013 **ELEVATION DATA**
FINISH DATE 6/25/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	No sample							14:25	Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 3/6); moist; fine to coarse gravel, fine to coarse sand, silt [10, 65, 25]; non-plastic; very loose			SV-03-02			2.0	14:32	
5	@ 5 ft color changes to dark yellowish brown (10YR 4/6); fine gravel [5, 70, 25]			SV-03-05			3.0	14:40	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER B. Cozzens **REVIEWER** S. Rehan

NORTHING 1946529.060
EASTING 583262.210
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-04 **SHEET** 1 **OF** 1
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Asphalt surface								Hand auger to 5 ft bgs; lithology logged from cuttings
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; fine sand, more silt than clay [0, 90, 10]; low plasticity; loose			SV-04-02			2.2	08:15	
5	Silty SAND (SM); brown (10YR 5/3); moist; fine sand, silt [0, 85, 15]; low plasticity; loose			SV-04-05			1.3	08:25	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946575.380
EASTING 583263.650
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-05 **SHEET** 1 **OF** 1
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	No sample								Hand auger to 5 ft bgs; lithology logged from cuttings. PID BG = 0.2; PID Ziploc = 0.4
	Poorly-Graded SAND (SP); dark yellowish brown (10YR 4/4); dry; fine sand, silt [0, 95, 5]; very loose			SV-05-02			0.7	07:30	
	Silty SAND (SM); dark yellowish brown (10YR 3/4); moist; trace gravel, fine sand, silt [tr, 85, 15]; low plasticity; loose @ 4 ft increased gravel, medium to coarse sand [5, 80, 15]; rounded gravel								
5				SV-05-05			0.8	07:40	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946577.540
EASTING 583172.090
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-06 **SHEET** 1 **OF** 1
START DATE 6/24/2013 **ELEVATION DATA**
FINISH DATE 6/24/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND (SP); brown (10YR 4/3); moist; fine to coarse gravel and sand [10, 90, 0]; loose; cobbles							07:00	Hand auger to 5 ft bgs; lithology logged from cuttings
	@ 2 ft color changes to brown (10YR 5/3); medium to coarse gravel and sand [5, 95, 0]; rounded gravel			SV-06-02				07:35	
	Well-Graded SAND (SW); brown (10YR 5/3); moist; medium to coarse gravel, fine to coarse sand [10, 90, 0]; cobbles and rounded gravel								
5				SV-06-05				07:40	Drillers over-hand augered to 5.5 ft bgs. Installed probe at 5.5-6.0 ft bgs in 5.5-6.5 direct push interval.
	BOREHOLE TERMINATED TD = 6.5 ft bgs Vapor probe installed from 5.5-6.0 ft bgs Temporary completion (no well box)								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946465.170
EASTING 583186.430
ANGLE Vertical

REMARKS Installation of vapor probe. Temporary completion.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

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GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-07 **SHEET** 1 **OF** 1
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 15.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	No sample							08:45	Hand auger to 5 ft bgs
	Silty SAND (SM); brown (10YR 4/3); moist; fine sand, more silt than clay [0, 80, 20]; mica			SV-07-02			0.0	09:15	
5				SV-07-05		75	0.0	09:20	Begin Direct Push
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; more fine than coarse sand, silt [0, 90, 10]; rounded grains								
	Silty SAND (SM); brown (10YR 4/3); moist; fine gravel, fine sand, more silt than clay [5, 80, 15]								
	Poorly-Graded SAND (SP); light yellowish brown (10YR 6/4); dry; fine to medium gravel, medium to coarse sand [10, 90, 0]; very loose; rounded, pale gravel					60			
10									
	Poorly-Graded SAND with silt (SP-SM); light yellowish brown (10YR 6/4); moist; fine to medium sand, silt [0, 90, 10]								
	Poorly-Graded SAND (SP); brown (7.5YR 5/3); moist; fine gravel, fine to medium sand, silt [5, 90, 5]; loose					100			
	@ 14 ft color changes to brown (7.5YR 4/4)								
15				SV-07-15				10:10	
	BOREHOLE TERMINATED TD = 15.5 ft bgs Vapor probes installed from 8.0-8.5 and 14.5-15.0 ft bgs Temporary well box completion								

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946489.510
EASTING 583127.200
ANGLE Vertical

REMARKS Installation of vapor probes. Temporary completion.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-08 **SHEET** 1 **OF** 1
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 15.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Silty SAND (SM); brown (10YR 4/3); moist; fine sand, more silt than clay [0, 85, 15]						0.0	10:45	Hand auger to 5 ft bgs
				SV-08-02				11:00	
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; trace gravel, fine to medium sand, silt [tr, 90, 10]								
5				SV-08-05 SV-08-05-DUP		50		11:15 11:20	Begin Direct Push
	Poorly-Graded SAND with gravel (SP); brown (10YR 5/4); moist; fine to coarse gravel, medium to coarse sand, [40, 60, 0]; very loose; rounded to subangular gravel								
	Poorly-Graded SAND with silt (SP-SM); brown (7.5YR 4/3); moist; fine sand, silt [0, 90, 10]								
	Well-Graded SAND with gravel (SW); light yellowish brown (10YR 6/4); dry; fine to coarse gravel and sand [20, 80, 0]; very loose					100			
10	Poorly-Graded SAND with silt (SP-SM); brown (7.5YR 4/3); moist; trace gravel, fine sand, silt [tr, 90, 10]			SV-08-10				11:25	
	Poorly-Graded SAND with gravel (SP); brown (7.5YR 6/3); moist; fine to coarse gravel, medium to coarse sand [40, 60, 0]; very loose; subangular to rounded gravels; variety of colors and lithologies from quartz (white) to dark					100			
15									
	BOREHOLE TERMINATED TD = 15.5 ft bgs Vapor probes installed from 4.5-5.0 and 14.5-15.0 ft bgs								

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946490.120
EASTING 583063.260
ANGLE Vertical

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-09 **SHEET** 1 **OF** 1
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/21/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	No sample								Hand auger to 5 ft bgs; lithology logged from cuttings
	Silty SAND (SM); brown (10YR 4/3); moist; fine sand, silt [0, 80, 20]; medium dense						0.8		
							0.2		
	Well-Graded SAND with gravel (SW); brown (10YR 4/3); moist; fine to coarse gravel, fine to medium sand [20, 80, 0]; very loose; rounded cobbles up to 2" in diameter						0.3		
							0.4		
5	Well-Graded SAND (SW); pale brown (10YR 6/3); moist; fine gravel, medium to coarse sand [5, 95, 0]; very loose			SV-09-05			0.0	10:00	Begin Direct Push
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; fine sand, silt [0, 90, 10]								
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs								
10									
15									

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946513.540
EASTING 583073.000
ANGLE Vertical

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-10 **SHEET** 1 **OF** 1
START DATE 6/20/2013 **ELEVATION DATA**
FINISH DATE 6/20/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 6 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND (SP); dark brown (10YR 3/3); dry; medium gravel, fine to medium sand, silt [5, 90, 5]; very loose; cobbles								Hand auger to 5 ft bgs
	Poorly-Graded SAND with gravel (SP); dark brown (10YR 3/3); dry; medium to coarse gravel; fine to medium sand; silt [15, 80, 5]; very loose; rounded cobbles								
	Poorly-Graded SAND (SP); dark brown (10YR 3/3); dry; fine to medium gravel, fine to coarse sand, silt [5, 90, 5]; very loose; rounded grains								
	@ 4 ft color changes to brown (10YR 4/3); medium to coarse sand [5, 95, 0]								
5					X			13:10	Begin Direct Push
	BOREHOLE TERMINATED TD = 6.0 ft bgs Vapor probe installed from 5.0-5.5 ft bgs Temporary well box completion							13:15	
10									
15									

CONTRACTOR Gregg Drilling **NORTHING** 1946542.050
EQUIPMENT Marl-2.5T **EASTING** 583070.420
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

REMARKS Installation of vapor probe. Temporary completion.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-11 **SHEET** 1 **OF** 1
START DATE 6/21/2013 **ELEVATION DATA**
FINISH DATE 6/21/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 15.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	Sample ID	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; fine sand, silt [0, 90, 10]; very loose				07:15	Hand auger to 5 ft bgs
	@ 1 ft increasing gravel					
	Well-Graded SAND (SW); brown (10YR 4/3); moist; fine to coarse gravel and sand, silt [15, 80, 5]; very loose; large subrounded gravel (up to 2" in diameter)	SBV-11-02			07:50	Hit obstruction at 2 ft bgs; moved over, restarted hand auger
5	Well-Graded SAND with silt (SW-SM); brown (10YR 4/3); moist; fine to coarse gravel, fine to medium sand, silt [5, 85, 10]; very loose	SBV-11-05	50	0.4	08:00	Begin Direct Push
	Poorly-Graded SAND with silt (SP-SM); brown (10YR 4/3); moist; fine gravel, medium to coarse sand, silt [5, 85, 10]; loose					
	Well-Graded SAND (SW); brown (10YR 5/3); dry; fine to coarse gravel and sand [5, 95, 0]; very loose					
	Silty SAND (SM); yellowish brown (10YR 4/4); moist; fine sand, more silt than clay [0, 70, 30]; low plasticity		60			
10		SBV-11-12		1.7	08:40	
			80	1.5		
	Well-Graded SAND with gravel (SW); brown (10YR 5/3); moist; fine to medium gravel, medium to coarse sand, silt [15, 80, 5]; medium density; angular to subangular granitic pebbles					
15	Poorly-Graded SAND with silt (SP-SM); yellowish brown (10YR 4/4); fine to medium sand, silt [0, 90, 10]; loose					Driller indicates hole collapsed
	BOREHOLE TERMINATED TD = 15.5 ft bgs Vapor probes installed from 8.0-8.5 and 14.5-15.0 ft bgs					

CONTRACTOR Gregg Drilling
EQUIPMENT Marl-2.5T
DRILL MTHD Direct Push
DIAMETER 4" (HA); 2" (DP)
LOGGER F. Mansfield **REVIEWER** S. Rehan

NORTHING 1946576.970
EASTING 583077.590
ANGLE Vertical

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-12 **SHEET** 1 **OF** 1
START DATE 7/15/2013 **ELEVATION DATA**
FINISH DATE 7/15/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 12.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete slab					100			Hand auger to 5 ft bgs
	Silty SAND (SM); dark brown (10YR 3/3); dry; fine to medium sand [5, 80, 15]; non-plastic; subangular gravels up to 0.25"						0.0	08:35	
	@ 4.5 ft increasing coarse material						0.2	08:45	
5	Poorly Graded SAND with gravel (SP); brown (10YR 5/3); dry; fine to medium sand, trace fines [15, 85, tr]; loose; non-plastic; subangular gravels up to 1"			SV-12-05		70	0.1	09:10 09:20	Begin Direct Push
						60	0.1	09:30	
10	Poorly Graded SAND with silt (SP-SM); yellowish brown (10YR 3/6); moist; fine to medium sand [5, 85, 10]; non-plastic						0.1		
				SV-12-12.5			0.3	09:35	Refusal encountered at 12.5 ft bgs. End drilling.
	BOREHOLE TERMINATED TD = 12.5 ft bgs Vapor probes installed from 5.0-5.5 and 12.0-12.5 ft bgs								
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 2"
LOGGER J. Sneider **REVIEWER** S. Rehan

REMARKS Installation of vapor probes. Terracore samples taken at 5 and 12.5 ft bgs.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-13 **SHEET** 1 **OF** 1
START DATE 7/16/2013 **ELEVATION DATA**
FINISH DATE 7/16/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 9 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete							10:55	Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 4/4); moist; fine to coarse gravel, fine to medium sand, silt [10, 60, 30]; very loose						0.2	10:59	
5				SV-13-05		50	0.2	11:04	Begin Direct Push
	Well Graded SAND with gravel (SW); yellow (10YR 7/6); moist; fine to coarse gravel, fine to coarse sand [25, 75, 0]; non-plastic; dense								
	BOREHOLE TERMINATED TD = 9.0 ft bgs Vapor probe installed from 6.0-6.5 ft bgs						0.3	11:45	Sand from the sidewalls stuffed into hole to approximately 6 ft bgs. When Ramset sampler was removed, hole was hand augered to 7 ft bgs where refusal was encountered due to stuffing sand in hole.
10									
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 4" (HA); 2" (DP)
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-14 **SHEET** 1 **OF** 1
START DATE 7/16/2013 **ELEVATION DATA**
FINISH DATE 7/16/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 9 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete/Tile/Concrete							09:15	Begin hand augering
	Silty SAND (SM); dark yellowish brown (10YR 3/4); moist; fine gravel, fine to medium sand, silt [5, 70, 25]; non-plastic; very loose						0.1	09:18	
5	@ 5 ft fine to coarse gravel, fine to medium sand silt [10, 75, 15]			SV-14-05 SV-14-05-DUP			0.3	09:26	
	Well Graded SAND (SW); yellowish brown (10YR 5/6); moist; fine to coarse gravel, fine to medium sand [10, 90, 0]; non-plastic; loose						0.2	09:37	
	BOREHOLE TERMINATED TD = 9.0 ft bgs Vapor probe installed from 8.0-8.5 ft bgs								Refusal at 9 ft bgs due to continuous stuffing of sand into hole.
10									
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Hand Auger **EASTING**
DRILL MTHD Hand Auger **ANGLE** Vertical
DIAMETER 4"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-15 **SHEET** 1 **OF** 1
START DATE 7/16/2013 **ELEVATION DATA**
FINISH DATE 7/16/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	2" Concrete, 2" Void, 2" Concrete							13:15	Begin hand augering
	Silty SAND (SM); dark yellowish brown (10YR 3/4); fine to coarse gravel, fine to medium sand, silt [10, 65, 25]; very loose						0.6	13:21	
5	BOREHOLE TERMINATED TD = 5.0 ft bgs Vapor probe installed from 4.2-4.8 ft bgs			SV-15-05			1.3	13:26	Refusal due to large rock or concrete
10									
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Hand Auger **EASTING**
DRILL MTHD Hand Auger **ANGLE** Vertical
DIAMETER 4"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Installation of vapor probe.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

Geosyntec consultants
1111 Broadway, 6th Fl
Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-16 **SHEET** 1 **OF** 1
START DATE 7/15/2013 **ELEVATION DATA**
FINISH DATE 7/15/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 11.5 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	GROUNDWATER	Sample ID	TYPE	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete					100			Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 3/4); moist; fine to medium sand [5, 80, 15]; non-plastic; subangular gravel up to 0.5"						0.0	15:06	
							0.0	15:09	
5	Gravelly SAND (SP); yellowish brown (10YR 5/6); dry; fine to coarse sand [25, 75, 0]; non-plastic; loose; subangular gravel up to 0.5"			SV-16-05		60	0.0	15:40	Being Direct Push
							0.0	15:55	
							0.0	16:05	
	No recovery					0		16:10	
10									
	BOREHOLE TERMINATED TD = 11.5 ft bgs Vapor probes installed from 5.0-5.5 and 9.0-9.5 ft bgs								Refusal at 11.5 ft bgs.
15									

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 2"
LOGGER J. Sneider **REVIEWER** S. Rehan

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

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Oakland, CA 94607
Phone: (510) 836-3034
Fax: (510) 836-3036

GS FORM: BORE_HYDROPUNCH

BOREHOLE RECORD

BORING SV-17 **SHEET** 1 **OF** 1
START DATE 7/16/2013 **ELEVATION DATA**
FINISH DATE 7/16/2013 **GROUND SURFACE**
LOCATION Chatsworth, CA **DATUM**
PROJECT KP Chatsworth **TOTAL DEPTH** 16 ft
PROJECT NUMBER WR1767/02 **DEPTH TO WATER** ft

DEPTH (ft)	MATERIAL DESCRIPTION	Sample ID	RECOVERY (%)	PID READING (ppm)	TIME	COMMENTS
	Concrete				14:15	Hand auger to 5 ft bgs
	Silty SAND (SM); dark yellowish brown (10YR 3/4); moist; fine gravel, fine to medium sand, silt [10, 60, 30]; non-plastic; very loose			0.2	14:20	
5	Well Graded SAND with gravel (SW); dark yellowish brown (10YR 3/4); moist; fine to coarse gravel, fine to medium sand, silt [20, 75, 5]; non-plastic; very loose	SV-17-05	40	0.7	14:24	Begin Direct Push
	@ 6 ft color changes to yellowish brown (10YR 5/6); fine to coarse gravel, fine to coarse sand [20, 80, 0]			0.1	14:55	
10			15	0.0	15:05	
	Well Graded SAND with silt and gravel (SW-SM); light yellowish brown (10YR 6/4); fine gravel, fine to coarse sand, silt [15, 65, 10]; non-plastic; dense		50	0.0	15:15	
15		SV-17-15				
	BOREHOLE TERMINATED TD = 16.0 ft bgs Vapor probes installed from 5.0-5.5 and 13.5-14.0 ft bgs					Refusal at 16 ft bgs. Hole stuffed in from 16 to 14.5 ft bgs when Ramset pulled out. Longer probe tip for deeper probe.

CONTRACTOR Gregg Drilling **NORTHING**
EQUIPMENT Ramset **EASTING**
DRILL MTHD Direct Push **ANGLE** Vertical
DIAMETER 2"
LOGGER B. Cozzens **REVIEWER** S. Rehan

REMARKS Installation of vapor probes.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORE_HYDROPUNCH KAISERCHATSWORTH.GPJ GEOSNTEC.GDT 8/30/13

APPENDIX B

Los Angeles Public Health Department Permit

ENVIRONMENTAL HEALTH

Drinking Water Program

5050 Commerce Drive, Baldwin Park, CA 91706
Telephone: (626) 430-5420 • Facsimile: (626) 813-3013 • Email: waterquality@ph.lacounty.gov
http://publichealth.lacounty.gov/eh/ep/dw/dw_main.htm

COUNTY OF LOS ANGELES
Public Health

Well Permit Approval

TO BE COMPLETED BY APPLICANT:

WORK SITE ADDRESS	CITY	ZIP	EMAIL ADDRESS FOR WELL PERMIT APPROVAL
20504 Lassen Street	Chatsworth, CA	91311	fmansfield@geosyntec.com

NOTICE:

- WORK PLAN APPROVALS ARE VALID FOR 180 DAYS. 30 DAY EXTENSIONS OF WORK PLAN APPROVALS ARE CONSIDERED ON AN INDIVIDUAL (CASE-BY-CASE) BASIS AND MAY BE SUBJECT TO ADDITIONAL PLAN REVIEW FEES (HOURLY RATE AS APPLICABLE).
- WORK PLAN MODIFICATIONS MAY BE REQUIRED IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED AT THE SITE INSPECTION ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- THIS WELL PERMIT APPROVAL IS LIMITED TO COMPLIANCE WITH THE CALIFORNIA WELL STANDARDS AND THE LOS ANGELES COUNTY CODE AND DOES NOT GRANT ANY RIGHTS TO CONSTRUCT, RENOVATE, OR DECOMMISSION ANY WELL. THE APPLICANT IS RESPONSIBLE FOR SECURING ALL OTHER NECESSARY PERMITS SUCH AS WATER RIGHTS, PROPERTY RIGHTS, COASTAL COMMISSION APPROVALS, USE COVENANTS, ENCROACHMENT PERMISSIONS, UTILITY LINE SETBACKS, CITY/COUNTY PUBLIC WORKS RIGHTS OF WAY, ETC.
- ALL FIELD WORK MUST BE CONDUCTED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOLOGIST LICENSED IN THE STATE OF CALIFORNIA.
- THIS PERMIT IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE SIGNED BY THE DEPUTY HEALTH OFFICER. WORK SHALL NOT BE INITIATED WITHOUT A WORK PLAN APPROVAL STAMPED BY THE DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM.
- **NOTIFY THE DRINKING WATER PROGRAM BY EMAIL 3 BUSINESS DAYS BEFORE WORK IS SCHEDULED TO BEGIN.**

TO BE COMPLETED BY DEPARTMENT OF PUBLIC HEALTH—DRINKING WATER PROGRAM:

☐ WORK PLAN INCOMPLETE; SUBMIT THE FOLLOWING:

☒ WORK PLAN APPROVED

Los Angeles County Drinking Water stamp

5919

DATE: 12 June 2013

ADDITIONAL APPROVAL CONDITIONS:

Permit #892802-1~3 groundwater monitoring wells.
Observe work plan submitted, and maintain all
set-backs. All field work must be conducted by or under
The direct supervision of a licensed Professional/
Geologist / Engineer in the state of California.
Please notify 72 hours prior to start field work.
ajuarez@ph.lacounty.gov 213-760-9742

Arnoldo Juarez

☐ ANNULAR SEAL FINAL INSPECTION REQUIRED		☐ WELL COMPLETION LOG REQUIRED	
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature
☐ WATER QUALITY—BACTERIOLOGICAL STANDARDS REQUIRED		☐ WATER QUALITY—CHEMICAL STANDARDS REQUIRED	
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature
☐ WATER SUPPLY YIELD REQUIRED		☐ OTHER REQUIREMENT	
DATE ACCEPTED:	REHS signature	DATE ACCEPTED:	REHS signature

Revised: October 2012

APPENDIX C

Waste Manifests

NO. 703740

NON-HAZARDOUS WASTE DATA FORM

BESI # 224766

GENERATOR

Generator's Name and Malling Address
KAISER FOUNDATION HEALTH PLAN
393 E. WALNUT STREET
PASADENA , CA 91188

Generator's Site Address (if different than malling address)
KP CHATSWORTH
20504 LASSEN ST.
CHATSWORTH, CA 91311

Generator's Phone: 626-405-5274

Container type removed from site:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 1

Container type transported to receiving facility:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 1 Volume 250 pounds

WASTE DESCRIPTION NON-HAZARDOUS SOIL

GENERATING PROCESS SITE INVESTIGATION (DRILL CUTTINGS)

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. SOIL	97-100	%	3.		
2. DEBRIS	<3	%	4.		

Waste Profile 070128043-8211 PROPERTIES: pH ____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER ____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: Roxana Ramirez * on behalf of Kaiser Foundation Health Plan
Signature: Roxana Ramirez
Month 8 Day 13 Year 2013

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE
Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra
Signature: [signature]
Month 8 Day 13 Year 13

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name:
Phone#:

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address
US ECOLOGY, NEVADA OPERATIONS
HIGHWAY 95, 11 MILES S. OF BEATTY
BEATTY, NV 89003

Phone#: 775-553-2203

Printed/Typed Name: Tyler Young
Signature: Tyler Young
Month 8 Day 28 Year 13

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
08/13/13		393/740	A07	41497	001

Generator and/or Consultant

Generator's Name and Billing Address: KAISER FOUNDATION HEALTH PLAN 393 E. WALNUT STREET PASADENA, CA 91188	Generator's Phone #: 626-405-5274 Person to Contact: FAX#:	Customer Account Number
Consultant's Name and Billing Address:	Consultant's Phone #: Person to Contact: FAX#:	Customer Account Number
Generation Site (Transport from): *(name & address)* KP CHATSWORTH 20504 LASSEN ST. CHATSWORTH, CA 91311	Site Phone #: Person to Contact: FAX#:	
Designated Facility (Transport to): *(name & address)* SOIL SAFE 12328 HIBISCUS AVENUE ADELANTO, CA 92301	Facility Phone #: (800) 862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760) 246-8004	
Transporter Name and Mailing Address: BELSHIRE 25971 TOWNE CENTRE DRIVE FOOTHILL RANCH, CA 92610 BESI: 222109	Transporter's Phone #: 949-460-6200 Person to Contact: LARRY MOOTHART FAX#: 949-460-5210	CAR000183913 460647 Customer Account Number

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐	9 yards		52240	36940	15300
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					7.65

List any exception to items listed above: Bin # R27955PL Scale Ticket #

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils descried in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ — Signature and date: — Month 8 Day 13 Year 13

Transporter

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: PAUL DELGADO — Signature and date: — Month 8 Day 13 Year 13

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL — Signature and date: 8-13-13

Please print or type.

TRANSPORTER COPY

APPENDIX D

Laboratory Analytical Reports

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1375

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR 1767

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 06/27/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1375

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1375 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/20/13. They were assigned to Work Order 13-06-1375.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-07-02 (13-06-1375-1)						
Arsenic	4.76		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	110		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.447		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.82		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.42		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	16.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	4.04		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.64		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	47.3		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00690	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
SV-07-05 (13-06-1375-2)						
Arsenic	2.79		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	73.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.278		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.20		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.51		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.20		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.41		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.01		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	32.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Acetone	25	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.89	J	0.13*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.8	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.44	J	0.15*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.96	J	0.51*	ug/kg	EPA 8260B	EPA 5035
SV-07-15 (13-06-1375-3)						
Acetone	21	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.0		0.88	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.61	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	1.1		0.88	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.31	J	0.24*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-08-02 (13-06-1375-4)						
Arsenic	4.36		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	112		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.392		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.92		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.78		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.42		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.92		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	46.1		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00666	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
SV-08-05 (13-06-1375-5)						
Arsenic	2.88		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	68.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.261		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.48		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.32		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.66		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.19		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.90		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	30.1		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00656	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	25	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.2		0.98	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.7	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.42	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.63	J	0.15*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	2.0		0.98	ug/kg	EPA 8260B	EPA 5035
Toluene	1.3		0.98	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.50	J	0.29*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.30	J	0.26*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-08-05 DUP (13-06-1375-6)						
Arsenic	2.90		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	73.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.272		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.23		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	13.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.31		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	8.95		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.26		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.23		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	31.1		1.00	mg/kg	EPA 6010B	EPA 3050B
Acetone	25	J	5.4*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.93		0.86	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.2	J	3.2*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.33	J	0.26*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.62	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.4		0.86	ug/kg	EPA 8260B	EPA 5035
Toluene	1.1		0.86	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.35	J	0.23*	ug/kg	EPA 8260B	EPA 5035
SV-08-10 (13-06-1375-7)						
Acetone	24	J	6.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.1		0.96	ug/kg	EPA 8260B	EPA 5035
2-Butanone	9.8	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.98		0.96	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.9		0.96	ug/kg	EPA 8260B	EPA 5035
Toluene	1.5		0.96	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.71	J	0.29*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.41	J	0.26*	ug/kg	EPA 8260B	EPA 5035

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-10-02 (13-06-1375-8)						
Arsenic	2.36		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	53.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.201	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.18		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.98		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.79		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	7.10		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.57		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.72		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	11.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	24.4		1.00	mg/kg	EPA 6010B	EPA 3050B
SV-10-05 (13-06-1375-9)						
Arsenic	2.09		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	49.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.164	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.951		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.52		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.36		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	5.55		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.25		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.03		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	19.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	20.9		1.00	mg/kg	EPA 6010B	EPA 3050B
SBV-07-05 (13-06-1375-10)						
Acetone	30	J	5.4*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.91		0.87	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.6	J	3.3*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.35	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.33	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	2.9		0.87	ug/kg	EPA 8260B	EPA 5035
Toluene	0.85	J	0.45*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.081		0.020	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Acenaphthene	0.0078	J	0.0036*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.0027	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-07-11 (13-06-1375-11)						
Acetone	22	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.2		0.87	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.0	J	3.3*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.56	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.2		0.87	ug/kg	EPA 8260B	EPA 5035
Toluene	1.3		0.87	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.37	J	0.23*	ug/kg	EPA 8260B	EPA 5035
Pyrene	0.0024	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-07-21 (13-06-1375-12)						
Acetone	19	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.6		0.93	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.7	J	3.5*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.93	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	2.2		0.93	ug/kg	EPA 8260B	EPA 5035
Toluene	2.5		0.93	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.63	J	0.25*	ug/kg	EPA 8260B	EPA 5035
SBV-07-30 (13-06-1375-13)						
Acetone	11	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.0		0.79	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.29	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.79	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.6		0.79	ug/kg	EPA 8260B	EPA 5035
Toluene	2.2		0.79	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.53	J	0.21*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.018	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0021	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0030	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-07-40 (13-06-1375-14)						
Acetone	9.0	J	5.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.12	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.74	J	0.17*	ug/kg	EPA 8260B	EPA 5035

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-3-080 (13-06-1375-15)						
Acetone	18	J	4.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.6		0.75	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.0	J	2.8*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.22	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.40	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.95		0.75	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	3.9		1.5	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.24	J	0.20*	ug/kg	EPA 8260B	EPA 5035
SBG-3-100 (13-06-1375-16)						
Acetone	27	J	5.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.54	J	0.11*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.7	J	3.2*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.13	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.53	J	0.43*	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.46	J	0.25*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.24	J	0.22*	ug/kg	EPA 8260B	EPA 5035
SBG-3-120 (13-06-1375-17)						
Acetone	21	J	4.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.37	J	0.10*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.1	J	2.9*	ug/kg	EPA 8260B	EPA 5035
Chloroform	0.27	J	0.19*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.78		0.78	ug/kg	EPA 8260B	EPA 5035
Toluene	0.92		0.78	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	1.8		1.6	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.24	J	0.21*	ug/kg	EPA 8260B	EPA 5035
SBG-3-125 (13-06-1375-18)						
Acetone	15	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.2		0.93	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.3	J	3.5*	ug/kg	EPA 8260B	EPA 5035
Chloroform	0.29	J	0.22*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.5		0.93	ug/kg	EPA 8260B	EPA 5035
Toluene	5.2		0.93	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.59	J	0.55*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.6	J	0.25*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.56	J	0.52*	ug/kg	EPA 8260B	EPA 5035

Return to Contents

* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1375
Project Name: KP Chatsworth / WR 1767
Received: 06/20/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-3-GW (13-06-1375-19)						
Benzene	0.26	J	0.14*	ug/L	EPA 8260B	EPA 5030C
Chloroform	4.8		1.0	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	0.22	J	0.14*	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	0.86	J	0.39*	ug/L	EPA 8260B	EPA 5030C
Toluene	0.38	J	0.24*	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	22		1.0	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-GW	**13-06-1375-19-F**	**06/20/13 14:20**	**Aqueous**	**GC 46**	**06/21/13**	**06/22/13 00:15**	**130621B05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	68-140	

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	68-140	

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	104	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-GW	**13-06-1375-19-F**	**06/20/13 14:20**	**Aqueous**	**GC 46**	**06/21/13**	**06/22/13 00:15**	**130621B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-1	**13-06-1375-20-F**	**06/20/13 15:38**	**Aqueous**	**GC 46**	**06/21/13**	**06/22/13 00:32**	**130621B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-296-137**	**N/A**	**Aqueous**	**GC 46**	**01/01/95**	**06/21/13 22:54**	**130621B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	104	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-GW	**13-06-1375-19-D**	**06/20/13 14:20**	**Aqueous**	**GC 56**	**06/22/13**	**06/22/13 15:43**	**130622B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	82	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-1	**13-06-1375-20-D**	**06/20/13 15:38**	**Aqueous**	**GC 56**	**06/22/13**	**06/22/13 15:11**	**130622B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	88	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-704-429**	**N/A**	**Aqueous**	**GC 56**	**06/22/13**	**06/22/13 11:02**	**130622B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	79	38-134	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-02	**13-06-1375-1-A**	**06/20/13 09:15**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:18**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.76	0.750	0.259	1	
Barium	110	0.500	0.154	1	
Beryllium	0.447	0.250	0.137	1	
Cadmium	1.82	0.500	0.135	1	
Chromium	19.6	0.250	0.142	1	
Cobalt	8.42	0.250	0.148	1	
Copper	16.0	0.500	0.135	1	
Lead	4.04	0.500	0.132	1	
Molybdenum	2.64	0.250	0.132	1	
Nickel	24.9	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	43.9	0.250	0.141	1	
Zinc	47.3	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-05	**13-06-1375-2-A**	**06/20/13 09:20**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:20**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.79	0.750	0.259	1	
Barium	73.4	0.500	0.154	1	
Beryllium	0.278	0.250	0.137	1	
Cadmium	1.20	0.500	0.135	1	
Chromium	12.2	0.250	0.142	1	
Cobalt	5.51	0.250	0.148	1	
Copper	9.20	0.500	0.135	1	
Lead	2.41	0.500	0.132	1	
Molybdenum	2.01	0.250	0.132	1	
Nickel	15.1	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	29.5	0.250	0.141	1	
Zinc	32.4	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-02	**13-06-1375-4-A**	**06/20/13 11:00**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:21**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.36	0.750	0.259	1	
Barium	112	0.500	0.154	1	
Beryllium	0.392	0.250	0.137	1	
Cadmium	1.92	0.500	0.135	1	
Chromium	19.7	0.250	0.142	1	
Cobalt	7.78	0.250	0.148	1	
Copper	15.9	0.500	0.135	1	
Lead	3.42	0.500	0.132	1	
Molybdenum	2.92	0.250	0.132	1	
Nickel	24.7	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	44.4	0.250	0.141	1	
Zinc	46.1	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05	**13-06-1375-5-A**	**06/20/13 11:15**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:22**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.88	0.750	0.259	1	
Barium	68.3	0.500	0.154	1	
Beryllium	0.261	0.250	0.137	1	
Cadmium	1.48	0.500	0.135	1	
Chromium	13.9	0.250	0.142	1	
Cobalt	5.32	0.250	0.148	1	
Copper	9.66	0.500	0.135	1	
Lead	2.19	0.500	0.132	1	
Molybdenum	1.90	0.250	0.132	1	
Nickel	15.1	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	33.2	0.250	0.141	1	
Zinc	30.1	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05 DUP	**13-06-1375-6-A**	**06/20/13 11:20**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:23**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.90	0.750	0.259	1	
Barium	73.3	0.500	0.154	1	
Beryllium	0.272	0.250	0.137	1	
Cadmium	1.23	0.500	0.135	1	
Chromium	13.1	0.250	0.142	1	
Cobalt	5.31	0.250	0.148	1	
Copper	8.95	0.500	0.135	1	
Lead	2.26	0.500	0.132	1	
Molybdenum	2.23	0.250	0.132	1	
Nickel	15.6	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	30.7	0.250	0.141	1	
Zinc	31.1	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-10-02	**13-06-1375-8-A**	**06/20/13 13:10**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:25**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.36	0.750	0.259	1	
Barium	53.6	0.500	0.154	1	
Beryllium	0.201	0.250	0.137	1	J
Cadmium	1.18	0.500	0.135	1	
Chromium	8.98	0.250	0.142	1	
Cobalt	3.79	0.250	0.148	1	
Copper	7.10	0.500	0.135	1	
Lead	1.57	0.500	0.132	1	
Molybdenum	1.72	0.250	0.132	1	
Nickel	11.2	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	22.8	0.250	0.141	1	
Zinc	24.4	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-10-05	**13-06-1375-9-A**	**06/20/13 13:15**	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:28**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.09	0.750	0.259	1	
Barium	49.0	0.500	0.154	1	
Beryllium	0.164	0.250	0.137	1	J
Cadmium	0.951	0.500	0.135	1	
Chromium	8.52	0.250	0.142	1	
Cobalt	3.36	0.250	0.148	1	
Copper	5.55	0.500	0.135	1	
Lead	1.25	0.500	0.132	1	
Molybdenum	2.03	0.250	0.132	1	
Nickel	10.7	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	19.8	0.250	0.141	1	
Zinc	20.9	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-16952**	**N/A**	**Soil**	**ICP 7300**	**06/21/13**	**06/24/13 17:30**	**130621L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	ND	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-02	**13-06-1375-1-A**	**06/20/13 09:15**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:30**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00690	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-05	**13-06-1375-2-A**	**06/20/13 09:20**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:33**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-02	**13-06-1375-4-A**	**06/20/13 11:00**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:39**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00666	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05	**13-06-1375-5-A**	**06/20/13 11:15**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:41**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00656	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05 DUP	**13-06-1375-6-A**	**06/20/13 11:20**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:44**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-10-02	**13-06-1375-8-A**	**06/20/13 13:10**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:50**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-10-05	**13-06-1375-9-A**	**06/20/13 13:15**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:52**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9382**	**N/A**	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:26**	**130621L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-05	**13-06-1375-10-A**	**06/20/13 14:20**	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 18:15**	**130625L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.081	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	0.0078	0.020	0.0036	1	J
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.0027	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	14-146	
Nitrobenzene-d5	90	18-162	
p-Terphenyl-d14	105	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-11	**13-06-1375-11-A**	**06/20/13 14:30**	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 18:38**	**130625L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	0.0024	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	14-146	
Nitrobenzene-d5	125	18-162	
p-Terphenyl-d14	114	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-21	**13-06-1375-12-A**	**06/20/13 14:55**	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 19:01**	**130625L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	72	14-146	
Nitrobenzene-d5	98	18-162	
p-Terphenyl-d14	104	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-30	**13-06-1375-13-A**	**06/20/13 15:05**	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 19:24**	**130625L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.018	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0021	0.020	0.0020	1	J
Pyrene	0.0030	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	78	14-146	
Nitrobenzene-d5	94	18-162	
p-Terphenyl-d14	102	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-1713**	**N/A**	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 17:28**	**130625L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	14-146	
Nitrobenzene-d5	101	18-162	
p-Terphenyl-d14	112	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-05	**13-06-1375-2-D**	**06/20/13 09:20**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 13:40**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	49	6.2	0.986	J
Benzene	0.89	0.99	0.13	0.986	J
Bromobenzene	ND	0.99	0.21	0.986	
Bromochloromethane	ND	2.0	0.68	0.986	
Bromodichloromethane	ND	0.99	0.23	0.986	
Bromoform	ND	4.9	0.78	0.986	
Bromomethane	ND	20	9.3	0.986	
2-Butanone	3.8	20	3.7	0.986	J
n-Butylbenzene	ND	0.99	0.15	0.986	
sec-Butylbenzene	ND	0.99	0.57	0.986	
tert-Butylbenzene	ND	0.99	0.15	0.986	
Carbon Disulfide	ND	9.9	0.30	0.986	
Carbon Tetrachloride	ND	0.99	0.28	0.986	
Chlorobenzene	ND	0.99	0.22	0.986	
Chloroethane	ND	2.0	1.9	0.986	
Chloroform	ND	0.99	0.24	0.986	
Chloromethane	ND	20	0.68	0.986	
2-Chlorotoluene	ND	0.99	0.23	0.986	
4-Chlorotoluene	ND	0.99	0.21	0.986	
Dibromochloromethane	ND	2.0	0.56	0.986	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.986	
1,2-Dibromoethane	ND	0.99	0.25	0.986	
Dibromomethane	ND	0.99	0.76	0.986	
1,2-Dichlorobenzene	ND	0.99	0.23	0.986	
1,3-Dichlorobenzene	ND	0.99	0.17	0.986	
1,4-Dichlorobenzene	ND	0.99	0.22	0.986	
Dichlorodifluoromethane	ND	2.0	0.44	0.986	
1,1-Dichloroethane	ND	0.99	0.99	0.986	
1,2-Dichloroethane	ND	0.99	0.31	0.986	
1,1-Dichloroethene	ND	0.99	0.34	0.986	
c-1,2-Dichloroethene	ND	0.99	0.28	0.986	
t-1,2-Dichloroethene	ND	0.99	0.50	0.986	
1,2-Dichloropropane	ND	0.99	0.43	0.986	
1,3-Dichloropropane	ND	0.99	0.25	0.986	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.33	0.986	
1,1-Dichloropropene	ND	2.0	0.32	0.986	
c-1,3-Dichloropropene	ND	0.99	0.25	0.986	
t-1,3-Dichloropropene	ND	2.0	0.60	0.986	
Ethylbenzene	0.44	0.99	0.15	0.986	J
2-Hexanone	ND	20	1.7	0.986	
Isopropylbenzene	ND	0.99	0.54	0.986	
p-Isopropyltoluene	ND	0.99	0.62	0.986	
Methylene Chloride	ND	9.9	1.3	0.986	
4-Methyl-2-Pentanone	ND	20	4.3	0.986	
Naphthalene	ND	9.9	0.80	0.986	
n-Propylbenzene	ND	2.0	0.49	0.986	
Styrene	ND	0.99	0.60	0.986	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	0.986	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.986	
Tetrachloroethene	ND	0.99	0.21	0.986	
Toluene	0.96	0.99	0.51	0.986	J
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.986	
1,2,4-Trichlorobenzene	ND	2.0	0.31	0.986	
1,1,1-Trichloroethane	ND	0.99	0.22	0.986	
1,1,2-Trichloroethane	ND	0.99	0.94	0.986	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	0.986	
Trichloroethene	ND	2.0	0.30	0.986	
Trichlorofluoromethane	ND	9.9	0.37	0.986	
1,2,3-Trichloropropane	ND	2.0	0.68	0.986	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.986	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.986	
Vinyl Acetate	ND	9.9	4.7	0.986	
Vinyl Chloride	ND	0.99	0.50	0.986	
p/m-Xylene	ND	2.0	0.26	0.986	
o-Xylene	ND	0.99	0.55	0.986	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.986	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.986	
Diisopropyl Ether (DIPE)	ND	0.99	0.48	0.986	
Ethyl-t-Butyl Ether (ETBE)	ND	0.99	0.50	0.986	
Tert-Amyl-Methyl Ether (TAME)	ND	0.99	0.35	0.986	
Ethanol	ND	490	82	0.986	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 3 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	103	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-07-15	**13-06-1375-3-C**	**06/20/13 10:10**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 14:07**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	21	44	5.5	0.879	J
Benzene	1.0	0.88	0.11	0.879	
Bromobenzene	ND	0.88	0.18	0.879	
Bromochloromethane	ND	1.8	0.61	0.879	
Bromodichloromethane	ND	0.88	0.20	0.879	
Bromoform	ND	4.4	0.70	0.879	
Bromomethane	ND	18	8.3	0.879	
2-Butanone	ND	18	3.3	0.879	
n-Butylbenzene	ND	0.88	0.14	0.879	
sec-Butylbenzene	ND	0.88	0.51	0.879	
tert-Butylbenzene	ND	0.88	0.13	0.879	
Carbon Disulfide	ND	8.8	0.27	0.879	
Carbon Tetrachloride	ND	0.88	0.25	0.879	
Chlorobenzene	ND	0.88	0.20	0.879	
Chloroethane	ND	1.8	1.7	0.879	
Chloroform	ND	0.88	0.21	0.879	
Chloromethane	ND	18	0.60	0.879	
2-Chlorotoluene	ND	0.88	0.20	0.879	
4-Chlorotoluene	ND	0.88	0.19	0.879	
Dibromochloromethane	ND	1.8	0.50	0.879	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.879	
1,2-Dibromoethane	ND	0.88	0.22	0.879	
Dibromomethane	ND	0.88	0.68	0.879	
1,2-Dichlorobenzene	ND	0.88	0.20	0.879	
1,3-Dichlorobenzene	ND	0.88	0.15	0.879	
1,4-Dichlorobenzene	ND	0.88	0.20	0.879	
Dichlorodifluoromethane	ND	1.8	0.39	0.879	
1,1-Dichloroethane	ND	0.88	0.88	0.879	
1,2-Dichloroethane	ND	0.88	0.28	0.879	
1,1-Dichloroethene	ND	0.88	0.30	0.879	
c-1,2-Dichloroethene	ND	0.88	0.25	0.879	
t-1,2-Dichloroethene	ND	0.88	0.44	0.879	
1,2-Dichloropropane	ND	0.88	0.39	0.879	
1,3-Dichloropropane	ND	0.88	0.22	0.879	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.879	
1,1-Dichloropropene	ND	1.8	0.29	0.879	
c-1,3-Dichloropropene	ND	0.88	0.22	0.879	
t-1,3-Dichloropropene	ND	1.8	0.53	0.879	
Ethylbenzene	0.61	0.88	0.13	0.879	J
2-Hexanone	ND	18	1.5	0.879	
Isopropylbenzene	ND	0.88	0.48	0.879	
p-Isopropyltoluene	ND	0.88	0.55	0.879	
Methylene Chloride	ND	8.8	1.2	0.879	
4-Methyl-2-Pentanone	ND	18	3.8	0.879	
Naphthalene	ND	8.8	0.72	0.879	
n-Propylbenzene	ND	1.8	0.44	0.879	
Styrene	ND	0.88	0.53	0.879	
1,1,1,2-Tetrachloroethane	ND	0.88	0.21	0.879	
1,1,2,2-Tetrachloroethane	ND	1.8	0.30	0.879	
Tetrachloroethene	ND	0.88	0.18	0.879	
Toluene	1.1	0.88	0.45	0.879	
1,2,3-Trichlorobenzene	ND	1.8	0.80	0.879	
1,2,4-Trichlorobenzene	ND	1.8	0.27	0.879	
1,1,1-Trichloroethane	ND	0.88	0.20	0.879	
1,1,2-Trichloroethane	ND	0.88	0.84	0.879	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	0.31	0.879	
Trichloroethene	ND	1.8	0.26	0.879	
Trichlorofluoromethane	ND	8.8	0.33	0.879	
1,2,3-Trichloropropane	ND	1.8	0.60	0.879	
1,2,4-Trimethylbenzene	ND	1.8	0.52	0.879	
1,3,5-Trimethylbenzene	ND	1.8	0.48	0.879	
Vinyl Acetate	ND	8.8	4.2	0.879	
Vinyl Chloride	ND	0.88	0.44	0.879	
p/m-Xylene	0.31	1.8	0.24	0.879	J
o-Xylene	ND	0.88	0.49	0.879	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.879	
Tert-Butyl Alcohol (TBA)	ND	18	4.5	0.879	
Diisopropyl Ether (DIPE)	ND	0.88	0.42	0.879	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	0.44	0.879	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	0.31	0.879	
Ethanol	ND	440	73	0.879	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 6 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	103	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05	**13-06-1375-5-D**	**06/20/13 11:15**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 14:34**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	49	6.1	0.98	J
Benzene	1.2	0.98	0.13	0.98	
Bromobenzene	ND	0.98	0.21	0.98	
Bromochloromethane	ND	2.0	0.68	0.98	
Bromodichloromethane	ND	0.98	0.23	0.98	
Bromoform	ND	4.9	0.78	0.98	
Bromomethane	ND	20	9.2	0.98	
2-Butanone	3.7	20	3.7	0.98	J
n-Butylbenzene	ND	0.98	0.15	0.98	
sec-Butylbenzene	ND	0.98	0.57	0.98	
tert-Butylbenzene	ND	0.98	0.15	0.98	
Carbon Disulfide	0.42	9.8	0.30	0.98	J
Carbon Tetrachloride	ND	0.98	0.28	0.98	
Chlorobenzene	ND	0.98	0.22	0.98	
Chloroethane	ND	2.0	1.8	0.98	
Chloroform	ND	0.98	0.23	0.98	
Chloromethane	ND	20	0.67	0.98	
2-Chlorotoluene	ND	0.98	0.23	0.98	
4-Chlorotoluene	ND	0.98	0.21	0.98	
Dibromochloromethane	ND	2.0	0.56	0.98	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.98	
1,2-Dibromoethane	ND	0.98	0.25	0.98	
Dibromomethane	ND	0.98	0.76	0.98	
1,2-Dichlorobenzene	ND	0.98	0.22	0.98	
1,3-Dichlorobenzene	ND	0.98	0.17	0.98	
1,4-Dichlorobenzene	ND	0.98	0.22	0.98	
Dichlorodifluoromethane	ND	2.0	0.43	0.98	
1,1-Dichloroethane	ND	0.98	0.98	0.98	
1,2-Dichloroethane	ND	0.98	0.31	0.98	
1,1-Dichloroethene	ND	0.98	0.34	0.98	
c-1,2-Dichloroethene	ND	0.98	0.27	0.98	
t-1,2-Dichloroethene	ND	0.98	0.50	0.98	
1,2-Dichloropropane	ND	0.98	0.43	0.98	
1,3-Dichloropropane	ND	0.98	0.25	0.98	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.98	
1,1-Dichloropropene	ND	2.0	0.32	0.98	
c-1,3-Dichloropropene	ND	0.98	0.25	0.98	
t-1,3-Dichloropropene	ND	2.0	0.59	0.98	
Ethylbenzene	0.63	0.98	0.15	0.98	J
2-Hexanone	ND	20	1.7	0.98	
Isopropylbenzene	ND	0.98	0.54	0.98	
p-Isopropyltoluene	ND	0.98	0.62	0.98	
Methylene Chloride	ND	9.8	1.3	0.98	
4-Methyl-2-Pentanone	ND	20	4.2	0.98	
Naphthalene	ND	9.8	0.80	0.98	
n-Propylbenzene	ND	2.0	0.49	0.98	
Styrene	ND	0.98	0.59	0.98	
1,1,1,2-Tetrachloroethane	ND	0.98	0.24	0.98	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.98	
Tetrachloroethene	2.0	0.98	0.21	0.98	
Toluene	1.3	0.98	0.50	0.98	
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.98	
1,2,4-Trichlorobenzene	ND	2.0	0.30	0.98	
1,1,1-Trichloroethane	ND	0.98	0.22	0.98	
1,1,2-Trichloroethane	ND	0.98	0.93	0.98	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.8	0.34	0.98	
Trichloroethene	0.50	2.0	0.29	0.98	J
Trichlorofluoromethane	ND	9.8	0.37	0.98	
1,2,3-Trichloropropane	ND	2.0	0.67	0.98	
1,2,4-Trimethylbenzene	ND	2.0	0.57	0.98	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.98	
Vinyl Acetate	ND	9.8	4.7	0.98	
Vinyl Chloride	ND	0.98	0.49	0.98	
p/m-Xylene	0.30	2.0	0.26	0.98	J
o-Xylene	ND	0.98	0.55	0.98	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.98	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.98	
Diisopropyl Ether (DIPE)	ND	0.98	0.47	0.98	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	0.50	0.98	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	0.35	0.98	
Ethanol	ND	490	82	0.98	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 9 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	102	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-05 DUP	**13-06-1375-6-D**	**06/20/13 11:20**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 15:02**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	43	5.4	0.859	J
Benzene	0.93	0.86	0.11	0.859	
Bromobenzene	ND	0.86	0.18	0.859	
Bromochloromethane	ND	1.7	0.59	0.859	
Bromodichloromethane	ND	0.86	0.20	0.859	
Bromoform	ND	4.3	0.68	0.859	
Bromomethane	ND	17	8.1	0.859	
2-Butanone	4.2	17	3.2	0.859	J
n-Butylbenzene	ND	0.86	0.13	0.859	
sec-Butylbenzene	ND	0.86	0.50	0.859	
tert-Butylbenzene	ND	0.86	0.13	0.859	
Carbon Disulfide	0.33	8.6	0.26	0.859	J
Carbon Tetrachloride	ND	0.86	0.24	0.859	
Chlorobenzene	ND	0.86	0.19	0.859	
Chloroethane	ND	1.7	1.6	0.859	
Chloroform	ND	0.86	0.21	0.859	
Chloromethane	ND	17	0.59	0.859	
2-Chlorotoluene	ND	0.86	0.20	0.859	
4-Chlorotoluene	ND	0.86	0.18	0.859	
Dibromochloromethane	ND	1.7	0.49	0.859	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.5	0.859	
1,2-Dibromoethane	ND	0.86	0.22	0.859	
Dibromomethane	ND	0.86	0.67	0.859	
1,2-Dichlorobenzene	ND	0.86	0.20	0.859	
1,3-Dichlorobenzene	ND	0.86	0.15	0.859	
1,4-Dichlorobenzene	ND	0.86	0.19	0.859	
Dichlorodifluoromethane	ND	1.7	0.38	0.859	
1,1-Dichloroethane	ND	0.86	0.86	0.859	
1,2-Dichloroethane	ND	0.86	0.27	0.859	
1,1-Dichloroethene	ND	0.86	0.30	0.859	
c-1,2-Dichloroethene	ND	0.86	0.24	0.859	
t-1,2-Dichloroethene	ND	0.86	0.43	0.859	
1,2-Dichloropropane	ND	0.86	0.38	0.859	
1,3-Dichloropropane	ND	0.86	0.22	0.859	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.3	0.28	0.859	
1,1-Dichloropropene	ND	1.7	0.28	0.859	
c-1,3-Dichloropropene	ND	0.86	0.22	0.859	
t-1,3-Dichloropropene	ND	1.7	0.52	0.859	
Ethylbenzene	0.62	0.86	0.13	0.859	J
2-Hexanone	ND	17	1.5	0.859	
Isopropylbenzene	ND	0.86	0.47	0.859	
p-Isopropyltoluene	ND	0.86	0.54	0.859	
Methylene Chloride	ND	8.6	1.1	0.859	
4-Methyl-2-Pentanone	ND	17	3.7	0.859	
Naphthalene	ND	8.6	0.70	0.859	
n-Propylbenzene	ND	1.7	0.43	0.859	
Styrene	ND	0.86	0.52	0.859	
1,1,1,2-Tetrachloroethane	ND	0.86	0.21	0.859	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	0.859	
Tetrachloroethene	1.4	0.86	0.18	0.859	
Toluene	1.1	0.86	0.44	0.859	
1,2,3-Trichlorobenzene	ND	1.7	0.78	0.859	
1,2,4-Trichlorobenzene	ND	1.7	0.27	0.859	
1,1,1-Trichloroethane	ND	0.86	0.19	0.859	
1,1,2-Trichloroethane	ND	0.86	0.82	0.859	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	0.30	0.859	
Trichloroethene	ND	1.7	0.26	0.859	
Trichlorofluoromethane	ND	8.6	0.32	0.859	
1,2,3-Trichloropropane	ND	1.7	0.59	0.859	
1,2,4-Trimethylbenzene	ND	1.7	0.50	0.859	
1,3,5-Trimethylbenzene	ND	1.7	0.47	0.859	
Vinyl Acetate	ND	8.6	4.1	0.859	
Vinyl Chloride	ND	0.86	0.43	0.859	
p/m-Xylene	0.35	1.7	0.23	0.859	J
o-Xylene	ND	0.86	0.48	0.859	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.859	
Tert-Butyl Alcohol (TBA)	ND	17	4.4	0.859	
Diisopropyl Ether (DIPE)	ND	0.86	0.41	0.859	
Ethyl-t-Butyl Ether (ETBE)	ND	0.86	0.43	0.859	
Tert-Amyl-Methyl Ether (TAME)	ND	0.86	0.30	0.859	
Ethanol	ND	430	72	0.859	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 12 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	105	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-08-10	**13-06-1375-7-C**	**06/20/13 11:25**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 15:29**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	24	48	6.0	0.96	J
Benzene	1.1	0.96	0.12	0.96	
Bromobenzene	ND	0.96	0.20	0.96	
Bromochloromethane	ND	1.9	0.66	0.96	
Bromodichloromethane	ND	0.96	0.22	0.96	
Bromoform	ND	4.8	0.76	0.96	
Bromomethane	ND	19	9.0	0.96	
2-Butanone	9.8	19	3.6	0.96	J
n-Butylbenzene	ND	0.96	0.15	0.96	
sec-Butylbenzene	ND	0.96	0.55	0.96	
tert-Butylbenzene	ND	0.96	0.14	0.96	
Carbon Disulfide	ND	9.6	0.29	0.96	
Carbon Tetrachloride	ND	0.96	0.27	0.96	
Chlorobenzene	ND	0.96	0.22	0.96	
Chloroethane	ND	1.9	1.8	0.96	
Chloroform	ND	0.96	0.23	0.96	
Chloromethane	ND	19	0.66	0.96	
2-Chlorotoluene	ND	0.96	0.22	0.96	
4-Chlorotoluene	ND	0.96	0.20	0.96	
Dibromochloromethane	ND	1.9	0.55	0.96	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.96	
1,2-Dibromoethane	ND	0.96	0.25	0.96	
Dibromomethane	ND	0.96	0.74	0.96	
1,2-Dichlorobenzene	ND	0.96	0.22	0.96	
1,3-Dichlorobenzene	ND	0.96	0.17	0.96	
1,4-Dichlorobenzene	ND	0.96	0.21	0.96	
Dichlorodifluoromethane	ND	1.9	0.43	0.96	
1,1-Dichloroethane	ND	0.96	0.96	0.96	
1,2-Dichloroethane	ND	0.96	0.30	0.96	
1,1-Dichloroethene	ND	0.96	0.33	0.96	
c-1,2-Dichloroethene	ND	0.96	0.27	0.96	
t-1,2-Dichloroethene	ND	0.96	0.49	0.96	
1,2-Dichloropropane	ND	0.96	0.42	0.96	
1,3-Dichloropropane	ND	0.96	0.24	0.96	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.32	0.96	
1,1-Dichloropropene	ND	1.9	0.32	0.96	
c-1,3-Dichloropropene	ND	0.96	0.24	0.96	
t-1,3-Dichloropropene	ND	1.9	0.58	0.96	
Ethylbenzene	0.98	0.96	0.15	0.96	
2-Hexanone	ND	19	1.7	0.96	
Isopropylbenzene	ND	0.96	0.52	0.96	
p-Isopropyltoluene	ND	0.96	0.60	0.96	
Methylene Chloride	ND	9.6	1.3	0.96	
4-Methyl-2-Pentanone	ND	19	4.1	0.96	
Naphthalene	ND	9.6	0.78	0.96	
n-Propylbenzene	ND	1.9	0.48	0.96	
Styrene	ND	0.96	0.58	0.96	
1,1,1,2-Tetrachloroethane	ND	0.96	0.23	0.96	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.96	
Tetrachloroethene	1.9	0.96	0.20	0.96	
Toluene	1.5	0.96	0.49	0.96	
1,2,3-Trichlorobenzene	ND	1.9	0.88	0.96	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.96	
1,1,1-Trichloroethane	ND	0.96	0.22	0.96	
1,1,2-Trichloroethane	ND	0.96	0.91	0.96	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.6	0.34	0.96	
Trichloroethene	0.71	1.9	0.29	0.96	J
Trichlorofluoromethane	ND	9.6	0.36	0.96	
1,2,3-Trichloropropane	ND	1.9	0.66	0.96	
1,2,4-Trimethylbenzene	ND	1.9	0.56	0.96	
1,3,5-Trimethylbenzene	ND	1.9	0.53	0.96	
Vinyl Acetate	ND	9.6	4.6	0.96	
Vinyl Chloride	ND	0.96	0.48	0.96	
p/m-Xylene	0.41	1.9	0.26	0.96	J
o-Xylene	ND	0.96	0.53	0.96	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.96	
Tert-Butyl Alcohol (TBA)	ND	19	5.0	0.96	
Diisopropyl Ether (DIPE)	ND	0.96	0.46	0.96	
Ethyl-t-Butyl Ether (ETBE)	ND	0.96	0.49	0.96	
Tert-Amyl-Methyl Ether (TAME)	ND	0.96	0.34	0.96	
Ethanol	ND	480	80	0.96	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 15 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	111	71-155	
Toluene-d8	104	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-05	**13-06-1375-10-C**	**06/20/13 14:20**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 15:57**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	30	44	5.4	0.873	J
Benzene	0.91	0.87	0.11	0.873	
Bromobenzene	ND	0.87	0.18	0.873	
Bromochloromethane	ND	1.7	0.60	0.873	
Bromodichloromethane	ND	0.87	0.20	0.873	
Bromoform	ND	4.4	0.69	0.873	
Bromomethane	ND	17	8.2	0.873	
2-Butanone	3.6	17	3.3	0.873	J
n-Butylbenzene	ND	0.87	0.14	0.873	
sec-Butylbenzene	ND	0.87	0.50	0.873	
tert-Butylbenzene	ND	0.87	0.13	0.873	
Carbon Disulfide	0.35	8.7	0.27	0.873	J
Carbon Tetrachloride	ND	0.87	0.25	0.873	
Chlorobenzene	ND	0.87	0.20	0.873	
Chloroethane	ND	1.7	1.6	0.873	
Chloroform	ND	0.87	0.21	0.873	
Chloromethane	ND	17	0.60	0.873	
2-Chlorotoluene	ND	0.87	0.20	0.873	
4-Chlorotoluene	ND	0.87	0.19	0.873	
Dibromochloromethane	ND	1.7	0.50	0.873	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.873	
1,2-Dibromoethane	ND	0.87	0.22	0.873	
Dibromomethane	ND	0.87	0.68	0.873	
1,2-Dichlorobenzene	ND	0.87	0.20	0.873	
1,3-Dichlorobenzene	ND	0.87	0.15	0.873	
1,4-Dichlorobenzene	ND	0.87	0.19	0.873	
Dichlorodifluoromethane	ND	1.7	0.39	0.873	
1,1-Dichloroethane	ND	0.87	0.87	0.873	
1,2-Dichloroethane	ND	0.87	0.27	0.873	
1,1-Dichloroethene	ND	0.87	0.30	0.873	
c-1,2-Dichloroethene	ND	0.87	0.24	0.873	
t-1,2-Dichloroethene	ND	0.87	0.44	0.873	
1,2-Dichloropropane	ND	0.87	0.38	0.873	
1,3-Dichloropropane	ND	0.87	0.22	0.873	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.873	
1,1-Dichloropropene	ND	1.7	0.29	0.873	
c-1,3-Dichloropropene	ND	0.87	0.22	0.873	
t-1,3-Dichloropropene	ND	1.7	0.53	0.873	
Ethylbenzene	0.33	0.87	0.13	0.873	J
2-Hexanone	ND	17	1.5	0.873	
Isopropylbenzene	ND	0.87	0.48	0.873	
p-Isopropyltoluene	ND	0.87	0.55	0.873	
Methylene Chloride	ND	8.7	1.2	0.873	
4-Methyl-2-Pentanone	ND	17	3.8	0.873	
Naphthalene	ND	8.7	0.71	0.873	
n-Propylbenzene	ND	1.7	0.44	0.873	
Styrene	ND	0.87	0.53	0.873	
1,1,1,2-Tetrachloroethane	ND	0.87	0.21	0.873	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	0.873	
Tetrachloroethene	2.9	0.87	0.18	0.873	
Toluene	0.85	0.87	0.45	0.873	J
1,2,3-Trichlorobenzene	ND	1.7	0.80	0.873	
1,2,4-Trichlorobenzene	ND	1.7	0.27	0.873	
1,1,1-Trichloroethane	ND	0.87	0.20	0.873	
1,1,2-Trichloroethane	ND	0.87	0.83	0.873	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.7	0.31	0.873	
Trichloroethene	ND	1.7	0.26	0.873	
Trichlorofluoromethane	ND	8.7	0.33	0.873	
1,2,3-Trichloropropane	ND	1.7	0.60	0.873	
1,2,4-Trimethylbenzene	ND	1.7	0.51	0.873	
1,3,5-Trimethylbenzene	ND	1.7	0.48	0.873	
Vinyl Acetate	ND	8.7	4.1	0.873	
Vinyl Chloride	ND	0.87	0.44	0.873	
p/m-Xylene	ND	1.7	0.23	0.873	
o-Xylene	ND	0.87	0.49	0.873	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.26	0.873	
Tert-Butyl Alcohol (TBA)	ND	17	4.5	0.873	
Diisopropyl Ether (DIPE)	ND	0.87	0.42	0.873	
Ethyl-t-Butyl Ether (ETBE)	ND	0.87	0.44	0.873	
Tert-Amyl-Methyl Ether (TAME)	ND	0.87	0.31	0.873	
Ethanol	ND	440	73	0.873	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 18 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	102	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-11	**13-06-1375-11-C**	**06/20/13 14:30**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 16:24**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	22	44	5.5	0.874	J
Benzene	1.2	0.87	0.11	0.874	
Bromobenzene	ND	0.87	0.18	0.874	
Bromochloromethane	ND	1.7	0.60	0.874	
Bromodichloromethane	ND	0.87	0.20	0.874	
Bromoform	ND	4.4	0.69	0.874	
Bromomethane	ND	17	8.2	0.874	
2-Butanone	4.0	17	3.3	0.874	J
n-Butylbenzene	ND	0.87	0.14	0.874	
sec-Butylbenzene	ND	0.87	0.51	0.874	
tert-Butylbenzene	ND	0.87	0.13	0.874	
Carbon Disulfide	ND	8.7	0.27	0.874	
Carbon Tetrachloride	ND	0.87	0.25	0.874	
Chlorobenzene	ND	0.87	0.20	0.874	
Chloroethane	ND	1.7	1.6	0.874	
Chloroform	ND	0.87	0.21	0.874	
Chloromethane	ND	17	0.60	0.874	
2-Chlorotoluene	ND	0.87	0.20	0.874	
4-Chlorotoluene	ND	0.87	0.19	0.874	
Dibromochloromethane	ND	1.7	0.50	0.874	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.874	
1,2-Dibromoethane	ND	0.87	0.22	0.874	
Dibromomethane	ND	0.87	0.68	0.874	
1,2-Dichlorobenzene	ND	0.87	0.20	0.874	
1,3-Dichlorobenzene	ND	0.87	0.15	0.874	
1,4-Dichlorobenzene	ND	0.87	0.19	0.874	
Dichlorodifluoromethane	ND	1.7	0.39	0.874	
1,1-Dichloroethane	ND	0.87	0.87	0.874	
1,2-Dichloroethane	ND	0.87	0.27	0.874	
1,1-Dichloroethene	ND	0.87	0.30	0.874	
c-1,2-Dichloroethene	ND	0.87	0.24	0.874	
t-1,2-Dichloroethene	ND	0.87	0.44	0.874	
1,2-Dichloropropane	ND	0.87	0.38	0.874	
1,3-Dichloropropane	ND	0.87	0.22	0.874	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.874	
1,1-Dichloropropene	ND	1.7	0.29	0.874	
c-1,3-Dichloropropene	ND	0.87	0.22	0.874	
t-1,3-Dichloropropene	ND	1.7	0.53	0.874	
Ethylbenzene	0.56	0.87	0.13	0.874	J
2-Hexanone	ND	17	1.5	0.874	
Isopropylbenzene	ND	0.87	0.48	0.874	
p-Isopropyltoluene	ND	0.87	0.55	0.874	
Methylene Chloride	ND	8.7	1.2	0.874	
4-Methyl-2-Pentanone	ND	17	3.8	0.874	
Naphthalene	ND	8.7	0.71	0.874	
n-Propylbenzene	ND	1.7	0.44	0.874	
Styrene	ND	0.87	0.53	0.874	
1,1,1,2-Tetrachloroethane	ND	0.87	0.21	0.874	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	0.874	
Tetrachloroethene	1.2	0.87	0.18	0.874	
Toluene	1.3	0.87	0.45	0.874	
1,2,3-Trichlorobenzene	ND	1.7	0.80	0.874	
1,2,4-Trichlorobenzene	ND	1.7	0.27	0.874	
1,1,1-Trichloroethane	ND	0.87	0.20	0.874	
1,1,2-Trichloroethane	ND	0.87	0.83	0.874	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.7	0.31	0.874	
Trichloroethene	ND	1.7	0.26	0.874	
Trichlorofluoromethane	ND	8.7	0.33	0.874	
1,2,3-Trichloropropane	ND	1.7	0.60	0.874	
1,2,4-Trimethylbenzene	ND	1.7	0.51	0.874	
1,3,5-Trimethylbenzene	ND	1.7	0.48	0.874	
Vinyl Acetate	ND	8.7	4.1	0.874	
Vinyl Chloride	ND	0.87	0.44	0.874	
p/m-Xylene	0.37	1.7	0.23	0.874	J
o-Xylene	ND	0.87	0.49	0.874	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.26	0.874	
Tert-Butyl Alcohol (TBA)	ND	17	4.5	0.874	
Diisopropyl Ether (DIPE)	ND	0.87	0.42	0.874	
Ethyl-t-Butyl Ether (ETBE)	ND	0.87	0.44	0.874	
Tert-Amyl-Methyl Ether (TAME)	ND	0.87	0.31	0.874	
Ethanol	ND	440	73	0.874	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 21 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	102	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-21	**13-06-1375-12-C**	**06/20/13 14:55**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 16:51**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	19	46	5.8	0.928	J
Benzene	2.6	0.93	0.12	0.928	
Bromobenzene	ND	0.93	0.19	0.928	
Bromochloromethane	ND	1.9	0.64	0.928	
Bromodichloromethane	ND	0.93	0.22	0.928	
Bromoform	ND	4.6	0.74	0.928	
Bromomethane	ND	19	8.7	0.928	
2-Butanone	3.7	19	3.5	0.928	J
n-Butylbenzene	ND	0.93	0.15	0.928	
sec-Butylbenzene	ND	0.93	0.54	0.928	
tert-Butylbenzene	ND	0.93	0.14	0.928	
Carbon Disulfide	ND	9.3	0.28	0.928	
Carbon Tetrachloride	ND	0.93	0.26	0.928	
Chlorobenzene	ND	0.93	0.21	0.928	
Chloroethane	ND	1.9	1.7	0.928	
Chloroform	ND	0.93	0.22	0.928	
Chloromethane	ND	19	0.64	0.928	
2-Chlorotoluene	ND	0.93	0.21	0.928	
4-Chlorotoluene	ND	0.93	0.20	0.928	
Dibromochloromethane	ND	1.9	0.53	0.928	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.928	
1,2-Dibromoethane	ND	0.93	0.24	0.928	
Dibromomethane	ND	0.93	0.72	0.928	
1,2-Dichlorobenzene	ND	0.93	0.21	0.928	
1,3-Dichlorobenzene	ND	0.93	0.16	0.928	
1,4-Dichlorobenzene	ND	0.93	0.21	0.928	
Dichlorodifluoromethane	ND	1.9	0.41	0.928	
1,1-Dichloroethane	ND	0.93	0.93	0.928	
1,2-Dichloroethane	ND	0.93	0.29	0.928	
1,1-Dichloroethene	ND	0.93	0.32	0.928	
c-1,2-Dichloroethene	ND	0.93	0.26	0.928	
t-1,2-Dichloroethene	ND	0.93	0.47	0.928	
1,2-Dichloropropane	ND	0.93	0.41	0.928	
1,3-Dichloropropane	ND	0.93	0.23	0.928	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.928	
1,1-Dichloropropene	ND	1.9	0.30	0.928	
c-1,3-Dichloropropene	ND	0.93	0.24	0.928	
t-1,3-Dichloropropene	ND	1.9	0.56	0.928	
Ethylbenzene	1.1	0.93	0.14	0.928	
2-Hexanone	ND	19	1.6	0.928	
Isopropylbenzene	ND	0.93	0.51	0.928	
p-Isopropyltoluene	ND	0.93	0.58	0.928	
Methylene Chloride	ND	9.3	1.2	0.928	
4-Methyl-2-Pentanone	ND	19	4.0	0.928	
Naphthalene	ND	9.3	0.76	0.928	
n-Propylbenzene	ND	1.9	0.47	0.928	
Styrene	ND	0.93	0.56	0.928	
1,1,1,2-Tetrachloroethane	ND	0.93	0.22	0.928	
1,1,2,2-Tetrachloroethane	ND	1.9	0.32	0.928	
Tetrachloroethene	2.2	0.93	0.19	0.928	
Toluene	2.5	0.93	0.48	0.928	
1,2,3-Trichlorobenzene	ND	1.9	0.85	0.928	
1,2,4-Trichlorobenzene	ND	1.9	0.29	0.928	
1,1,1-Trichloroethane	ND	0.93	0.21	0.928	
1,1,2-Trichloroethane	ND	0.93	0.88	0.928	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.3	0.33	0.928	
Trichloroethene	ND	1.9	0.28	0.928	
Trichlorofluoromethane	ND	9.3	0.35	0.928	
1,2,3-Trichloropropane	ND	1.9	0.64	0.928	
1,2,4-Trimethylbenzene	ND	1.9	0.54	0.928	
1,3,5-Trimethylbenzene	ND	1.9	0.51	0.928	
Vinyl Acetate	ND	9.3	4.4	0.928	
Vinyl Chloride	ND	0.93	0.47	0.928	
p/m-Xylene	0.63	1.9	0.25	0.928	J
o-Xylene	ND	0.93	0.52	0.928	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.27	0.928	
Tert-Butyl Alcohol (TBA)	ND	19	4.8	0.928	
Diisopropyl Ether (DIPE)	ND	0.93	0.45	0.928	
Ethyl-t-Butyl Ether (ETBE)	ND	0.93	0.47	0.928	
Tert-Amyl-Methyl Ether (TAME)	ND	0.93	0.33	0.928	
Ethanol	ND	460	78	0.928	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received:	06/20/13
Work Order:	13-06-1375
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	103	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-30	**13-06-1375-13-C**	**06/20/13 15:05**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 17:19**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	11	40	5.0	0.794	J
Benzene	2.0	0.79	0.10	0.794	
Bromobenzene	ND	0.79	0.17	0.794	
Bromochloromethane	ND	1.6	0.55	0.794	
Bromodichloromethane	ND	0.79	0.18	0.794	
Bromoform	ND	4.0	0.63	0.794	
Bromomethane	ND	16	7.5	0.794	
2-Butanone	ND	16	3.0	0.794	
n-Butylbenzene	ND	0.79	0.12	0.794	
sec-Butylbenzene	ND	0.79	0.46	0.794	
tert-Butylbenzene	ND	0.79	0.12	0.794	
Carbon Disulfide	0.29	7.9	0.24	0.794	J
Carbon Tetrachloride	ND	0.79	0.22	0.794	
Chlorobenzene	ND	0.79	0.18	0.794	
Chloroethane	ND	1.6	1.5	0.794	
Chloroform	ND	0.79	0.19	0.794	
Chloromethane	ND	16	0.55	0.794	
2-Chlorotoluene	ND	0.79	0.18	0.794	
4-Chlorotoluene	ND	0.79	0.17	0.794	
Dibromochloromethane	ND	1.6	0.45	0.794	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.794	
1,2-Dibromoethane	ND	0.79	0.20	0.794	
Dibromomethane	ND	0.79	0.62	0.794	
1,2-Dichlorobenzene	ND	0.79	0.18	0.794	
1,3-Dichlorobenzene	ND	0.79	0.14	0.794	
1,4-Dichlorobenzene	ND	0.79	0.18	0.794	
Dichlorodifluoromethane	ND	1.6	0.35	0.794	
1,1-Dichloroethane	ND	0.79	0.79	0.794	
1,2-Dichloroethane	ND	0.79	0.25	0.794	
1,1-Dichloroethene	ND	0.79	0.27	0.794	
c-1,2-Dichloroethene	ND	0.79	0.22	0.794	
t-1,2-Dichloroethene	ND	0.79	0.40	0.794	
1,2-Dichloropropane	ND	0.79	0.35	0.794	
1,3-Dichloropropane	ND	0.79	0.20	0.794	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.794	
1,1-Dichloropropene	ND	1.6	0.26	0.794	
c-1,3-Dichloropropene	ND	0.79	0.20	0.794	
t-1,3-Dichloropropene	ND	1.6	0.48	0.794	
Ethylbenzene	1.1	0.79	0.12	0.794	
2-Hexanone	ND	16	1.4	0.794	
Isopropylbenzene	ND	0.79	0.43	0.794	
p-Isopropyltoluene	ND	0.79	0.50	0.794	
Methylene Chloride	ND	7.9	1.1	0.794	
4-Methyl-2-Pentanone	ND	16	3.4	0.794	
Naphthalene	ND	7.9	0.65	0.794	
n-Propylbenzene	ND	1.6	0.40	0.794	
Styrene	ND	0.79	0.48	0.794	
1,1,1,2-Tetrachloroethane	ND	0.79	0.19	0.794	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.794	
Tetrachloroethene	1.6	0.79	0.17	0.794	
Toluene	2.2	0.79	0.41	0.794	
1,2,3-Trichlorobenzene	ND	1.6	0.73	0.794	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.794	
1,1,1-Trichloroethane	ND	0.79	0.18	0.794	
1,1,2-Trichloroethane	ND	0.79	0.75	0.794	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	0.28	0.794	
Trichloroethene	ND	1.6	0.24	0.794	
Trichlorofluoromethane	ND	7.9	0.30	0.794	
1,2,3-Trichloropropane	ND	1.6	0.54	0.794	
1,2,4-Trimethylbenzene	ND	1.6	0.47	0.794	
1,3,5-Trimethylbenzene	ND	1.6	0.44	0.794	
Vinyl Acetate	ND	7.9	3.8	0.794	
Vinyl Chloride	ND	0.79	0.40	0.794	
p/m-Xylene	0.53	1.6	0.21	0.794	J
o-Xylene	ND	0.79	0.44	0.794	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.794	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.794	
Diisopropyl Ether (DIPE)	ND	0.79	0.38	0.794	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	0.40	0.794	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	0.28	0.794	
Ethanol	ND	400	66	0.794	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 27 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	104	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-07-40	**13-06-1375-14-C**	**06/20/13 15:10**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 17:46**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	9.0	42	5.2	0.831	J
Benzene	0.12	0.83	0.11	0.831	J
Bromobenzene	ND	0.83	0.17	0.831	
Bromochloromethane	ND	1.7	0.57	0.831	
Bromodichloromethane	ND	0.83	0.19	0.831	
Bromoform	ND	4.2	0.66	0.831	
Bromomethane	ND	17	7.8	0.831	
2-Butanone	ND	17	3.1	0.831	
n-Butylbenzene	ND	0.83	0.13	0.831	
sec-Butylbenzene	ND	0.83	0.48	0.831	
tert-Butylbenzene	ND	0.83	0.13	0.831	
Carbon Disulfide	ND	8.3	0.25	0.831	
Carbon Tetrachloride	ND	0.83	0.23	0.831	
Chlorobenzene	ND	0.83	0.19	0.831	
Chloroethane	ND	1.7	1.6	0.831	
Chloroform	ND	0.83	0.20	0.831	
Chloromethane	ND	17	0.57	0.831	
2-Chlorotoluene	ND	0.83	0.19	0.831	
4-Chlorotoluene	ND	0.83	0.18	0.831	
Dibromochloromethane	ND	1.7	0.47	0.831	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.4	0.831	
1,2-Dibromoethane	ND	0.83	0.21	0.831	
Dibromomethane	ND	0.83	0.64	0.831	
1,2-Dichlorobenzene	ND	0.83	0.19	0.831	
1,3-Dichlorobenzene	ND	0.83	0.15	0.831	
1,4-Dichlorobenzene	ND	0.83	0.18	0.831	
Dichlorodifluoromethane	ND	1.7	0.37	0.831	
1,1-Dichloroethane	ND	0.83	0.83	0.831	
1,2-Dichloroethane	ND	0.83	0.26	0.831	
1,1-Dichloroethene	ND	0.83	0.29	0.831	
c-1,2-Dichloroethene	ND	0.83	0.23	0.831	
t-1,2-Dichloroethene	ND	0.83	0.42	0.831	
1,2-Dichloropropane	ND	0.83	0.36	0.831	
1,3-Dichloropropane	ND	0.83	0.21	0.831	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.2	0.27	0.831	
1,1-Dichloropropene	ND	1.7	0.27	0.831	
c-1,3-Dichloropropene	ND	0.83	0.21	0.831	
t-1,3-Dichloropropene	ND	1.7	0.50	0.831	
Ethylbenzene	ND	0.83	0.13	0.831	
2-Hexanone	ND	17	1.5	0.831	
Isopropylbenzene	ND	0.83	0.45	0.831	
p-Isopropyltoluene	ND	0.83	0.52	0.831	
Methylene Chloride	ND	8.3	1.1	0.831	
4-Methyl-2-Pentanone	ND	17	3.6	0.831	
Naphthalene	ND	8.3	0.68	0.831	
n-Propylbenzene	ND	1.7	0.42	0.831	
Styrene	ND	0.83	0.50	0.831	
1,1,1,2-Tetrachloroethane	ND	0.83	0.20	0.831	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	0.831	
Tetrachloroethene	0.74	0.83	0.17	0.831	J
Toluene	ND	0.83	0.43	0.831	
1,2,3-Trichlorobenzene	ND	1.7	0.76	0.831	
1,2,4-Trichlorobenzene	ND	1.7	0.26	0.831	
1,1,1-Trichloroethane	ND	0.83	0.19	0.831	
1,1,2-Trichloroethane	ND	0.83	0.79	0.831	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.3	0.29	0.831	
Trichloroethene	ND	1.7	0.25	0.831	
Trichlorofluoromethane	ND	8.3	0.31	0.831	
1,2,3-Trichloropropane	ND	1.7	0.57	0.831	
1,2,4-Trimethylbenzene	ND	1.7	0.49	0.831	
1,3,5-Trimethylbenzene	ND	1.7	0.46	0.831	
Vinyl Acetate	ND	8.3	3.9	0.831	
Vinyl Chloride	ND	0.83	0.42	0.831	
p/m-Xylene	ND	1.7	0.22	0.831	
o-Xylene	ND	0.83	0.46	0.831	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.831	
Tert-Butyl Alcohol (TBA)	ND	17	4.3	0.831	
Diisopropyl Ether (DIPE)	ND	0.83	0.40	0.831	
Ethyl-t-Butyl Ether (ETBE)	ND	0.83	0.42	0.831	
Tert-Amyl-Methyl Ether (TAME)	ND	0.83	0.29	0.831	
Ethanol	ND	420	69	0.831	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 30 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	113	71-155	
Toluene-d8	103	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-080	**13-06-1375-15-C**	**06/20/13 10:50**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 18:13**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	38	4.7	0.753	J
Benzene	1.6	0.75	0.098	0.753	
Bromobenzene	ND	0.75	0.16	0.753	
Bromochloromethane	ND	1.5	0.52	0.753	
Bromodichloromethane	ND	0.75	0.18	0.753	
Bromoform	ND	3.8	0.60	0.753	
Bromomethane	ND	15	7.1	0.753	
2-Butanone	3.0	15	2.8	0.753	J
n-Butylbenzene	ND	0.75	0.12	0.753	
sec-Butylbenzene	ND	0.75	0.44	0.753	
tert-Butylbenzene	ND	0.75	0.11	0.753	
Carbon Disulfide	ND	7.5	0.23	0.753	
Carbon Tetrachloride	ND	0.75	0.21	0.753	
Chlorobenzene	ND	0.75	0.17	0.753	
Chloroethane	ND	1.5	1.4	0.753	
Chloroform	ND	0.75	0.18	0.753	
Chloromethane	ND	15	0.52	0.753	
2-Chlorotoluene	ND	0.75	0.17	0.753	
4-Chlorotoluene	ND	0.75	0.16	0.753	
Dibromochloromethane	ND	1.5	0.43	0.753	
1,2-Dibromo-3-Chloropropane	ND	3.8	1.3	0.753	
1,2-Dibromoethane	ND	0.75	0.19	0.753	
Dibromomethane	ND	0.75	0.58	0.753	
1,2-Dichlorobenzene	ND	0.75	0.17	0.753	
1,3-Dichlorobenzene	ND	0.75	0.13	0.753	
1,4-Dichlorobenzene	ND	0.75	0.17	0.753	
Dichlorodifluoromethane	ND	1.5	0.33	0.753	
1,1-Dichloroethane	ND	0.75	0.75	0.753	
1,2-Dichloroethane	ND	0.75	0.24	0.753	
1,1-Dichloroethene	ND	0.75	0.26	0.753	
c-1,2-Dichloroethene	ND	0.75	0.21	0.753	
t-1,2-Dichloroethene	ND	0.75	0.38	0.753	
1,2-Dichloropropane	ND	0.75	0.33	0.753	
1,3-Dichloropropane	ND	0.75	0.19	0.753	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	3.8	0.25	0.753	
1,1-Dichloropropene	ND	1.5	0.25	0.753	
c-1,3-Dichloropropene	ND	0.75	0.19	0.753	
t-1,3-Dichloropropene	ND	1.5	0.46	0.753	
Ethylbenzene	0.22	0.75	0.11	0.753	J
2-Hexanone	ND	15	1.3	0.753	
Isopropylbenzene	ND	0.75	0.41	0.753	
p-Isopropyltoluene	ND	0.75	0.47	0.753	
Methylene Chloride	ND	7.5	1.0	0.753	
4-Methyl-2-Pentanone	ND	15	3.3	0.753	
Naphthalene	ND	7.5	0.61	0.753	
n-Propylbenzene	ND	1.5	0.38	0.753	
Styrene	ND	0.75	0.46	0.753	
1,1,1,2-Tetrachloroethane	ND	0.75	0.18	0.753	
1,1,2,2-Tetrachloroethane	ND	1.5	0.26	0.753	
Tetrachloroethene	0.40	0.75	0.16	0.753	J
Toluene	0.95	0.75	0.39	0.753	
1,2,3-Trichlorobenzene	ND	1.5	0.69	0.753	
1,2,4-Trichlorobenzene	ND	1.5	0.23	0.753	
1,1,1-Trichloroethane	ND	0.75	0.17	0.753	
1,1,2-Trichloroethane	ND	0.75	0.72	0.753	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.5	0.26	0.753	
Trichloroethene	3.9	1.5	0.23	0.753	
Trichlorofluoromethane	ND	7.5	0.28	0.753	
1,2,3-Trichloropropane	ND	1.5	0.52	0.753	
1,2,4-Trimethylbenzene	ND	1.5	0.44	0.753	
1,3,5-Trimethylbenzene	ND	1.5	0.41	0.753	
Vinyl Acetate	ND	7.5	3.6	0.753	
Vinyl Chloride	ND	0.75	0.38	0.753	
p/m-Xylene	0.24	1.5	0.20	0.753	J
o-Xylene	ND	0.75	0.42	0.753	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	0.22	0.753	
Tert-Butyl Alcohol (TBA)	ND	15	3.9	0.753	
Diisopropyl Ether (DIPE)	ND	0.75	0.36	0.753	
Ethyl-t-Butyl Ether (ETBE)	ND	0.75	0.38	0.753	
Tert-Amyl-Methyl Ether (TAME)	ND	0.75	0.27	0.753	
Ethanol	ND	380	63	0.753	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 33 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	103	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-100	**13-06-1375-16-C**	**06/20/13 11:30**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 18:41**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	27	42	5.2	0.838	J
Benzene	0.54	0.84	0.11	0.838	J
Bromobenzene	ND	0.84	0.18	0.838	
Bromochloromethane	ND	1.7	0.58	0.838	
Bromodichloromethane	ND	0.84	0.20	0.838	
Bromoform	ND	4.2	0.67	0.838	
Bromomethane	ND	17	7.9	0.838	
2-Butanone	4.7	17	3.2	0.838	J
n-Butylbenzene	ND	0.84	0.13	0.838	
sec-Butylbenzene	ND	0.84	0.48	0.838	
tert-Butylbenzene	ND	0.84	0.13	0.838	
Carbon Disulfide	ND	8.4	0.26	0.838	
Carbon Tetrachloride	ND	0.84	0.24	0.838	
Chlorobenzene	ND	0.84	0.19	0.838	
Chloroethane	ND	1.7	1.6	0.838	
Chloroform	ND	0.84	0.20	0.838	
Chloromethane	ND	17	0.58	0.838	
2-Chlorotoluene	ND	0.84	0.19	0.838	
4-Chlorotoluene	ND	0.84	0.18	0.838	
Dibromochloromethane	ND	1.7	0.48	0.838	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.5	0.838	
1,2-Dibromoethane	ND	0.84	0.21	0.838	
Dibromomethane	ND	0.84	0.65	0.838	
1,2-Dichlorobenzene	ND	0.84	0.19	0.838	
1,3-Dichlorobenzene	ND	0.84	0.15	0.838	
1,4-Dichlorobenzene	ND	0.84	0.19	0.838	
Dichlorodifluoromethane	ND	1.7	0.37	0.838	
1,1-Dichloroethane	ND	0.84	0.84	0.838	
1,2-Dichloroethane	ND	0.84	0.26	0.838	
1,1-Dichloroethene	ND	0.84	0.29	0.838	
c-1,2-Dichloroethene	ND	0.84	0.23	0.838	
t-1,2-Dichloroethene	ND	0.84	0.42	0.838	
1,2-Dichloropropane	ND	0.84	0.37	0.838	
1,3-Dichloropropane	ND	0.84	0.21	0.838	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.2	0.28	0.838	
1,1-Dichloropropene	ND	1.7	0.28	0.838	
c-1,3-Dichloropropene	ND	0.84	0.21	0.838	
t-1,3-Dichloropropene	ND	1.7	0.51	0.838	
Ethylbenzene	0.13	0.84	0.13	0.838	J
2-Hexanone	ND	17	1.5	0.838	
Isopropylbenzene	ND	0.84	0.46	0.838	
p-Isopropyltoluene	ND	0.84	0.53	0.838	
Methylene Chloride	ND	8.4	1.1	0.838	
4-Methyl-2-Pentanone	ND	17	3.6	0.838	
Naphthalene	ND	8.4	0.68	0.838	
n-Propylbenzene	ND	1.7	0.42	0.838	
Styrene	ND	0.84	0.51	0.838	
1,1,1,2-Tetrachloroethane	ND	0.84	0.20	0.838	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	0.838	
Tetrachloroethene	ND	0.84	0.18	0.838	
Toluene	0.53	0.84	0.43	0.838	J
1,2,3-Trichlorobenzene	ND	1.7	0.77	0.838	
1,2,4-Trichlorobenzene	ND	1.7	0.26	0.838	
1,1,1-Trichloroethane	ND	0.84	0.19	0.838	
1,1,2-Trichloroethane	ND	0.84	0.80	0.838	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	0.29	0.838	
Trichloroethene	0.46	1.7	0.25	0.838	J
Trichlorofluoromethane	ND	8.4	0.31	0.838	
1,2,3-Trichloropropane	ND	1.7	0.57	0.838	
1,2,4-Trimethylbenzene	ND	1.7	0.49	0.838	
1,3,5-Trimethylbenzene	ND	1.7	0.46	0.838	
Vinyl Acetate	ND	8.4	4.0	0.838	
Vinyl Chloride	ND	0.84	0.42	0.838	
p/m-Xylene	0.24	1.7	0.22	0.838	J
o-Xylene	ND	0.84	0.47	0.838	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.838	
Tert-Butyl Alcohol (TBA)	ND	17	4.3	0.838	
Diisopropyl Ether (DIPE)	ND	0.84	0.40	0.838	
Ethyl-t-Butyl Ether (ETBE)	ND	0.84	0.42	0.838	
Tert-Amyl-Methyl Ether (TAME)	ND	0.84	0.30	0.838	
Ethanol	ND	420	70	0.838	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 36 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	104	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-120	**13-06-1375-17-C**	**06/20/13 12:56**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 19:08**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	21	39	4.9	0.778	J
Benzene	0.37	0.78	0.10	0.778	J
Bromobenzene	ND	0.78	0.16	0.778	
Bromochloromethane	ND	1.6	0.54	0.778	
Bromodichloromethane	ND	0.78	0.18	0.778	
Bromoform	ND	3.9	0.62	0.778	
Bromomethane	ND	16	7.3	0.778	
2-Butanone	3.1	16	2.9	0.778	J
n-Butylbenzene	ND	0.78	0.12	0.778	
sec-Butylbenzene	ND	0.78	0.45	0.778	
tert-Butylbenzene	ND	0.78	0.12	0.778	
Carbon Disulfide	ND	7.8	0.24	0.778	
Carbon Tetrachloride	ND	0.78	0.22	0.778	
Chlorobenzene	ND	0.78	0.17	0.778	
Chloroethane	ND	1.6	1.5	0.778	
Chloroform	0.27	0.78	0.19	0.778	J
Chloromethane	ND	16	0.54	0.778	
2-Chlorotoluene	ND	0.78	0.18	0.778	
4-Chlorotoluene	ND	0.78	0.17	0.778	
Dibromochloromethane	ND	1.6	0.44	0.778	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.4	0.778	
1,2-Dibromoethane	ND	0.78	0.20	0.778	
Dibromomethane	ND	0.78	0.60	0.778	
1,2-Dichlorobenzene	ND	0.78	0.18	0.778	
1,3-Dichlorobenzene	ND	0.78	0.14	0.778	
1,4-Dichlorobenzene	ND	0.78	0.17	0.778	
Dichlorodifluoromethane	ND	1.6	0.34	0.778	
1,1-Dichloroethane	ND	0.78	0.78	0.778	
1,2-Dichloroethane	ND	0.78	0.24	0.778	
1,1-Dichloroethene	ND	0.78	0.27	0.778	
c-1,2-Dichloroethene	ND	0.78	0.22	0.778	
t-1,2-Dichloroethene	ND	0.78	0.39	0.778	
1,2-Dichloropropane	ND	0.78	0.34	0.778	
1,3-Dichloropropane	ND	0.78	0.20	0.778	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	3.9	0.26	0.778	
1,1-Dichloropropene	ND	1.6	0.26	0.778	
c-1,3-Dichloropropene	ND	0.78	0.20	0.778	
t-1,3-Dichloropropene	ND	1.6	0.47	0.778	
Ethylbenzene	0.78	0.78	0.12	0.778	
2-Hexanone	ND	16	1.4	0.778	
Isopropylbenzene	ND	0.78	0.42	0.778	
p-Isopropyltoluene	ND	0.78	0.49	0.778	
Methylene Chloride	ND	7.8	1.0	0.778	
4-Methyl-2-Pentanone	ND	16	3.4	0.778	
Naphthalene	ND	7.8	0.63	0.778	
n-Propylbenzene	ND	1.6	0.39	0.778	
Styrene	ND	0.78	0.47	0.778	
1,1,1,2-Tetrachloroethane	ND	0.78	0.19	0.778	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.778	
Tetrachloroethene	ND	0.78	0.16	0.778	
Toluene	0.92	0.78	0.40	0.778	
1,2,3-Trichlorobenzene	ND	1.6	0.71	0.778	
1,2,4-Trichlorobenzene	ND	1.6	0.24	0.778	
1,1,1-Trichloroethane	ND	0.78	0.18	0.778	
1,1,2-Trichloroethane	ND	0.78	0.74	0.778	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	0.27	0.778	
Trichloroethene	1.8	1.6	0.23	0.778	
Trichlorofluoromethane	ND	7.8	0.29	0.778	
1,2,3-Trichloropropane	ND	1.6	0.53	0.778	
1,2,4-Trimethylbenzene	ND	1.6	0.46	0.778	
1,3,5-Trimethylbenzene	ND	1.6	0.43	0.778	
Vinyl Acetate	ND	7.8	3.7	0.778	
Vinyl Chloride	ND	0.78	0.39	0.778	
p/m-Xylene	0.24	1.6	0.21	0.778	J
o-Xylene	ND	0.78	0.43	0.778	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.778	
Tert-Butyl Alcohol (TBA)	ND	16	4.0	0.778	
Diisopropyl Ether (DIPE)	ND	0.78	0.38	0.778	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	0.39	0.778	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	0.27	0.778	
Ethanol	ND	390	65	0.778	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 39 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	104	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-125	**13-06-1375-18-C**	**06/20/13 13:08**	**Soil**	**GC/MS Z**	**06/20/13**	**06/21/13 19:35**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	15	47	5.8	0.933	J
Benzene	3.2	0.93	0.12	0.933	
Bromobenzene	ND	0.93	0.20	0.933	
Bromochloromethane	ND	1.9	0.64	0.933	
Bromodichloromethane	ND	0.93	0.22	0.933	
Bromoform	ND	4.7	0.74	0.933	
Bromomethane	ND	19	8.8	0.933	
2-Butanone	4.3	19	3.5	0.933	J
n-Butylbenzene	ND	0.93	0.15	0.933	
sec-Butylbenzene	ND	0.93	0.54	0.933	
tert-Butylbenzene	ND	0.93	0.14	0.933	
Carbon Disulfide	ND	9.3	0.29	0.933	
Carbon Tetrachloride	ND	0.93	0.26	0.933	
Chlorobenzene	ND	0.93	0.21	0.933	
Chloroethane	ND	1.9	1.8	0.933	
Chloroform	0.29	0.93	0.22	0.933	J
Chloromethane	ND	19	0.64	0.933	
2-Chlorotoluene	ND	0.93	0.22	0.933	
4-Chlorotoluene	ND	0.93	0.20	0.933	
Dibromochloromethane	ND	1.9	0.53	0.933	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.6	0.933	
1,2-Dibromoethane	ND	0.93	0.24	0.933	
Dibromomethane	ND	0.93	0.72	0.933	
1,2-Dichlorobenzene	ND	0.93	0.21	0.933	
1,3-Dichlorobenzene	ND	0.93	0.16	0.933	
1,4-Dichlorobenzene	ND	0.93	0.21	0.933	
Dichlorodifluoromethane	ND	1.9	0.41	0.933	
1,1-Dichloroethane	ND	0.93	0.93	0.933	
1,2-Dichloroethane	ND	0.93	0.29	0.933	
1,1-Dichloroethene	ND	0.93	0.32	0.933	
c-1,2-Dichloroethene	ND	0.93	0.26	0.933	
t-1,2-Dichloroethene	ND	0.93	0.47	0.933	
1,2-Dichloropropane	ND	0.93	0.41	0.933	
1,3-Dichloropropane	ND	0.93	0.24	0.933	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.7	0.31	0.933	
1,1-Dichloropropene	ND	1.9	0.31	0.933	
c-1,3-Dichloropropene	ND	0.93	0.24	0.933	
t-1,3-Dichloropropene	ND	1.9	0.57	0.933	
Ethylbenzene	2.5	0.93	0.14	0.933	
2-Hexanone	ND	19	1.6	0.933	
Isopropylbenzene	ND	0.93	0.51	0.933	
p-Isopropyltoluene	ND	0.93	0.59	0.933	
Methylene Chloride	ND	9.3	1.2	0.933	
4-Methyl-2-Pentanone	ND	19	4.0	0.933	
Naphthalene	ND	9.3	0.76	0.933	
n-Propylbenzene	ND	1.9	0.47	0.933	
Styrene	ND	0.93	0.56	0.933	
1,1,1,2-Tetrachloroethane	ND	0.93	0.22	0.933	
1,1,2,2-Tetrachloroethane	ND	1.9	0.32	0.933	
Tetrachloroethene	ND	0.93	0.20	0.933	
Toluene	5.2	0.93	0.48	0.933	
1,2,3-Trichlorobenzene	ND	1.9	0.85	0.933	
1,2,4-Trichlorobenzene	ND	1.9	0.29	0.933	
1,1,1-Trichloroethane	ND	0.93	0.21	0.933	
1,1,2-Trichloroethane	ND	0.93	0.89	0.933	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.3	0.33	0.933	
Trichloroethene	ND	1.9	0.28	0.933	
Trichlorofluoromethane	ND	9.3	0.35	0.933	
1,2,3-Trichloropropane	ND	1.9	0.64	0.933	
1,2,4-Trimethylbenzene	0.59	1.9	0.55	0.933	J
1,3,5-Trimethylbenzene	ND	1.9	0.51	0.933	
Vinyl Acetate	ND	9.3	4.4	0.933	
Vinyl Chloride	ND	0.93	0.47	0.933	
p/m-Xylene	1.6	1.9	0.25	0.933	J
o-Xylene	0.56	0.93	0.52	0.933	J
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.933	
Tert-Butyl Alcohol (TBA)	ND	19	4.8	0.933	
Diisopropyl Ether (DIPE)	ND	0.93	0.45	0.933	
Ethyl-t-Butyl Ether (ETBE)	ND	0.93	0.47	0.933	
Tert-Amyl-Methyl Ether (TAME)	ND	0.93	0.33	0.933	
Ethanol	ND	470	78	0.933	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 42 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	104	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-246**	**N/A**	**Soil**	**GC/MS Z**	**06/21/13**	**06/21/13 12:17**	**130621L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR 1767			Page 45 of 45

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	96	71-155	
Toluene-d8	106	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-3-GW	**13-06-1375-19-A**	**06/20/13 14:20**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 21:21**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	0.26	0.50	0.14	1	J
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	4.8	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	0.22	1.0	0.14	1	J
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	0.86	1.0	0.39	1	J
Toluene	0.38	1.0	0.24	1	J
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	22	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR 1767		Page 3 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	106	80-126	
1,2-Dichloroethane-d4	107	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-1	**13-06-1375-20-A**	**06/20/13 15:38**	**Aqueous**	**GC/MS GGG**	**06/25/13**	**06/25/13 17:45**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR 1767		Page 6 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	100	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-1	**13-06-1375-21-A**	**06/20/13 15:55**	**Aqueous**	**GC/MS GGG**	**06/25/13**	**06/25/13 18:22**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: KP Chatsworth / WR 1767			Page 9 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	102	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1047**	**N/A**	**Aqueous**	**GC/MS GGG**	**06/25/13**	**06/25/13 17:06**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: KP Chatsworth / WR 1767			Page 12 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	101	80-134	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1048**	**N/A**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 13:15**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR 1767		Page 15 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	104	80-126	
1,2-Dichloroethane-d4	107	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8015B (M)
Page 1 of 8

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1470-1	**Aqueous**	**GC 56**	**06/22/13**	**06/22/13 13:05**	**130622S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1861	93	1927	96	68-122	3	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-07-05	**Soil**	**ICP 7300**	**06/21/13**	**06/22/13 14:16**	**130621S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	6.544	26	7.045	28	50-115	7	0-20	3
Arsenic	2.786	25.00	26.84	96	26.65	95	75-125	1	0-20	
Barium	73.44	25.00	106.6	133	103.5	120	75-125	3	0-20	3
Beryllium	0.2785	25.00	25.62	101	25.55	101	75-125	0	0-20	
Cadmium	1.196	25.00	25.19	96	25.14	96	75-125	0	0-20	
Chromium	12.16	25.00	39.51	109	38.47	105	75-125	3	0-20	
Cobalt	5.509	25.00	30.88	101	31.05	102	75-125	1	0-20	
Copper	9.201	25.00	36.49	109	35.86	107	75-125	2	0-20	
Lead	2.410	25.00	26.11	95	26.16	95	75-125	0	0-20	
Molybdenum	2.008	25.00	25.45	94	25.25	93	75-125	1	0-20	
Nickel	15.09	25.00	41.97	108	41.34	105	75-125	2	0-20	
Selenium	ND	25.00	21.85	87	22.07	88	75-125	1	0-20	
Silver	ND	12.50	9.252	74	9.309	74	75-125	1	0-20	3
Thallium	ND	25.00	23.54	94	23.71	95	75-125	1	0-20	
Vanadium	29.46	25.00	58.53	116	55.44	104	75-125	5	0-20	
Zinc	32.43	25.00	56.27	95	56.48	96	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-07-05	**Soil**	**Mercury**	**06/21/13**	**06/21/13 16:35**	**130621S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6821	82	0.6939	83	71-137	2	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1334-3	**Soil**	**GC/MS EEE**	**06/25/13**	**06/26/13 22:28**	**130625S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.2330	116	0.2332	117	15-171	0	0-44	
2-Methylnaphthalene	ND	0.2000	0.2622	131	0.2554	128	28-160	3	0-39	
1-Methylnaphthalene	ND	0.2000	0.2451	123	0.2491	125	28-154	2	0-40	
Acenaphthylene	ND	0.2000	0.2341	117	0.2450	123	27-153	5	0-41	
Acenaphthene	ND	0.2000	0.2313	116	0.2387	119	33-147	3	0-38	
Fluorene	ND	0.2000	0.2473	124	0.2480	124	12-180	0	0-33	
Phenanthrene	ND	0.2000	0.2487	124	0.2686	134	26-152	8	0-29	
Anthracene	ND	0.2000	0.2185	109	0.2178	109	10-145	0	0-25	
Fluoranthene	ND	0.2000	0.2489	124	0.2747	137	20-158	10	0-31	
Pyrene	ND	0.2000	0.2538	127	0.2802	140	11-191	10	0-31	
Benzo (a) Anthracene	ND	0.2000	0.2497	125	0.2549	127	36-150	2	0-32	
Chrysene	ND	0.2000	0.2301	115	0.2489	124	21-189	8	0-29	
Benzo (k) Fluoranthene	ND	0.2000	0.2442	122	0.2708	135	40-148	10	0-32	
Benzo (b) Fluoranthene	ND	0.2000	0.2722	136	0.2865	143	39-147	5	0-28	
Benzo (a) Pyrene	ND	0.2000	0.2642	132	0.2779	139	36-168	5	0-26	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.2206	110	0.2225	111	22-160	1	0-26	
Dibenz (a,h) Anthracene	ND	0.2000	0.1851	93	0.1907	95	27-147	3	0-30	
Benzo (g,h,i) Perylene	ND	0.2000	0.1515	76	0.1595	80	10-152	5	0-28	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1490-7	**Aqueous**	**GC/MS GGG**	**06/25/13**	**06/25/13 19:36**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	500.0	399.9	80	393.0	79	70-130	2	0-20	
Benzene	ND	500.0	527.0	105	488.3	98	78-120	8	0-20	
Bromobenzene	ND	500.0	524.2	105	503.7	101	70-130	4	0-20	
Bromochloromethane	ND	500.0	507.0	101	480.6	96	70-130	5	0-20	
Bromodichloromethane	ND	500.0	550.0	110	518.8	104	70-130	6	0-20	
Bromoform	ND	500.0	519.7	104	499.1	100	70-130	4	0-20	
Bromomethane	ND	500.0	384.7	77	397.3	79	70-130	3	0-20	
2-Butanone	ND	500.0	415.3	83	404.1	81	70-130	3	0-20	
n-Butylbenzene	ND	500.0	538.8	108	498.3	100	70-130	8	0-25	
sec-Butylbenzene	ND	500.0	517.5	104	477.2	95	70-130	8	0-20	
tert-Butylbenzene	ND	500.0	549.5	110	513.1	103	70-130	7	0-20	
Carbon Disulfide	ND	500.0	492.7	99	460.0	92	70-130	7	0-20	
Carbon Tetrachloride	ND	500.0	518.8	104	483.1	97	69-139	7	0-20	
Chlorobenzene	ND	500.0	495.7	99	468.8	94	70-130	6	0-20	
Chloroethane	ND	500.0	495.0	99	456.7	91	70-130	8	0-20	
Chloroform	39.06	500.0	569.1	106	538.1	100	70-130	6	0-20	
Chloromethane	ND	500.0	582.5	117	518.3	104	70-130	12	0-20	
2-Chlorotoluene	ND	500.0	504.8	101	477.2	95	70-130	6	0-20	
4-Chlorotoluene	ND	500.0	500.6	100	468.9	94	70-130	7	0-20	
Dibromochloromethane	ND	500.0	528.0	106	512.0	102	70-130	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	500.0	434.8	87	417.3	83	70-130	4	0-20	
1,2-Dibromoethane	ND	500.0	489.5	98	475.9	95	80-123	3	0-20	
Dibromomethane	ND	500.0	503.0	101	482.4	96	70-130	4	0-20	
1,2-Dichlorobenzene	ND	500.0	495.4	99	464.4	93	76-120	6	0-20	
1,3-Dichlorobenzene	ND	500.0	486.4	97	457.1	91	70-130	6	0-20	
1,4-Dichlorobenzene	ND	500.0	506.4	101	477.0	95	70-130	6	0-20	
Dichlorodifluoromethane	ND	500.0	664.3	133	609.5	122	70-130	9	0-20	3
1,1-Dichloroethane	511.5	500.0	1020	102	964.2	91	70-130	6	0-20	
1,2-Dichloroethane	6.348	500.0	531.7	105	511.5	101	76-130	4	0-20	
1,1-Dichloroethene	1081	500.0	1596	103	1485	81	70-130	7	0-27	
c-1,2-Dichloroethene	771.3	500.0	1320	110	1254	97	70-130	5	0-20	
t-1,2-Dichloroethene	ND	500.0	539.0	108	506.0	101	70-130	6	0-20	
1,2-Dichloropropane	ND	500.0	526.3	105	494.9	99	70-130	6	0-25	
1,3-Dichloropropane	ND	500.0	515.1	103	496.9	99	70-130	4	0-20	
2,2-Dichloropropane	ND	500.0	624.6	125	544.7	109	70-130	14	0-20	
1,1-Dichloropropene	ND	500.0	547.2	109	509.9	102	70-130	7	0-20	
c-1,3-Dichloropropene	ND	500.0	544.2	109	517.6	104	70-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	500.0	518.4	104	498.1	100	70-130	4	0-20	
Ethylbenzene	ND	500.0	546.7	109	505.7	101	73-127	8	0-20	
2-Hexanone	ND	500.0	393.7	79	385.5	77	70-130	2	0-20	
Isopropylbenzene	ND	500.0	516.7	103	479.2	96	70-130	8	0-20	
p-Isopropyltoluene	ND	500.0	504.2	101	470.3	94	70-130	7	0-20	
Methylene Chloride	ND	500.0	522.8	105	504.0	101	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	500.0	408.2	82	398.2	80	70-130	2	0-20	
Naphthalene	ND	500.0	457.7	92	437.3	87	70-130	5	0-20	
n-Propylbenzene	ND	500.0	500.3	100	465.8	93	70-130	7	0-20	
Styrene	ND	500.0	550.2	110	519.4	104	70-130	6	0-20	
1,1,1,2-Tetrachloroethane	ND	500.0	556.7	111	527.3	105	70-130	5	0-20	
1,1,2,2-Tetrachloroethane	ND	500.0	499.9	100	481.3	96	70-130	4	0-20	
Tetrachloroethene	1047	500.0	1611	113	1479	86	70-130	9	0-20	
Toluene	ND	500.0	537.2	107	496.3	99	72-126	8	0-20	
1,2,3-Trichlorobenzene	ND	500.0	508.8	102	486.7	97	70-130	4	0-20	
1,2,4-Trichlorobenzene	ND	500.0	508.1	102	480.5	96	70-130	6	0-20	
1,1,1-Trichloroethane	44.91	500.0	589.6	109	548.7	101	70-130	7	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	145.2	500.0	690.7	109	646.2	100	70-130	7	0-20	
1,1,2-Trichloroethane	ND	500.0	508.7	102	490.1	98	70-130	4	0-20	
Trichloroethene	359.4	500.0	889.6	106	812.9	91	74-122	9	0-20	
Trichlorofluoromethane	ND	500.0	596.7	119	542.8	109	70-130	9	0-20	
1,2,3-Trichloropropane	ND	500.0	476.7	95	472.1	94	70-130	1	0-20	
1,2,4-Trimethylbenzene	ND	500.0	560.9	112	522.5	105	70-130	7	0-20	
1,3,5-Trimethylbenzene	ND	500.0	573.1	115	533.3	107	70-130	7	0-20	
Vinyl Acetate	ND	500.0	514.9	103	511.1	102	70-130	1	0-20	
Vinyl Chloride	13.61	500.0	502.2	98	462.0	90	65-131	8	0-24	
p/m-Xylene	ND	1000	1053	105	980.5	98	70-130	7	0-20	
o-Xylene	ND	500.0	523.1	105	490.0	98	70-130	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	500.0	497.2	99	488.3	98	69-123	2	0-20	
Tert-Butyl Alcohol (TBA)	ND	2500	2569	103	2573	103	65-131	0	0-22	
Diisopropyl Ether (DIPE)	ND	500.0	536.5	107	518.0	104	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	500.0	525.3	105	510.7	102	69-123	3	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	500.0	526.9	105	502.9	101	70-124	5	0-20	
Ethanol	ND	5000	5738	115	5455	109	41-155	5	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1600-16	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 15:13**	**130626S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	78.35	157	80.85	162	70-130	3	0-20	3
Benzene	ND	50.00	55.83	112	52.43	105	78-120	6	0-20	
Bromobenzene	ND	50.00	56.97	114	53.31	107	70-130	7	0-20	
Bromochloromethane	ND	50.00	53.61	107	51.94	104	70-130	3	0-20	
Bromodichloromethane	ND	50.00	58.20	116	54.92	110	70-130	6	0-20	
Bromoform	ND	50.00	52.85	106	53.46	107	70-130	1	0-20	
Bromomethane	ND	50.00	47.04	94	42.20	84	70-130	11	0-20	
2-Butanone	ND	50.00	56.78	114	59.38	119	70-130	4	0-20	
n-Butylbenzene	ND	50.00	66.68	133	56.68	113	70-130	16	0-25	3
sec-Butylbenzene	ND	50.00	60.73	121	53.26	107	70-130	13	0-20	
tert-Butylbenzene	ND	50.00	61.28	123	55.58	111	70-130	10	0-20	
Carbon Disulfide	ND	50.00	56.59	113	50.78	102	70-130	11	0-20	
Carbon Tetrachloride	ND	50.00	60.92	122	55.69	111	69-139	9	0-20	
Chlorobenzene	ND	50.00	53.40	107	49.48	99	70-130	8	0-20	
Chloroethane	ND	50.00	55.23	110	51.11	102	70-130	8	0-20	
Chloroform	ND	50.00	57.83	116	55.00	110	70-130	5	0-20	
Chloromethane	ND	50.00	58.85	118	56.58	113	70-130	4	0-20	
2-Chlorotoluene	ND	50.00	56.44	113	51.16	102	70-130	10	0-20	
4-Chlorotoluene	ND	50.00	56.29	113	51.06	102	70-130	10	0-20	
Dibromochloromethane	ND	50.00	55.25	111	53.64	107	70-130	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	43.46	87	45.79	92	70-130	5	0-20	
1,2-Dibromoethane	ND	50.00	50.48	101	50.09	100	80-123	1	0-20	
Dibromomethane	ND	50.00	52.74	105	51.39	103	70-130	3	0-20	
1,2-Dichlorobenzene	ND	50.00	52.90	106	49.37	99	76-120	7	0-20	
1,3-Dichlorobenzene	ND	50.00	54.19	108	48.88	98	70-130	10	0-20	
1,4-Dichlorobenzene	ND	50.00	56.76	114	51.69	103	70-130	9	0-20	
Dichlorodifluoromethane	ND	50.00	106.4	213	91.64	183	70-130	15	0-20	3
1,1-Dichloroethane	ND	50.00	55.97	112	52.93	106	70-130	6	0-20	
1,2-Dichloroethane	ND	50.00	55.45	111	53.83	108	76-130	3	0-20	
1,1-Dichloroethene	ND	50.00	59.85	120	54.65	109	70-130	9	0-27	
c-1,2-Dichloroethene	ND	50.00	58.97	118	55.48	111	70-130	6	0-20	
t-1,2-Dichloroethene	ND	50.00	60.63	121	55.77	112	70-130	8	0-20	
1,2-Dichloropropane	ND	50.00	56.25	113	53.51	107	70-130	5	0-25	
1,3-Dichloropropane	ND	50.00	52.80	106	51.57	103	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	80.95	162	72.02	144	70-130	12	0-20	3
1,1-Dichloropropene	ND	50.00	65.86	132	58.24	116	70-130	12	0-20	3
c-1,3-Dichloropropene	ND	50.00	60.27	121	57.11	114	70-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	50.00	55.93	112	54.16	108	70-130	3	0-20	
Ethylbenzene	ND	50.00	60.47	121	54.89	110	73-127	10	0-20	
2-Hexanone	ND	50.00	49.06	98	50.32	101	70-130	3	0-20	
Isopropylbenzene	ND	50.00	58.06	116	52.49	105	70-130	10	0-20	
p-Isopropyltoluene	ND	50.00	59.44	119	51.62	103	70-130	14	0-20	
Methylene Chloride	ND	50.00	56.51	113	54.09	108	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	50.00	42.76	86	45.01	90	70-130	5	0-20	
Naphthalene	ND	50.00	47.60	95	47.61	95	70-130	0	0-20	
n-Propylbenzene	ND	50.00	58.12	116	51.21	102	70-130	13	0-20	
Styrene	ND	50.00	60.01	120	55.63	111	70-130	8	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	58.62	117	55.64	111	70-130	5	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	49.21	98	50.56	101	70-130	3	0-20	
Tetrachloroethene	ND	50.00	55.92	112	50.29	101	70-130	11	0-20	
Toluene	ND	50.00	58.83	118	53.90	108	72-126	9	0-20	
1,2,3-Trichlorobenzene	ND	50.00	57.14	114	52.54	105	70-130	8	0-20	
1,2,4-Trichlorobenzene	ND	50.00	59.12	118	52.34	105	70-130	12	0-20	
1,1,1-Trichloroethane	ND	50.00	61.55	123	56.98	114	70-130	8	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	81.71	163	69.40	139	70-130	16	0-20	3
1,1,2-Trichloroethane	ND	50.00	53.12	106	52.15	104	70-130	2	0-20	
Trichloroethene	ND	50.00	56.39	113	51.84	104	74-122	8	0-20	
Trichlorofluoromethane	ND	50.00	71.35	143	62.82	126	70-130	13	0-20	3
1,2,3-Trichloropropane	ND	50.00	48.71	97	49.88	100	70-130	2	0-20	
1,2,4-Trimethylbenzene	ND	50.00	62.50	125	56.44	113	70-130	10	0-20	
1,3,5-Trimethylbenzene	ND	50.00	64.34	129	57.77	116	70-130	11	0-20	
Vinyl Acetate	ND	50.00	54.67	109	54.99	110	70-130	1	0-20	
Vinyl Chloride	ND	50.00	57.06	114	52.81	106	65-131	8	0-24	
p/m-Xylene	ND	100.0	117.2	117	105.7	106	70-130	10	0-20	
o-Xylene	ND	50.00	56.92	114	52.76	106	70-130	8	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	52.73	105	53.11	106	69-123	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	273.8	110	269.5	108	65-131	2	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	59.38	119	56.80	114	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	57.00	114	55.63	111	69-123	2	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	54.76	110	54.18	108	70-124	1	0-20	
Ethanol	ND	500.0	622.0	124	590.6	118	41-155	5	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3510C
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-286-26	**Aqueous**	**GC 46**	**06/21/13**	**06/21/13 23:43**	**130621B05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	20000	19260	96	17790	89	75-117	8	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3510C
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-296-137	**Aqueous**	**GC 46**	**01/01/95**	**06/21/13 23:10**	**130621B04**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	20000	18560	93	19310	97	75-117	4	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/20/13
1111 Broadway, FL 6TH		Work Order:	13-06-1375
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR 1767			Page 3 of 13

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-704-429	**Aqueous**	**GC 56**	**06/22/13 12:02**	**130622B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	1799	90	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-01-002-16952	**Soil**	**ICP 7300**	**06/24/13 17:32**	**130621L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.29	101	80-120	73-127	
Arsenic	25.00	24.76	99	80-120	73-127	
Barium	25.00	27.60	110	80-120	73-127	
Beryllium	25.00	26.15	105	80-120	73-127	
Cadmium	25.00	26.53	106	80-120	73-127	
Chromium	25.00	26.10	104	80-120	73-127	
Cobalt	25.00	28.02	112	80-120	73-127	
Copper	25.00	25.66	103	80-120	73-127	
Lead	25.00	24.84	99	80-120	73-127	
Molybdenum	25.00	26.03	104	80-120	73-127	
Nickel	25.00	27.53	110	80-120	73-127	
Selenium	25.00	23.99	96	80-120	73-127	
Silver	12.50	12.79	102	80-120	73-127	
Thallium	25.00	25.49	102	80-120	73-127	
Vanadium	25.00	25.71	103	80-120	73-127	
Zinc	25.00	28.27	113	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-04-007-9382	**Soil**	**Mercury**	**06/21/13 16:28**	**130621L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7612	91	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-06-010-1713	**Soil**	**GC/MS EEE**	**06/26/13 17:52**	**130625L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.2179	109	64-118	55-127	
2-Methylnaphthalene	0.2000	0.2262	113	55-127	43-139	
1-Methylnaphthalene	0.2000	0.2120	106	57-129	45-141	
Acenaphthylene	0.2000	0.2131	107	36-132	20-148	
Acenaphthene	0.2000	0.2185	109	61-121	51-131	
Fluorene	0.2000	0.2238	112	56-128	44-140	
Phenanthrene	0.2000	0.2017	101	56-122	45-133	
Anthracene	0.2000	0.1821	91	11-119	0-137	
Fluoranthene	0.2000	0.2067	103	56-122	45-133	
Pyrene	0.2000	0.2248	112	57-129	45-141	
Benzo (a) Anthracene	0.2000	0.2112	106	49-127	36-140	
Chrysene	0.2000	0.2065	103	60-126	49-137	
Benzo (k) Fluoranthene	0.2000	0.2433	122	54-138	40-152	
Benzo (b) Fluoranthene	0.2000	0.2266	113	46-136	31-151	
Benzo (a) Pyrene	0.2000	0.2302	115	40-148	22-166	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.2448	122	43-163	23-183	
Dibenz (a,h) Anthracene	0.2000	0.2016	101	45-153	27-171	
Benzo (g,h,i) Perylene	0.2000	0.1826	91	38-140	21-157	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-246	**Soil**	**GC/MS Z**	**06/21/13**	**06/21/13 10:28**	**130621L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	84.53	169	98.09	196	80-120	73-127	15	0-20	X
Benzene	50.00	49.44	99	49.72	99	80-120	73-127	1	0-20	
Bromobenzene	50.00	47.33	95	48.13	96	80-120	73-127	2	0-20	
Bromochloromethane	50.00	44.00	88	45.86	92	80-120	73-127	4	0-20	
Bromodichloromethane	50.00	48.71	97	49.93	100	80-120	73-127	2	0-20	
Bromoform	50.00	45.50	91	45.07	90	80-120	73-127	1	0-20	
Bromomethane	50.00	42.46	85	48.02	96	80-120	73-127	12	0-20	
2-Butanone	50.00	64.55	129	68.12	136	80-120	73-127	5	0-20	X
n-Butylbenzene	50.00	52.30	105	53.54	107	77-123	69-131	2	0-25	
sec-Butylbenzene	50.00	48.78	98	48.59	97	80-120	73-127	0	0-20	
tert-Butylbenzene	50.00	50.03	100	48.60	97	80-120	73-127	3	0-20	
Carbon Disulfide	50.00	45.18	90	49.61	99	80-120	73-127	9	0-20	
Carbon Tetrachloride	50.00	50.15	100	53.16	106	65-137	53-149	6	0-20	
Chlorobenzene	50.00	46.74	93	47.62	95	80-120	73-127	2	0-20	
Chloroethane	50.00	44.74	89	49.80	100	80-120	73-127	11	0-20	
Chloroform	50.00	45.85	92	47.90	96	80-120	73-127	4	0-20	
Chloromethane	50.00	46.80	94	50.87	102	80-120	73-127	8	0-20	
2-Chlorotoluene	50.00	46.13	92	47.89	96	80-120	73-127	4	0-20	
4-Chlorotoluene	50.00	47.12	94	46.84	94	80-120	73-127	1	0-20	
Dibromochloromethane	50.00	48.13	96	50.38	101	80-120	73-127	5	0-20	
1,2-Dibromo-3-Chloropropane	50.00	50.66	101	47.39	95	80-120	73-127	7	0-20	
1,2-Dibromoethane	50.00	43.50	87	46.31	93	80-120	73-127	6	0-20	
Dibromomethane	50.00	44.88	90	46.99	94	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	50.00	45.33	91	45.21	90	80-120	73-127	0	0-20	
1,3-Dichlorobenzene	50.00	45.64	91	46.41	93	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	48.96	98	49.67	99	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	51.85	104	56.81	114	80-120	73-127	9	0-20	
1,1-Dichloroethane	50.00	43.96	88	49.29	99	80-120	73-127	11	0-20	
1,2-Dichloroethane	50.00	44.12	88	46.49	93	80-120	73-127	5	0-20	
1,1-Dichloroethene	50.00	46.47	93	51.45	103	68-128	58-138	10	0-20	
c-1,2-Dichloroethene	50.00	47.54	95	48.03	96	80-120	73-127	1	0-20	
t-1,2-Dichloroethene	50.00	47.12	94	52.26	105	80-120	73-127	10	0-20	
1,2-Dichloropropane	50.00	48.06	96	50.09	100	79-115	73-121	4	0-25	
1,3-Dichloropropane	50.00	44.82	90	47.73	95	80-120	73-127	6	0-20	
2,2-Dichloropropane	50.00	45.85	92	50.63	101	80-120	73-127	10	0-20	
1,1-Dichloropropene	50.00	49.99	100	53.28	107	80-120	73-127	6	0-20	
c-1,3-Dichloropropene	50.00	49.30	99	50.09	100	80-120	73-127	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5035
Method: EPA 8260B

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	46.08	92	48.79	98	80-120	73-127	6	0-20	
Ethylbenzene	50.00	51.04	102	51.54	103	80-120	73-127	1	0-20	
2-Hexanone	50.00	57.74	115	54.24	108	80-120	73-127	6	0-20	
Isopropylbenzene	50.00	46.76	94	48.01	96	80-120	73-127	3	0-20	
p-Isopropyltoluene	50.00	47.20	94	47.38	95	80-120	73-127	0	0-20	
Methylene Chloride	50.00	44.47	89	49.04	98	80-120	73-127	10	0-20	
4-Methyl-2-Pentanone	50.00	52.79	106	48.03	96	80-120	73-127	9	0-20	
Naphthalene	50.00	45.33	91	46.76	94	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	45.88	92	48.04	96	80-120	73-127	5	0-20	
Styrene	50.00	48.33	97	49.81	100	80-120	73-127	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.76	102	53.10	106	80-120	73-127	4	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.88	104	49.23	98	80-120	73-127	5	0-20	
Tetrachloroethene	50.00	47.03	94	48.07	96	80-120	73-127	2	0-20	
Toluene	50.00	51.20	102	50.64	101	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	45.92	92	46.95	94	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	50.00	46.88	94	47.99	96	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	50.00	47.93	96	51.01	102	80-120	73-127	6	0-20	
1,1,2-Trichloroethane	50.00	45.21	90	47.63	95	80-120	73-127	5	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.43	95	51.34	103	80-120	73-127	8	0-20	
Trichloroethene	50.00	49.74	99	50.12	100	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	54.15	108	59.44	119	80-120	73-127	9	0-20	
1,2,3-Trichloropropane	50.00	47.63	95	46.98	94	80-120	73-127	1	0-20	
1,2,4-Trimethylbenzene	50.00	49.85	100	51.23	102	80-120	73-127	3	0-20	
1,3,5-Trimethylbenzene	50.00	49.41	99	52.38	105	80-120	73-127	6	0-20	
Vinyl Acetate	50.00	44.98	90	46.63	93	80-120	73-127	4	0-20	
Vinyl Chloride	50.00	52.57	105	57.89	116	67-127	57-137	10	0-20	
p/m-Xylene	100.0	93.16	93	95.96	96	80-120	73-127	3	0-20	
o-Xylene	50.00	45.58	91	46.24	92	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	41.64	83	46.69	93	70-124	61-133	11	0-20	
Tert-Butyl Alcohol (TBA)	250.0	233.9	94	232.6	93	73-121	65-129	1	0-20	
Diisopropyl Ether (DIPE)	50.00	46.47	93	48.64	97	69-129	59-139	5	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	47.37	95	48.21	96	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	47.71	95	47.38	95	74-122	66-130	1	0-20	
Ethanol	500.0	495.5	99	481.0	96	51-135	37-149	3	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 0
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/20/13
1111 Broadway, FL 6TH	Work Order:	13-06-1375
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR 1767		Page 9 of 13

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1047	**Aqueous**	**GC/MS GGG**	**06/25/13 15:16**	**130625L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	51.52	103	70-130	60-140	
Benzene	50.00	51.63	103	70-130	60-140	
Bromobenzene	50.00	53.25	106	70-130	60-140	
Bromochloromethane	50.00	47.36	95	70-130	60-140	
Bromodichloromethane	50.00	54.05	108	70-130	60-140	
Bromoform	50.00	52.49	105	70-130	60-140	
Bromomethane	50.00	37.21	74	70-130	60-140	
2-Butanone	50.00	42.77	86	70-130	60-140	
n-Butylbenzene	50.00	59.02	118	77-123	69-131	
sec-Butylbenzene	50.00	55.38	111	70-130	60-140	
tert-Butylbenzene	50.00	57.69	115	70-130	60-140	
Carbon Disulfide	50.00	49.48	99	70-130	60-140	
Carbon Tetrachloride	50.00	52.56	105	66-138	54-150	
Chlorobenzene	50.00	49.84	100	70-130	60-140	
Chloroethane	50.00	47.87	96	70-130	60-140	
Chloroform	50.00	50.42	101	70-130	60-140	
Chloromethane	50.00	58.73	117	70-130	60-140	
2-Chlorotoluene	50.00	52.48	105	70-130	60-140	
4-Chlorotoluene	50.00	52.47	105	70-130	60-140	
Dibromochloromethane	50.00	53.25	107	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	41.81	84	70-130	60-140	
1,2-Dibromoethane	50.00	47.62	95	70-130	60-140	
Dibromomethane	50.00	48.60	97	70-130	60-140	
1,2-Dichlorobenzene	50.00	50.32	101	70-130	60-140	
1,3-Dichlorobenzene	50.00	50.86	102	70-130	60-140	
1,4-Dichlorobenzene	50.00	53.06	106	70-130	60-140	
Dichlorodifluoromethane	50.00	67.91	136	70-130	60-140	ME
1,1-Dichloroethane	50.00	49.10	98	70-130	60-140	
1,2-Dichloroethane	50.00	50.61	101	80-129	72-137	
1,1-Dichloroethene	50.00	51.42	103	71-131	61-141	
c-1,2-Dichloroethene	50.00	51.20	102	70-130	60-140	
t-1,2-Dichloroethene	50.00	52.56	105	70-130	60-140	
1,2-Dichloropropane	50.00	52.25	104	79-115	73-121	
1,3-Dichloropropane	50.00	49.71	99	70-130	60-140	
2,2-Dichloropropane	50.00	56.56	113	70-130	60-140	
1,1-Dichloropropene	50.00	55.01	110	70-130	60-140	
c-1,3-Dichloropropene	50.00	54.28	109	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR 1767

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	51.90	104	70-130	60-140	
Ethylbenzene	50.00	55.78	112	80-123	73-130	
2-Hexanone	50.00	39.49	79	70-130	60-140	
Isopropylbenzene	50.00	53.71	107	70-130	60-140	
p-Isopropyltoluene	50.00	54.98	110	70-130	60-140	
Methylene Chloride	50.00	50.26	101	70-130	60-140	
4-Methyl-2-Pentanone	50.00	38.78	78	70-130	60-140	
Naphthalene	50.00	45.45	91	70-130	60-140	
n-Propylbenzene	50.00	52.66	105	70-130	60-140	
Styrene	50.00	56.23	112	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	57.07	114	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	48.85	98	70-130	60-140	
Tetrachloroethene	50.00	50.89	102	70-130	60-140	
Toluene	50.00	53.60	107	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	54.08	108	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	54.49	109	70-130	60-140	
1,1,1-Trichloroethane	50.00	53.34	107	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	58.07	116	70-130	60-140	
1,1,2-Trichloroethane	50.00	49.76	100	70-130	60-140	
Trichloroethene	50.00	49.98	100	70-130	60-140	
Trichlorofluoromethane	50.00	53.12	106	70-130	60-140	
1,2,3-Trichloropropane	50.00	46.18	92	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	59.08	118	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	59.89	120	70-130	60-140	
Vinyl Acetate	50.00	47.74	95	70-130	60-140	
Vinyl Chloride	50.00	47.68	95	70-136	59-147	
p/m-Xylene	100.0	107.5	107	70-130	60-140	
o-Xylene	50.00	53.43	107	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	47.26	95	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	278.3	111	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	51.64	103	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	51.07	102	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	51.54	103	67-133	56-144	
Ethanol	500.0	608.1	122	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 1
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1048	**Aqueous**	**GC/MS GGG**	**06/26/13 10:16**	**130626L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	44.92	90	70-130	60-140	
Benzene	50.00	51.59	103	70-130	60-140	
Bromobenzene	50.00	52.68	105	70-130	60-140	
Bromochloromethane	50.00	50.63	101	70-130	60-140	
Bromodichloromethane	50.00	54.62	109	70-130	60-140	
Bromoform	50.00	53.03	106	70-130	60-140	
Bromomethane	50.00	39.17	78	70-130	60-140	
2-Butanone	50.00	41.13	82	70-130	60-140	
n-Butylbenzene	50.00	52.41	105	77-123	69-131	
sec-Butylbenzene	50.00	51.12	102	70-130	60-140	
tert-Butylbenzene	50.00	52.85	106	70-130	60-140	
Carbon Disulfide	50.00	50.48	101	70-130	60-140	
Carbon Tetrachloride	50.00	52.32	105	66-138	54-150	
Chlorobenzene	50.00	48.97	98	70-130	60-140	
Chloroethane	50.00	50.62	101	70-130	60-140	
Chloroform	50.00	53.54	107	70-130	60-140	
Chloromethane	50.00	55.44	111	70-130	60-140	
2-Chlorotoluene	50.00	49.83	100	70-130	60-140	
4-Chlorotoluene	50.00	50.42	101	70-130	60-140	
Dibromochloromethane	50.00	53.44	107	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	42.53	85	70-130	60-140	
1,2-Dibromoethane	50.00	48.83	98	70-130	60-140	
Dibromomethane	50.00	49.59	99	70-130	60-140	
1,2-Dichlorobenzene	50.00	48.49	97	70-130	60-140	
1,3-Dichlorobenzene	50.00	48.39	97	70-130	60-140	
1,4-Dichlorobenzene	50.00	50.78	102	70-130	60-140	
Dichlorodifluoromethane	50.00	50.55	101	70-130	60-140	
1,1-Dichloroethane	50.00	52.07	104	70-130	60-140	
1,2-Dichloroethane	50.00	51.98	104	80-129	72-137	
1,1-Dichloroethene	50.00	52.50	105	71-131	61-141	
c-1,2-Dichloroethene	50.00	54.08	108	70-130	60-140	
t-1,2-Dichloroethene	50.00	54.60	109	70-130	60-140	
1,2-Dichloropropane	50.00	52.84	106	79-115	73-121	
1,3-Dichloropropane	50.00	49.97	100	70-130	60-140	
2,2-Dichloropropane	50.00	38.67	77	70-130	60-140	
1,1-Dichloropropene	50.00	55.16	110	70-130	60-140	
c-1,3-Dichloropropene	50.00	51.50	103	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 06/20/13
Work Order: 13-06-1375
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	48.16	96	70-130	60-140	
Ethylbenzene	50.00	53.83	108	80-123	73-130	
2-Hexanone	50.00	38.75	77	70-130	60-140	
Isopropylbenzene	50.00	51.42	103	70-130	60-140	
p-Isopropyltoluene	50.00	49.71	99	70-130	60-140	
Methylene Chloride	50.00	52.73	105	70-130	60-140	
4-Methyl-2-Pentanone	50.00	39.85	80	70-130	60-140	
Naphthalene	50.00	45.29	91	70-130	60-140	
n-Propylbenzene	50.00	49.00	98	70-130	60-140	
Styrene	50.00	54.81	110	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	56.49	113	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	48.42	97	70-130	60-140	
Tetrachloroethene	50.00	53.31	107	70-130	60-140	
Toluene	50.00	53.15	106	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	51.01	102	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.37	101	70-130	60-140	
1,1,1-Trichloroethane	50.00	54.68	109	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	43.32	87	70-130	60-140	
1,1,2-Trichloroethane	50.00	50.16	100	70-130	60-140	
Trichloroethene	50.00	50.16	100	70-130	60-140	
Trichlorofluoromethane	50.00	49.50	99	70-130	60-140	
1,2,3-Trichloropropane	50.00	46.93	94	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	56.01	112	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	56.26	113	70-130	60-140	
Vinyl Acetate	50.00	47.18	94	70-130	60-140	
Vinyl Chloride	50.00	48.22	96	70-136	59-147	
p/m-Xylene	100.0	103.6	104	70-130	60-140	
o-Xylene	50.00	51.80	104	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	50.79	102	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	264.2	106	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	54.57	109	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	53.64	107	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.24	104	67-133	56-144	
Ethanol	500.0	545.1	109	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1375 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 3510C	847	GC 46	1
EPA 8015B (M)	EPA 5030C	799	GC 56	2
EPA 8260B	EPA 5035	796	GC/MS Z	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2
EPA 8270C SIM PAHs	EPA 3545	449	GC/MS EEE	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1375 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/20/2013

PAGE: 1 OF 4

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 13-06-1375

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
1	SV-07-02	6/20/13	0915	Soil	1	X					
2	SV-07-05		0920		5	X	X				
3	SV-07-15		1010		4		X				
4	SV-08-02		1100		1	X					
5	SV-08-05		1115		5	X	X				
6	SV-08-05DUP		1120		5	X	X				
7	SV-08-10		1125		4		X				
8	SV-10-02		1310		1	X					
9	SV-10-05		1315		1	X					
10	SBV-07-05		1420		4		X		X		
11	SBV-07-11		1430		4		X		X		
12	SBV-07-21		1455		4		X		X		
13	SBV-07-32		1505		4		X		X		

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
FMansfield	CBL	6/20/13	1600
	CBL	6/20/13	1822
		Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/20/2013

PAGE: 2 OF 4

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 06-1375

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
11	SBV-07-40	6/20/13	1510	Soil	4		X				
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										

Relinquished by: (Signature) FMansfield	Received by: (Signature)	Date: 6/20/13	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) CH2	Date: 6/20/13	Time: 1830
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
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CHAIN OF CUSTODY RECORD

DATE: 6/20/2013

PAGE: 3 OF 4

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 06-1375

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
15	SBG-3-080	6/20/13	1050	Soil	4		X				
16	SBG-3-100	6/20/13	1130	Soil	4		X				
17	SBG-3-120	6/20/13	1256	Soil	4		X				
18	SBG-3-125	6/20/13	1308	Soil	4		X				
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										
	—										

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/20/13	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 6/20/13	Time: 1822
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/20/2013

PAGE: 4 OF 4

LABORATORY CLIENT: Geosyntec Consultants	CLIENT PROJECT NAME / NUMBER: KP Chatsworth
ADDRESS: 1111 Broadway, 6th Floor	PROJECT CONTACT: Syed Rehan / Frances Mansfield
CITY: Oakland, CA 94607	SAMPLER(S): F.Mansfield / B. Cozzens
TEL: 510-836-3034	E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com
P.O. NO.: WR1767-02	QUOTE NO.:
LAB USE ONLY: 06-1375	

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Groundwater

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	VOCs (8260B)	TPHg (8015M)	TPHd/mo (8015M)
19	SBG-3-GW	6/20/13	1420	Water	6	X	X	X
20	EB-1	6/20/13	1538	Water	6	X	X	X
21	TB-1	6/20/13	1555	Water	2	X		
	—							
	—							
	—							
	—							
	—							
	—							
	—							

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/20/13	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 6/20/13	Time: 1822
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1375

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec DATE: 06/20/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.4 °C - 0.2 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☑	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑(3) TerraCores® ☐2ozPJ

Water: ☐VOA ☑(5) VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☑500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 130613B **Labeled/Checked by:** _____

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** _____

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** _____

#(-2) to (-13) collection date per label is 6/20/13, Matrix is soil.

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1375

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☑ **Sample ID** — (-13) labeled as: SBV-07-30 6/20/13 @ 15:05
  - ☑ **Date and/or Time Collected**
  - ☐ **Project Information** — (-16) collection time per label @ 11:45
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis
19	C,E	5							

Comments: _____

*Transferred at Client's request.

Initial / Date: HY 06/20/13

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Stephen Nowak

From: Frances Mansfield [FMansfield@Geosyntec.com]
Sent: Friday, June 21, 2013 4:22 PM
To: Stephen Nowak
Cc: Syed Rehan
Subject: Re: ***COC!!!***

Steve:

SBV-07-30 and 1130am are correct, respectively.

Yours,

Frances

(from 'phone, hence brevity)
Cell: (714) 292 8785

On Jun 21, 2013, at 8:45, "Stephen Nowak" <snowak@calscience.com> wrote:

> Please see attached COC and sample anomaly form.
>
> Sample SBV-07-32 as listed on the COC is labeled as SBV-07-30.
> Please let me know which is correct.
>
> The sample time for SBG-3-100 on the COC is 11:30 – the sample label states 11:45 as the sample time.
> Please let me know which time is correct.
>
> Thanks-
>
> Stephen Nowak
> Project Manager
> (714) 895-5494
>
> <image001.png>

From: noreply@calscience.com [mailto:noreply@calscience.com]
Sent: Thursday, June 20, 2013 7:52 PM
To: Stephen Nowak; Noel Cruise
Subject: ***COC!!!***

PLEASE SEE ATTACHMENT...

<13061375.pdf>

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1493

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/01/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1493

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1493 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/21/13. They were assigned to Work Order 13-06-1493.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-11-02 (13-06-1493-1)						
Arsenic	3.12		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	67.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.266		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.21		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	12.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.48		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	9.39		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.39		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.32		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	31.2		1.00	mg/kg	EPA 6010B	EPA 3050B
SV-11-05 (13-06-1493-2)						
Arsenic	2.35		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	66.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.223	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.09		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	10.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.69		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	7.79		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.01		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.28		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	12.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	23.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	27.8		1.00	mg/kg	EPA 6010B	EPA 3050B
Acetone	20	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	5.4		0.89	ug/kg	EPA 8260B	EPA 5035
2-Butanone	7.0	J	3.4*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.41	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.1		0.89	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.75	J	0.72*	ug/kg	EPA 8260B	EPA 5035
Toluene	5.9		0.89	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.80	J	0.52*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	2.0		1.8	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.84	J	0.50*	ug/kg	EPA 8260B	EPA 5035

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-11-12 (13-06-1493-3)						
Acetone	18	J	5.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.60	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.59	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.84	J	0.44*	ug/kg	EPA 8260B	EPA 5035
SV-09-02 (13-06-1493-4)						
Arsenic	3.66		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	83.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.294		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.53		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	14.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.88		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	12.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.01		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.59		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	39.4		1.00	mg/kg	EPA 6010B	EPA 3050B
SV-09-05 (13-06-1493-5)						
Arsenic	1.76		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	42.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.138	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.853		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	6.73		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.59		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	5.13		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.17		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.52		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	8.55		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	16.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	17.6		1.00	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-06-05 (13-06-1493-6)						
TPH as Gasoline	0.082	HD,J	0.043*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	11	HD,J	7.0*	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	2.3	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	19	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.2		0.89	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.29	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.89	J	0.14*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	2.6		0.89	ug/kg	EPA 8260B	EPA 5035
Toluene	1.7		0.89	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.28	J	0.27*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.73	J	0.24*	ug/kg	EPA 8260B	EPA 5035
SBV-06-12 (13-06-1493-7)						
TPH as Gasoline	0.066	HD,J	0.042*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	28	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.6		0.92	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.39	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.92	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	6.5		0.92	ug/kg	EPA 8260B	EPA 5035
Toluene	1.8		0.92	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.94	J	0.28*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.51	J	0.25*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.0062	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.0026	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0024	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0030	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-06-21 (13-06-1493-8)						
TPH as Gasoline	0.059	HD,J	0.043*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	14	J	5.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.6		0.86	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.96		0.86	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	7.1		0.86	ug/kg	EPA 8260B	EPA 5035
Toluene	1.8		0.86	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	1.7		1.7	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.50	J	0.23*	ug/kg	EPA 8260B	EPA 5035
Pyrene	0.0021	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-06-29 (13-06-1493-9)						
Acetone	18	J	6.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.3		1.0	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.2		1.0	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	6.3		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	2.5		1.0	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	1.7	J	0.31*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.66	J	0.28*	ug/kg	EPA 8260B	EPA 5035
SBV-06-40 (13-06-1493-10)						
Acetone	12	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.14	J	0.12*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.5		0.90	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	1.8		1.8	ug/kg	EPA 8260B	EPA 5035
SBG-1-005 (13-06-1493-11)						
Acetone	59		54	ug/kg	EPA 8260B	EPA 5035
Benzene	1.0	J	0.14*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	9.8	J	4.1*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.58	J	0.56*	ug/kg	EPA 8260B	EPA 5035
SBG-1-010 (13-06-1493-12)						
Acetone	27	J	6.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.2		1.1	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.2		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	2.4		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.50	J	0.29*	ug/kg	EPA 8260B	EPA 5035
SBG-1-020 (13-06-1493-13)						
Acetone	33	J	6.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.8		0.97	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.1	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.33	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		0.97	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		0.97	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.77	J	0.26*	ug/kg	EPA 8260B	EPA 5035
SBG-1-030 (13-06-1493-14)						
Acetone	25	J	6.4*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.2		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.3	J	3.9*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.25	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Toluene	3.0		1.0	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.1	J	0.28*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-1-040 (13-06-1493-15)						
Acetone	42	J	6.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.5		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.7	J	4.0*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.28	J	0.17*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	4.7		1.1	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	0.65	J	0.54*	ug/kg	EPA 8260B	EPA 5035
Toluene	4.6		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.29*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	7.0	J	5.5*	ug/kg	EPA 8260B	EPA 5035
SBG-1-060 (13-06-1493-16)						
Acetone	13	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.0		0.92	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.20	J	0.14*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.32	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	3.1		0.92	ug/kg	EPA 8260B	EPA 5035
Toluene	4.6		0.92	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.60	J	0.54*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.5	J	0.25*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.65	J	0.51*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	8.4	J	4.8*	ug/kg	EPA 8260B	EPA 5035
SBG-1-090 (13-06-1493-17)						
Acetone	40	J	5.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.9		0.86	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.6	J	3.2*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.22	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	1.7		0.86	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.61	J	0.23*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	9.1	J	4.4*	ug/kg	EPA 8260B	EPA 5035
SBG-1-110 (13-06-1493-18)						
Acetone	30	J	5.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.9		0.95	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.1	J	3.6*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.26	J	0.15*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	3.8		0.95	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	0.55	J	0.48*	ug/kg	EPA 8260B	EPA 5035
Toluene	4.0		0.95	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.92	J	0.25*	ug/kg	EPA 8260B	EPA 5035

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1493
Project Name: KP Chatsworth / WR1767-02
Received: 06/21/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-1-120 (13-06-1493-19)						
Acetone	19	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.6		0.80	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.1	J	3.0*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.29	J	0.12*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.30	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	4.1		0.80	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	0.53	J	0.40*	ug/kg	EPA 8260B	EPA 5035
Toluene	4.2		0.80	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.92	J	0.21*	ug/kg	EPA 8260B	EPA 5035
SV-01-02 (13-06-1493-20)						
Arsenic	3.71		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	97.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.320		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.81		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.26		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	13.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.23		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.87		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	34.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	40.6		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0128	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
SV-01-05 (13-06-1493-21)						
Arsenic	4.11		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	106		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.343		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.85		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	16.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.11		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	14.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.17		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.10		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	41.7		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00588	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Geosyntec Consultants	Work Order:	13-06-1493
	1111 Broadway, FL 6TH	Project Name:	KP Chatsworth / WR1767-02
	Oakland, CA 94607-4172	Received:	06/21/13
Attn:	Syed Rehan		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction

Subcontracted analyses, if any, are not included in this summary.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-05	**13-06-1493-6-A**	**06/21/13 10:30**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:57**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	11	25	7.0	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-12	**13-06-1493-7-A**	**06/21/13 10:45**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:13**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-21	**13-06-1493-8-A**	**06/21/13 11:15**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:28**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	92	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-475**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:06**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-05	**13-06-1493-6-A**	**06/21/13 10:30**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:57**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	2.3	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-12	**13-06-1493-7-A**	**06/21/13 10:45**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:13**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-21	**13-06-1493-8-A**	**06/21/13 11:15**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:28**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	92	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-557**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:06**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-05	**13-06-1493-6-I**	**06/21/13 10:30**	**Soil**	**GC 56**	**06/21/13**	**06/26/13 22:44**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.082	0.21	0.043	0.859	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-12	**13-06-1493-7-I**	**06/21/13 10:45**	**Soil**	**GC 56**	**06/21/13**	**06/26/13 23:15**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.066	0.21	0.042	0.835	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-21	**13-06-1493-8-I**	**06/21/13 11:15**	**Soil**	**GC 56**	**06/21/13**	**06/26/13 23:47**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.059	0.21	0.043	0.858	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	89	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-285-4763**	**N/A**	**Soil**	**GC 56**	**06/26/13**	**06/26/13 13:14**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-02	**13-06-1493-1-A**	**06/21/13 07:50**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:28**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.12	0.750	0.259	1	
Barium	67.4	0.500	0.154	1	
Beryllium	0.266	0.250	0.137	1	
Cadmium	1.21	0.500	0.135	1	
Chromium	12.0	0.250	0.142	1	
Cobalt	5.48	0.250	0.148	1	
Copper	9.39	0.500	0.135	1	
Lead	2.39	0.500	0.132	1	
Molybdenum	2.32	0.250	0.132	1	
Nickel	15.0	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	27.8	0.250	0.141	1	
Zinc	31.2	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-05	**13-06-1493-2-A**	**06/21/13 08:00**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:30**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.35	0.750	0.259	1	
Barium	66.0	0.500	0.154	1	
Beryllium	0.223	0.250	0.137	1	J
Cadmium	1.09	0.500	0.135	1	
Chromium	10.5	0.250	0.142	1	
Cobalt	4.69	0.250	0.148	1	
Copper	7.79	0.500	0.135	1	
Lead	2.01	0.500	0.132	1	
Molybdenum	2.28	0.250	0.132	1	
Nickel	12.5	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	23.5	0.250	0.141	1	
Zinc	27.8	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-09-02	**13-06-1493-4-A**	**06/21/13 09:50**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:33**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.66	0.750	0.259	1	
Barium	83.7	0.500	0.154	1	
Beryllium	0.294	0.250	0.137	1	
Cadmium	1.53	0.500	0.135	1	
Chromium	14.2	0.250	0.142	1	
Cobalt	5.88	0.250	0.148	1	
Copper	12.2	0.500	0.135	1	
Lead	3.01	0.500	0.132	1	
Molybdenum	2.59	0.250	0.132	1	
Nickel	18.1	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	31.3	0.250	0.141	1	
Zinc	39.4	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-09-05	**13-06-1493-5-A**	**06/21/13 10:00**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:35**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	1.76	0.750	0.259	1	
Barium	42.3	0.500	0.154	1	
Beryllium	0.138	0.250	0.137	1	J
Cadmium	0.853	0.500	0.135	1	
Chromium	6.73	0.250	0.142	1	
Cobalt	2.59	0.250	0.148	1	
Copper	5.13	0.500	0.135	1	
Lead	1.17	0.500	0.132	1	
Molybdenum	1.52	0.250	0.132	1	
Nickel	8.55	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	16.2	0.250	0.141	1	
Zinc	17.6	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-02	**13-06-1493-20-A**	**06/21/13 15:26**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:36**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.71	0.750	0.259	1	
Barium	97.4	0.500	0.154	1	
Beryllium	0.320	0.250	0.137	1	
Cadmium	1.81	0.500	0.135	1	
Chromium	15.4	0.250	0.142	1	
Cobalt	9.26	0.250	0.148	1	
Copper	13.1	0.500	0.135	1	
Lead	3.23	0.500	0.132	1	
Molybdenum	2.87	0.250	0.132	1	
Nickel	20.9	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	34.7	0.250	0.141	1	
Zinc	40.6	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-05	**13-06-1493-21-A**	**06/21/13 15:32**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:37**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.11	0.750	0.259	1	
Barium	106	0.500	0.154	1	
Beryllium	0.343	0.250	0.137	1	
Cadmium	1.85	0.500	0.135	1	
Chromium	16.9	0.250	0.142	1	
Cobalt	7.11	0.250	0.148	1	
Copper	14.4	0.500	0.135	1	
Lead	3.17	0.500	0.132	1	
Molybdenum	3.10	0.250	0.132	1	
Nickel	21.9	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	37.9	0.250	0.141	1	
Zinc	41.7	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-16970**	**N/A**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 17:36**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	ND	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-02	**13-06-1493-1-A**	**06/21/13 07:50**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 13:56**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-05	**13-06-1493-2-A**	**06/21/13 08:00**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 13:58**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-09-02	**13-06-1493-4-A**	**06/21/13 09:50**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 14:00**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-09-05	**13-06-1493-5-A**	**06/21/13 10:00**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 14:02**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-02	**13-06-1493-20-A**	**06/21/13 15:26**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 14:04**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0128	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-01-05	**13-06-1493-21-A**	**06/21/13 15:32**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 14:11**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00588	0.0835	0.00588	1	J

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/21/13
Work Order:	13-06-1493
Preparation:	EPA 7471A Total
Method:	EPA 7471A
Units:	mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9388**	**N/A**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 13:51**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-05	**13-06-1493-6-A**	**06/21/13 10:30**	**Soil**	**GC/MS EEE**	**06/24/13**	**06/27/13 22:43**	**130624L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	72	14-146	
Nitrobenzene-d5	82	18-162	
p-Terphenyl-d14	93	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-12	**13-06-1493-7-A**	**06/21/13 10:45**	**Soil**	**GC/MS EEE**	**06/24/13**	**06/27/13 23:52**	**130624L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.0062	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.0026	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0024	0.020	0.0020	1	J
Pyrene	0.0030	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	14-146	
Nitrobenzene-d5	79	18-162	
p-Terphenyl-d14	87	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-21	**13-06-1493-8-A**	**06/21/13 11:15**	**Soil**	**GC/MS EEE**	**06/24/13**	**06/28/13 00:16**	**130624L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	0.0021	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	57	14-146	
Nitrobenzene-d5	74	18-162	
p-Terphenyl-d14	76	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-29	**13-06-1493-9-A**	**06/21/13 11:45**	**Soil**	**GC/MS EEE**	**06/24/13**	**06/28/13 00:39**	**130624L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	39	14-146	
Nitrobenzene-d5	48	18-162	
p-Terphenyl-d14	47	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-1717**	**N/A**	**Soil**	**GC/MS EEE**	**06/24/13**	**06/27/13 21:57**	**130624L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	89	14-146	
Nitrobenzene-d5	101	18-162	
p-Terphenyl-d14	113	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-05	**13-06-1493-2-E**	**06/21/13 08:00**	**Soil**	**GC/MS BB**	**06/21/13**	**06/26/13 02:13**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	20	44	5.6	0.89	J
Benzene	5.4	0.89	0.12	0.89	
Bromobenzene	ND	0.89	0.19	0.89	
Bromochloromethane	ND	1.8	0.61	0.89	
Bromodichloromethane	ND	0.89	0.21	0.89	
Bromoform	ND	4.4	0.71	0.89	
Bromomethane	ND	18	8.4	0.89	
2-Butanone	7.0	18	3.4	0.89	J
n-Butylbenzene	ND	0.89	0.14	0.89	
sec-Butylbenzene	ND	0.89	0.51	0.89	
tert-Butylbenzene	ND	0.89	0.13	0.89	
Carbon Disulfide	0.41	8.9	0.27	0.89	J
Carbon Tetrachloride	ND	0.89	0.25	0.89	
Chlorobenzene	ND	0.89	0.20	0.89	
Chloroethane	ND	1.8	1.7	0.89	
Chloroform	ND	0.89	0.21	0.89	
Chloromethane	ND	18	0.61	0.89	
2-Chlorotoluene	ND	0.89	0.21	0.89	
4-Chlorotoluene	ND	0.89	0.19	0.89	
Dibromochloromethane	ND	1.8	0.51	0.89	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.89	
1,2-Dibromoethane	ND	0.89	0.23	0.89	
Dibromomethane	ND	0.89	0.69	0.89	
1,2-Dichlorobenzene	ND	0.89	0.20	0.89	
1,3-Dichlorobenzene	ND	0.89	0.16	0.89	
1,4-Dichlorobenzene	ND	0.89	0.20	0.89	
Dichlorodifluoromethane	ND	1.8	0.39	0.89	
1,1-Dichloroethane	ND	0.89	0.89	0.89	
1,2-Dichloroethane	ND	0.89	0.28	0.89	
1,1-Dichloroethene	ND	0.89	0.31	0.89	
c-1,2-Dichloroethene	ND	0.89	0.25	0.89	
t-1,2-Dichloroethene	ND	0.89	0.45	0.89	
1,2-Dichloropropane	ND	0.89	0.39	0.89	
1,3-Dichloropropane	ND	0.89	0.22	0.89	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.89	
1,1-Dichloropropene	ND	1.8	0.29	0.89	
c-1,3-Dichloropropene	ND	0.89	0.23	0.89	
t-1,3-Dichloropropene	ND	1.8	0.54	0.89	
Ethylbenzene	2.1	0.89	0.13	0.89	
2-Hexanone	ND	18	1.6	0.89	
Isopropylbenzene	ND	0.89	0.49	0.89	
p-Isopropyltoluene	ND	0.89	0.56	0.89	
Methylene Chloride	ND	8.9	1.2	0.89	
4-Methyl-2-Pentanone	ND	18	3.8	0.89	
Naphthalene	0.75	8.9	0.72	0.89	J
n-Propylbenzene	ND	1.8	0.45	0.89	
Styrene	ND	0.89	0.54	0.89	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	0.89	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	0.89	
Tetrachloroethene	ND	0.89	0.19	0.89	
Toluene	5.9	0.89	0.46	0.89	
1,2,3-Trichlorobenzene	ND	1.8	0.81	0.89	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.89	
1,1,1-Trichloroethane	ND	0.89	0.20	0.89	
1,1,2-Trichloroethane	ND	0.89	0.85	0.89	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	0.89	
Trichloroethene	ND	1.8	0.27	0.89	
Trichlorofluoromethane	ND	8.9	0.33	0.89	
1,2,3-Trichloropropane	ND	1.8	0.61	0.89	
1,2,4-Trimethylbenzene	0.80	1.8	0.52	0.89	J
1,3,5-Trimethylbenzene	ND	1.8	0.49	0.89	
Vinyl Acetate	ND	8.9	4.2	0.89	
Vinyl Chloride	ND	0.89	0.45	0.89	
p/m-Xylene	2.0	1.8	0.24	0.89	
o-Xylene	0.84	0.89	0.50	0.89	J
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.89	
Tert-Butyl Alcohol (TBA)	ND	18	4.6	0.89	
Diisopropyl Ether (DIPE)	ND	0.89	0.43	0.89	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	0.45	0.89	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	0.31	0.89	
Ethanol	ND	440	74	0.89	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 3 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-11-12	**13-06-1493-3-C**	**06/21/13 08:40**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 17:57**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	42	5.3	0.85	J
Benzene	0.60	0.85	0.11	0.85	J
Bromobenzene	ND	0.85	0.18	0.85	
Bromochloromethane	ND	1.7	0.59	0.85	
Bromodichloromethane	ND	0.85	0.20	0.85	
Bromoform	ND	4.2	0.68	0.85	
Bromomethane	ND	17	8.0	0.85	
2-Butanone	ND	17	3.2	0.85	
n-Butylbenzene	ND	0.85	0.13	0.85	
sec-Butylbenzene	ND	0.85	0.49	0.85	
tert-Butylbenzene	ND	0.85	0.13	0.85	
Carbon Disulfide	ND	8.5	0.26	0.85	
Carbon Tetrachloride	ND	0.85	0.24	0.85	
Chlorobenzene	ND	0.85	0.19	0.85	
Chloroethane	ND	1.7	1.6	0.85	
Chloroform	ND	0.85	0.20	0.85	
Chloromethane	ND	17	0.58	0.85	
2-Chlorotoluene	ND	0.85	0.20	0.85	
4-Chlorotoluene	ND	0.85	0.18	0.85	
Dibromochloromethane	ND	1.7	0.48	0.85	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.5	0.85	
1,2-Dibromoethane	ND	0.85	0.22	0.85	
Dibromomethane	ND	0.85	0.66	0.85	
1,2-Dichlorobenzene	ND	0.85	0.19	0.85	
1,3-Dichlorobenzene	ND	0.85	0.15	0.85	
1,4-Dichlorobenzene	ND	0.85	0.19	0.85	
Dichlorodifluoromethane	ND	1.7	0.38	0.85	
1,1-Dichloroethane	ND	0.85	0.85	0.85	
1,2-Dichloroethane	ND	0.85	0.27	0.85	
1,1-Dichloroethene	ND	0.85	0.29	0.85	
c-1,2-Dichloroethene	ND	0.85	0.24	0.85	
t-1,2-Dichloroethene	ND	0.85	0.43	0.85	
1,2-Dichloropropane	ND	0.85	0.37	0.85	
1,3-Dichloropropane	ND	0.85	0.21	0.85	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.2	0.28	0.85	
1,1-Dichloropropene	ND	1.7	0.28	0.85	
c-1,3-Dichloropropene	ND	0.85	0.22	0.85	
t-1,3-Dichloropropene	ND	1.7	0.51	0.85	
Ethylbenzene	0.59	0.85	0.13	0.85	J
2-Hexanone	ND	17	1.5	0.85	
Isopropylbenzene	ND	0.85	0.46	0.85	
p-Isopropyltoluene	ND	0.85	0.54	0.85	
Methylene Chloride	ND	8.5	1.1	0.85	
4-Methyl-2-Pentanone	ND	17	3.7	0.85	
Naphthalene	ND	8.5	0.69	0.85	
n-Propylbenzene	ND	1.7	0.43	0.85	
Styrene	ND	0.85	0.51	0.85	
1,1,1,2-Tetrachloroethane	ND	0.85	0.20	0.85	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	0.85	
Tetrachloroethene	ND	0.85	0.18	0.85	
Toluene	0.84	0.85	0.44	0.85	J
1,2,3-Trichlorobenzene	ND	1.7	0.78	0.85	
1,2,4-Trichlorobenzene	ND	1.7	0.26	0.85	
1,1,1-Trichloroethane	ND	0.85	0.19	0.85	
1,1,2-Trichloroethane	ND	0.85	0.81	0.85	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.5	0.30	0.85	
Trichloroethene	ND	1.7	0.26	0.85	
Trichlorofluoromethane	ND	8.5	0.32	0.85	
1,2,3-Trichloropropane	ND	1.7	0.58	0.85	
1,2,4-Trimethylbenzene	ND	1.7	0.50	0.85	
1,3,5-Trimethylbenzene	ND	1.7	0.47	0.85	
Vinyl Acetate	ND	8.5	4.0	0.85	
Vinyl Chloride	ND	0.85	0.43	0.85	
p/m-Xylene	ND	1.7	0.23	0.85	
o-Xylene	ND	0.85	0.47	0.85	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.85	
Tert-Butyl Alcohol (TBA)	ND	17	4.4	0.85	
Diisopropyl Ether (DIPE)	ND	0.85	0.41	0.85	
Ethyl-t-Butyl Ether (ETBE)	ND	0.85	0.43	0.85	
Tert-Amyl-Methyl Ether (TAME)	ND	0.85	0.30	0.85	
Ethanol	ND	420	71	0.85	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 6 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	102	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-05	**13-06-1493-6-E**	**06/21/13 10:30**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 18:24**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	19	45	5.6	0.894	J
Benzene	1.2	0.89	0.12	0.894	
Bromobenzene	ND	0.89	0.19	0.894	
Bromochloromethane	ND	1.8	0.62	0.894	
Bromodichloromethane	ND	0.89	0.21	0.894	
Bromoform	ND	4.5	0.71	0.894	
Bromomethane	ND	18	8.4	0.894	
2-Butanone	ND	18	3.4	0.894	
n-Butylbenzene	ND	0.89	0.14	0.894	
sec-Butylbenzene	ND	0.89	0.52	0.894	
tert-Butylbenzene	ND	0.89	0.13	0.894	
Carbon Disulfide	0.29	8.9	0.27	0.894	J
Carbon Tetrachloride	ND	0.89	0.25	0.894	
Chlorobenzene	ND	0.89	0.20	0.894	
Chloroethane	ND	1.8	1.7	0.894	
Chloroform	ND	0.89	0.21	0.894	
Chloromethane	ND	18	0.62	0.894	
2-Chlorotoluene	ND	0.89	0.21	0.894	
4-Chlorotoluene	ND	0.89	0.19	0.894	
Dibromochloromethane	ND	1.8	0.51	0.894	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	0.894	
1,2-Dibromoethane	ND	0.89	0.23	0.894	
Dibromomethane	ND	0.89	0.69	0.894	
1,2-Dichlorobenzene	ND	0.89	0.20	0.894	
1,3-Dichlorobenzene	ND	0.89	0.16	0.894	
1,4-Dichlorobenzene	ND	0.89	0.20	0.894	
Dichlorodifluoromethane	ND	1.8	0.40	0.894	
1,1-Dichloroethane	ND	0.89	0.89	0.894	
1,2-Dichloroethane	ND	0.89	0.28	0.894	
1,1-Dichloroethene	ND	0.89	0.31	0.894	
c-1,2-Dichloroethene	ND	0.89	0.25	0.894	
t-1,2-Dichloroethene	ND	0.89	0.45	0.894	
1,2-Dichloropropane	ND	0.89	0.39	0.894	
1,3-Dichloropropane	ND	0.89	0.23	0.894	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.5	0.30	0.894	
1,1-Dichloropropene	ND	1.8	0.29	0.894	
c-1,3-Dichloropropene	ND	0.89	0.23	0.894	
t-1,3-Dichloropropene	ND	1.8	0.54	0.894	
Ethylbenzene	0.89	0.89	0.14	0.894	J
2-Hexanone	ND	18	1.6	0.894	
Isopropylbenzene	ND	0.89	0.49	0.894	
p-Isopropyltoluene	ND	0.89	0.56	0.894	
Methylene Chloride	ND	8.9	1.2	0.894	
4-Methyl-2-Pentanone	ND	18	3.9	0.894	
Naphthalene	ND	8.9	0.73	0.894	
n-Propylbenzene	ND	1.8	0.45	0.894	
Styrene	ND	0.89	0.54	0.894	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	0.894	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	0.894	
Tetrachloroethene	2.6	0.89	0.19	0.894	
Toluene	1.7	0.89	0.46	0.894	
1,2,3-Trichlorobenzene	ND	1.8	0.82	0.894	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.894	
1,1,1-Trichloroethane	ND	0.89	0.20	0.894	
1,1,2-Trichloroethane	ND	0.89	0.85	0.894	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	0.894	
Trichloroethene	0.28	1.8	0.27	0.894	J
Trichlorofluoromethane	ND	8.9	0.34	0.894	
1,2,3-Trichloropropane	ND	1.8	0.61	0.894	
1,2,4-Trimethylbenzene	ND	1.8	0.52	0.894	
1,3,5-Trimethylbenzene	ND	1.8	0.49	0.894	
Vinyl Acetate	ND	8.9	4.2	0.894	
Vinyl Chloride	ND	0.89	0.45	0.894	
p/m-Xylene	0.73	1.8	0.24	0.894	J
o-Xylene	ND	0.89	0.50	0.894	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.894	
Tert-Butyl Alcohol (TBA)	ND	18	4.6	0.894	
Diisopropyl Ether (DIPE)	ND	0.89	0.43	0.894	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	0.45	0.894	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	0.31	0.894	
Ethanol	ND	450	75	0.894	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 9 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-12	**13-06-1493-7-E**	**06/21/13 10:45**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 18:50**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	28	46	5.8	0.924	J
Benzene	1.6	0.92	0.12	0.924	
Bromobenzene	ND	0.92	0.19	0.924	
Bromochloromethane	ND	1.8	0.64	0.924	
Bromodichloromethane	ND	0.92	0.22	0.924	
Bromoform	ND	4.6	0.73	0.924	
Bromomethane	ND	18	8.7	0.924	
2-Butanone	ND	18	3.5	0.924	
n-Butylbenzene	ND	0.92	0.14	0.924	
sec-Butylbenzene	ND	0.92	0.53	0.924	
tert-Butylbenzene	ND	0.92	0.14	0.924	
Carbon Disulfide	0.39	9.2	0.28	0.924	J
Carbon Tetrachloride	ND	0.92	0.26	0.924	
Chlorobenzene	ND	0.92	0.21	0.924	
Chloroethane	ND	1.8	1.7	0.924	
Chloroform	ND	0.92	0.22	0.924	
Chloromethane	ND	18	0.64	0.924	
2-Chlorotoluene	ND	0.92	0.21	0.924	
4-Chlorotoluene	ND	0.92	0.20	0.924	
Dibromochloromethane	ND	1.8	0.53	0.924	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.924	
1,2-Dibromoethane	ND	0.92	0.24	0.924	
Dibromomethane	ND	0.92	0.72	0.924	
1,2-Dichlorobenzene	ND	0.92	0.21	0.924	
1,3-Dichlorobenzene	ND	0.92	0.16	0.924	
1,4-Dichlorobenzene	ND	0.92	0.21	0.924	
Dichlorodifluoromethane	ND	1.8	0.41	0.924	
1,1-Dichloroethane	ND	0.92	0.92	0.924	
1,2-Dichloroethane	ND	0.92	0.29	0.924	
1,1-Dichloroethene	ND	0.92	0.32	0.924	
c-1,2-Dichloroethene	ND	0.92	0.26	0.924	
t-1,2-Dichloroethene	ND	0.92	0.47	0.924	
1,2-Dichloropropane	ND	0.92	0.40	0.924	
1,3-Dichloropropane	ND	0.92	0.23	0.924	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.924	
1,1-Dichloropropene	ND	1.8	0.30	0.924	
c-1,3-Dichloropropene	ND	0.92	0.24	0.924	
t-1,3-Dichloropropene	ND	1.8	0.56	0.924	
Ethylbenzene	1.1	0.92	0.14	0.924	
2-Hexanone	ND	18	1.6	0.924	
Isopropylbenzene	ND	0.92	0.50	0.924	
p-Isopropyltoluene	ND	0.92	0.58	0.924	
Methylene Chloride	ND	9.2	1.2	0.924	
4-Methyl-2-Pentanone	ND	18	4.0	0.924	
Naphthalene	ND	9.2	0.75	0.924	
n-Propylbenzene	ND	1.8	0.46	0.924	
Styrene	ND	0.92	0.56	0.924	
1,1,1,2-Tetrachloroethane	ND	0.92	0.22	0.924	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.924	
Tetrachloroethene	6.5	0.92	0.19	0.924	
Toluene	1.8	0.92	0.48	0.924	
1,2,3-Trichlorobenzene	ND	1.8	0.84	0.924	
1,2,4-Trichlorobenzene	ND	1.8	0.29	0.924	
1,1,1-Trichloroethane	ND	0.92	0.21	0.924	
1,1,2-Trichloroethane	ND	0.92	0.88	0.924	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	0.33	0.924	
Trichloroethene	0.94	1.8	0.28	0.924	J
Trichlorofluoromethane	ND	9.2	0.35	0.924	
1,2,3-Trichloropropane	ND	1.8	0.63	0.924	
1,2,4-Trimethylbenzene	ND	1.8	0.54	0.924	
1,3,5-Trimethylbenzene	ND	1.8	0.51	0.924	
Vinyl Acetate	ND	9.2	4.4	0.924	
Vinyl Chloride	ND	0.92	0.46	0.924	
p/m-Xylene	0.51	1.8	0.25	0.924	J
o-Xylene	ND	0.92	0.51	0.924	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.924	
Tert-Butyl Alcohol (TBA)	ND	18	4.8	0.924	
Diisopropyl Ether (DIPE)	ND	0.92	0.45	0.924	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	0.47	0.924	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	0.33	0.924	
Ethanol	ND	460	77	0.924	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 12 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	129	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 13 of 57

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-21	**13-06-1493-8-E**	**06/21/13 11:15**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 19:17**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	14	43	5.3	0.856	J
Benzene	1.6	0.86	0.11	0.856	
Bromobenzene	ND	0.86	0.18	0.856	
Bromochloromethane	ND	1.7	0.59	0.856	
Bromodichloromethane	ND	0.86	0.20	0.856	
Bromoform	ND	4.3	0.68	0.856	
Bromomethane	ND	17	8.1	0.856	
2-Butanone	ND	17	3.2	0.856	
n-Butylbenzene	ND	0.86	0.13	0.856	
sec-Butylbenzene	ND	0.86	0.49	0.856	
tert-Butylbenzene	ND	0.86	0.13	0.856	
Carbon Disulfide	ND	8.6	0.26	0.856	
Carbon Tetrachloride	ND	0.86	0.24	0.856	
Chlorobenzene	ND	0.86	0.19	0.856	
Chloroethane	ND	1.7	1.6	0.856	
Chloroform	ND	0.86	0.20	0.856	
Chloromethane	ND	17	0.59	0.856	
2-Chlorotoluene	ND	0.86	0.20	0.856	
4-Chlorotoluene	ND	0.86	0.18	0.856	
Dibromochloromethane	ND	1.7	0.49	0.856	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.5	0.856	
1,2-Dibromoethane	ND	0.86	0.22	0.856	
Dibromomethane	ND	0.86	0.66	0.856	
1,2-Dichlorobenzene	ND	0.86	0.20	0.856	
1,3-Dichlorobenzene	ND	0.86	0.15	0.856	
1,4-Dichlorobenzene	ND	0.86	0.19	0.856	
Dichlorodifluoromethane	ND	1.7	0.38	0.856	
1,1-Dichloroethane	ND	0.86	0.86	0.856	
1,2-Dichloroethane	ND	0.86	0.27	0.856	
1,1-Dichloroethene	ND	0.86	0.30	0.856	
c-1,2-Dichloroethene	ND	0.86	0.24	0.856	
t-1,2-Dichloroethene	ND	0.86	0.43	0.856	
1,2-Dichloropropane	ND	0.86	0.38	0.856	
1,3-Dichloropropane	ND	0.86	0.22	0.856	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.3	0.28	0.856	
1,1-Dichloropropene	ND	1.7	0.28	0.856	
c-1,3-Dichloropropene	ND	0.86	0.22	0.856	
t-1,3-Dichloropropene	ND	1.7	0.52	0.856	
Ethylbenzene	0.96	0.86	0.13	0.856	
2-Hexanone	ND	17	1.5	0.856	
Isopropylbenzene	ND	0.86	0.47	0.856	
p-Isopropyltoluene	ND	0.86	0.54	0.856	
Methylene Chloride	ND	8.6	1.1	0.856	
4-Methyl-2-Pentanone	ND	17	3.7	0.856	
Naphthalene	ND	8.6	0.70	0.856	
n-Propylbenzene	ND	1.7	0.43	0.856	
Styrene	ND	0.86	0.52	0.856	
1,1,1,2-Tetrachloroethane	ND	0.86	0.21	0.856	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	0.856	
Tetrachloroethene	7.1	0.86	0.18	0.856	
Toluene	1.8	0.86	0.44	0.856	
1,2,3-Trichlorobenzene	ND	1.7	0.78	0.856	
1,2,4-Trichlorobenzene	ND	1.7	0.27	0.856	
1,1,1-Trichloroethane	ND	0.86	0.19	0.856	
1,1,2-Trichloroethane	ND	0.86	0.81	0.856	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	0.30	0.856	
Trichloroethene	1.7	1.7	0.26	0.856	
Trichlorofluoromethane	ND	8.6	0.32	0.856	
1,2,3-Trichloropropane	ND	1.7	0.59	0.856	
1,2,4-Trimethylbenzene	ND	1.7	0.50	0.856	
1,3,5-Trimethylbenzene	ND	1.7	0.47	0.856	
Vinyl Acetate	ND	8.6	4.1	0.856	
Vinyl Chloride	ND	0.86	0.43	0.856	
p/m-Xylene	0.50	1.7	0.23	0.856	J
o-Xylene	ND	0.86	0.48	0.856	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.856	
Tert-Butyl Alcohol (TBA)	ND	17	4.4	0.856	
Diisopropyl Ether (DIPE)	ND	0.86	0.41	0.856	
Ethyl-t-Butyl Ether (ETBE)	ND	0.86	0.43	0.856	
Tert-Amyl-Methyl Ether (TAME)	ND	0.86	0.30	0.856	
Ethanol	ND	430	72	0.856	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 15 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-29	**13-06-1493-9-D**	**06/21/13 11:45**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 19:43**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	52	6.5	1.04	J
Benzene	2.3	1.0	0.13	1.04	
Bromobenzene	ND	1.0	0.22	1.04	
Bromochloromethane	ND	2.1	0.72	1.04	
Bromodichloromethane	ND	1.0	0.24	1.04	
Bromoform	ND	5.2	0.83	1.04	
Bromomethane	ND	21	9.8	1.04	
2-Butanone	ND	21	3.9	1.04	
n-Butylbenzene	ND	1.0	0.16	1.04	
sec-Butylbenzene	ND	1.0	0.60	1.04	
tert-Butylbenzene	ND	1.0	0.16	1.04	
Carbon Disulfide	ND	10	0.32	1.04	
Carbon Tetrachloride	ND	1.0	0.29	1.04	
Chlorobenzene	ND	1.0	0.23	1.04	
Chloroethane	ND	2.1	2.0	1.04	
Chloroform	ND	1.0	0.25	1.04	
Chloromethane	ND	21	0.72	1.04	
2-Chlorotoluene	ND	1.0	0.24	1.04	
4-Chlorotoluene	ND	1.0	0.22	1.04	
Dibromochloromethane	ND	2.1	0.59	1.04	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.04	
1,2-Dibromoethane	ND	1.0	0.27	1.04	
Dibromomethane	ND	1.0	0.81	1.04	
1,2-Dichlorobenzene	ND	1.0	0.24	1.04	
1,3-Dichlorobenzene	ND	1.0	0.18	1.04	
1,4-Dichlorobenzene	ND	1.0	0.23	1.04	
Dichlorodifluoromethane	ND	2.1	0.46	1.04	
1,1-Dichloroethane	ND	1.0	1.0	1.04	
1,2-Dichloroethane	ND	1.0	0.33	1.04	
1,1-Dichloroethene	ND	1.0	0.36	1.04	
c-1,2-Dichloroethene	ND	1.0	0.29	1.04	
t-1,2-Dichloroethene	ND	1.0	0.53	1.04	
1,2-Dichloropropane	ND	1.0	0.46	1.04	
1,3-Dichloropropane	ND	1.0	0.26	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.34	1.04	
1,1-Dichloropropene	ND	2.1	0.34	1.04	
c-1,3-Dichloropropene	ND	1.0	0.26	1.04	
t-1,3-Dichloropropene	ND	2.1	0.63	1.04	
Ethylbenzene	1.2	1.0	0.16	1.04	
2-Hexanone	ND	21	1.8	1.04	
Isopropylbenzene	ND	1.0	0.57	1.04	
p-Isopropyltoluene	ND	1.0	0.65	1.04	
Methylene Chloride	ND	10	1.4	1.04	
4-Methyl-2-Pentanone	ND	21	4.5	1.04	
Naphthalene	ND	10	0.85	1.04	
n-Propylbenzene	ND	2.1	0.52	1.04	
Styrene	ND	1.0	0.63	1.04	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.04	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.04	
Tetrachloroethene	6.3	1.0	0.22	1.04	
Toluene	2.5	1.0	0.54	1.04	
1,2,3-Trichlorobenzene	ND	2.1	0.95	1.04	
1,2,4-Trichlorobenzene	ND	2.1	0.32	1.04	
1,1,1-Trichloroethane	ND	1.0	0.23	1.04	
1,1,2-Trichloroethane	ND	1.0	0.99	1.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.37	1.04	
Trichloroethene	1.7	2.1	0.31	1.04	J
Trichlorofluoromethane	ND	10	0.39	1.04	
1,2,3-Trichloropropane	ND	2.1	0.71	1.04	
1,2,4-Trimethylbenzene	ND	2.1	0.61	1.04	
1,3,5-Trimethylbenzene	ND	2.1	0.57	1.04	
Vinyl Acetate	ND	10	4.9	1.04	
Vinyl Chloride	ND	1.0	0.52	1.04	
p/m-Xylene	0.66	2.1	0.28	1.04	J
o-Xylene	ND	1.0	0.58	1.04	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.31	1.04	
Tert-Butyl Alcohol (TBA)	ND	21	5.4	1.04	
Diisopropyl Ether (DIPE)	ND	1.0	0.50	1.04	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.53	1.04	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.37	1.04	
Ethanol	ND	520	87	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 18 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	130	71-155	
Toluene-d8	102	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-06-40	**13-06-1493-10-C**	**06/21/13 12:10**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 20:09**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	12	45	5.6	0.904	J
Benzene	0.14	0.90	0.12	0.904	J
Bromobenzene	ND	0.90	0.19	0.904	
Bromochloromethane	ND	1.8	0.62	0.904	
Bromodichloromethane	ND	0.90	0.21	0.904	
Bromoform	ND	4.5	0.72	0.904	
Bromomethane	ND	18	8.5	0.904	
2-Butanone	ND	18	3.4	0.904	
n-Butylbenzene	ND	0.90	0.14	0.904	
sec-Butylbenzene	ND	0.90	0.52	0.904	
tert-Butylbenzene	ND	0.90	0.14	0.904	
Carbon Disulfide	ND	9.0	0.28	0.904	
Carbon Tetrachloride	ND	0.90	0.26	0.904	
Chlorobenzene	ND	0.90	0.20	0.904	
Chloroethane	ND	1.8	1.7	0.904	
Chloroform	ND	0.90	0.22	0.904	
Chloromethane	ND	18	0.62	0.904	
2-Chlorotoluene	ND	0.90	0.21	0.904	
4-Chlorotoluene	ND	0.90	0.19	0.904	
Dibromochloromethane	ND	1.8	0.52	0.904	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	0.904	
1,2-Dibromoethane	ND	0.90	0.23	0.904	
Dibromomethane	ND	0.90	0.70	0.904	
1,2-Dichlorobenzene	ND	0.90	0.21	0.904	
1,3-Dichlorobenzene	ND	0.90	0.16	0.904	
1,4-Dichlorobenzene	ND	0.90	0.20	0.904	
Dichlorodifluoromethane	ND	1.8	0.40	0.904	
1,1-Dichloroethane	ND	0.90	0.90	0.904	
1,2-Dichloroethane	ND	0.90	0.28	0.904	
1,1-Dichloroethene	ND	0.90	0.31	0.904	
c-1,2-Dichloroethene	ND	0.90	0.25	0.904	
t-1,2-Dichloroethene	ND	0.90	0.46	0.904	
1,2-Dichloropropane	ND	0.90	0.40	0.904	
1,3-Dichloropropane	ND	0.90	0.23	0.904	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.5	0.30	0.904	
1,1-Dichloropropene	ND	1.8	0.30	0.904	
c-1,3-Dichloropropene	ND	0.90	0.23	0.904	
t-1,3-Dichloropropene	ND	1.8	0.55	0.904	
Ethylbenzene	ND	0.90	0.14	0.904	
2-Hexanone	ND	18	1.6	0.904	
Isopropylbenzene	ND	0.90	0.49	0.904	
p-Isopropyltoluene	ND	0.90	0.57	0.904	
Methylene Chloride	ND	9.0	1.2	0.904	
4-Methyl-2-Pentanone	ND	18	3.9	0.904	
Naphthalene	ND	9.0	0.74	0.904	
n-Propylbenzene	ND	1.8	0.45	0.904	
Styrene	ND	0.90	0.55	0.904	
1,1,1,2-Tetrachloroethane	ND	0.90	0.22	0.904	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	0.904	
Tetrachloroethene	1.5	0.90	0.19	0.904	
Toluene	ND	0.90	0.47	0.904	
1,2,3-Trichlorobenzene	ND	1.8	0.83	0.904	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.904	
1,1,1-Trichloroethane	ND	0.90	0.20	0.904	
1,1,2-Trichloroethane	ND	0.90	0.86	0.904	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.0	0.32	0.904	
Trichloroethene	1.8	1.8	0.27	0.904	
Trichlorofluoromethane	ND	9.0	0.34	0.904	
1,2,3-Trichloropropane	ND	1.8	0.62	0.904	
1,2,4-Trimethylbenzene	ND	1.8	0.53	0.904	
1,3,5-Trimethylbenzene	ND	1.8	0.50	0.904	
Vinyl Acetate	ND	9.0	4.3	0.904	
Vinyl Chloride	ND	0.90	0.45	0.904	
p/m-Xylene	ND	1.8	0.24	0.904	
o-Xylene	ND	0.90	0.50	0.904	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.904	
Tert-Butyl Alcohol (TBA)	ND	18	4.7	0.904	
Diisopropyl Ether (DIPE)	ND	0.90	0.44	0.904	
Ethyl-t-Butyl Ether (ETBE)	ND	0.90	0.46	0.904	
Tert-Amyl-Methyl Ether (TAME)	ND	0.90	0.32	0.904	
Ethanol	ND	450	76	0.904	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 21 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-005	**13-06-1493-11-C**	**06/21/13 08:20**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 20:36**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	59	54	6.8	1.09	
Benzene	1.0	1.1	0.14	1.09	J
Bromobenzene	ND	1.1	0.23	1.09	
Bromochloromethane	ND	2.2	0.75	1.09	
Bromodichloromethane	ND	1.1	0.25	1.09	
Bromoform	ND	5.4	0.87	1.09	
Bromomethane	ND	22	10	1.09	
2-Butanone	9.8	22	4.1	1.09	J
n-Butylbenzene	ND	1.1	0.17	1.09	
sec-Butylbenzene	ND	1.1	0.63	1.09	
tert-Butylbenzene	ND	1.1	0.16	1.09	
Carbon Disulfide	ND	11	0.33	1.09	
Carbon Tetrachloride	ND	1.1	0.31	1.09	
Chlorobenzene	ND	1.1	0.24	1.09	
Chloroethane	ND	2.2	2.0	1.09	
Chloroform	ND	1.1	0.26	1.09	
Chloromethane	ND	22	0.75	1.09	
2-Chlorotoluene	ND	1.1	0.25	1.09	
4-Chlorotoluene	ND	1.1	0.23	1.09	
Dibromochloromethane	ND	2.2	0.62	1.09	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.09	
1,2-Dibromoethane	ND	1.1	0.28	1.09	
Dibromomethane	ND	1.1	0.84	1.09	
1,2-Dichlorobenzene	ND	1.1	0.25	1.09	
1,3-Dichlorobenzene	ND	1.1	0.19	1.09	
1,4-Dichlorobenzene	ND	1.1	0.24	1.09	
Dichlorodifluoromethane	ND	2.2	0.48	1.09	
1,1-Dichloroethane	ND	1.1	1.1	1.09	
1,2-Dichloroethane	ND	1.1	0.34	1.09	
1,1-Dichloroethene	ND	1.1	0.38	1.09	
c-1,2-Dichloroethene	ND	1.1	0.30	1.09	
t-1,2-Dichloroethene	ND	1.1	0.55	1.09	
1,2-Dichloropropane	ND	1.1	0.48	1.09	
1,3-Dichloropropane	ND	1.1	0.28	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.09	
1,1-Dichloropropene	ND	2.2	0.36	1.09	
c-1,3-Dichloropropene	ND	1.1	0.28	1.09	
t-1,3-Dichloropropene	ND	2.2	0.66	1.09	
Ethylbenzene	ND	1.1	0.17	1.09	
2-Hexanone	ND	22	1.9	1.09	
Isopropylbenzene	ND	1.1	0.60	1.09	
p-Isopropyltoluene	ND	1.1	0.69	1.09	
Methylene Chloride	ND	11	1.5	1.09	
4-Methyl-2-Pentanone	ND	22	4.7	1.09	
Naphthalene	ND	11	0.89	1.09	
n-Propylbenzene	ND	2.2	0.55	1.09	
Styrene	ND	1.1	0.66	1.09	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.09	
1,1,2,2-Tetrachloroethane	ND	2.2	0.38	1.09	
Tetrachloroethene	ND	1.1	0.23	1.09	
Toluene	0.58	1.1	0.56	1.09	J
1,2,3-Trichlorobenzene	ND	2.2	1.0	1.09	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.09	
1,1,1-Trichloroethane	ND	1.1	0.25	1.09	
1,1,2-Trichloroethane	ND	1.1	1.0	1.09	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.09	
Trichloroethene	ND	2.2	0.33	1.09	
Trichlorofluoromethane	ND	11	0.41	1.09	
1,2,3-Trichloropropane	ND	2.2	0.75	1.09	
1,2,4-Trimethylbenzene	ND	2.2	0.64	1.09	
1,3,5-Trimethylbenzene	ND	2.2	0.60	1.09	
Vinyl Acetate	ND	11	5.2	1.09	
Vinyl Chloride	ND	1.1	0.55	1.09	
p/m-Xylene	ND	2.2	0.29	1.09	
o-Xylene	ND	1.1	0.61	1.09	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.09	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.09	
Diisopropyl Ether (DIPE)	ND	1.1	0.53	1.09	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.09	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.09	
Ethanol	ND	540	91	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 24 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	128	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-010	**13-06-1493-12-C**	**06/21/13 08:31**	**Soil**	**GC/MS Q**	**06/21/13**	**06/22/13 21:02**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	27	54	6.8	1.09	J
Benzene	2.2	1.1	0.14	1.09	
Bromobenzene	ND	1.1	0.23	1.09	
Bromochloromethane	ND	2.2	0.75	1.09	
Bromodichloromethane	ND	1.1	0.25	1.09	
Bromoform	ND	5.4	0.87	1.09	
Bromomethane	ND	22	10	1.09	
2-Butanone	ND	22	4.1	1.09	
n-Butylbenzene	ND	1.1	0.17	1.09	
sec-Butylbenzene	ND	1.1	0.63	1.09	
tert-Butylbenzene	ND	1.1	0.16	1.09	
Carbon Disulfide	ND	11	0.33	1.09	
Carbon Tetrachloride	ND	1.1	0.31	1.09	
Chlorobenzene	ND	1.1	0.24	1.09	
Chloroethane	ND	2.2	2.0	1.09	
Chloroform	ND	1.1	0.26	1.09	
Chloromethane	ND	22	0.75	1.09	
2-Chlorotoluene	ND	1.1	0.25	1.09	
4-Chlorotoluene	ND	1.1	0.23	1.09	
Dibromochloromethane	ND	2.2	0.62	1.09	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.09	
1,2-Dibromoethane	ND	1.1	0.28	1.09	
Dibromomethane	ND	1.1	0.84	1.09	
1,2-Dichlorobenzene	ND	1.1	0.25	1.09	
1,3-Dichlorobenzene	ND	1.1	0.19	1.09	
1,4-Dichlorobenzene	ND	1.1	0.24	1.09	
Dichlorodifluoromethane	ND	2.2	0.48	1.09	
1,1-Dichloroethane	ND	1.1	1.1	1.09	
1,2-Dichloroethane	ND	1.1	0.34	1.09	
1,1-Dichloroethene	ND	1.1	0.38	1.09	
c-1,2-Dichloroethene	ND	1.1	0.30	1.09	
t-1,2-Dichloroethene	ND	1.1	0.55	1.09	
1,2-Dichloropropane	ND	1.1	0.48	1.09	
1,3-Dichloropropane	ND	1.1	0.28	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.09	
1,1-Dichloropropene	ND	2.2	0.36	1.09	
c-1,3-Dichloropropene	ND	1.1	0.28	1.09	
t-1,3-Dichloropropene	ND	2.2	0.66	1.09	
Ethylbenzene	1.2	1.1	0.17	1.09	
2-Hexanone	ND	22	1.9	1.09	
Isopropylbenzene	ND	1.1	0.60	1.09	
p-Isopropyltoluene	ND	1.1	0.69	1.09	
Methylene Chloride	ND	11	1.5	1.09	
4-Methyl-2-Pentanone	ND	22	4.7	1.09	
Naphthalene	ND	11	0.89	1.09	
n-Propylbenzene	ND	2.2	0.55	1.09	
Styrene	ND	1.1	0.66	1.09	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.09	
1,1,2,2-Tetrachloroethane	ND	2.2	0.38	1.09	
Tetrachloroethene	ND	1.1	0.23	1.09	
Toluene	2.4	1.1	0.56	1.09	
1,2,3-Trichlorobenzene	ND	2.2	1.0	1.09	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.09	
1,1,1-Trichloroethane	ND	1.1	0.25	1.09	
1,1,2-Trichloroethane	ND	1.1	1.0	1.09	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.09	
Trichloroethene	ND	2.2	0.33	1.09	
Trichlorofluoromethane	ND	11	0.41	1.09	
1,2,3-Trichloropropane	ND	2.2	0.75	1.09	
1,2,4-Trimethylbenzene	ND	2.2	0.64	1.09	
1,3,5-Trimethylbenzene	ND	2.2	0.60	1.09	
Vinyl Acetate	ND	11	5.2	1.09	
Vinyl Chloride	ND	1.1	0.55	1.09	
p/m-Xylene	0.50	2.2	0.29	1.09	J
o-Xylene	ND	1.1	0.61	1.09	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.09	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.09	
Diisopropyl Ether (DIPE)	ND	1.1	0.53	1.09	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.09	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.09	
Ethanol	ND	540	91	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 27 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	132	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-020	**13-06-1493-13-C**	**06/21/13 09:12**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 14:27**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	33	48	6.0	0.967	J
Benzene	2.8	0.97	0.13	0.967	
Bromobenzene	ND	0.97	0.20	0.967	
Bromochloromethane	ND	1.9	0.67	0.967	
Bromodichloromethane	ND	0.97	0.23	0.967	
Bromoform	ND	4.8	0.77	0.967	
Bromomethane	ND	19	9.1	0.967	
2-Butanone	5.1	19	3.6	0.967	J
n-Butylbenzene	ND	0.97	0.15	0.967	
sec-Butylbenzene	ND	0.97	0.56	0.967	
tert-Butylbenzene	ND	0.97	0.15	0.967	
Carbon Disulfide	0.33	9.7	0.30	0.967	J
Carbon Tetrachloride	ND	0.97	0.27	0.967	
Chlorobenzene	ND	0.97	0.22	0.967	
Chloroethane	ND	1.9	1.8	0.967	
Chloroform	ND	0.97	0.23	0.967	
Chloromethane	ND	19	0.67	0.967	
2-Chlorotoluene	ND	0.97	0.22	0.967	
4-Chlorotoluene	ND	0.97	0.21	0.967	
Dibromochloromethane	ND	1.9	0.55	0.967	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.967	
1,2-Dibromoethane	ND	0.97	0.25	0.967	
Dibromomethane	ND	0.97	0.75	0.967	
1,2-Dichlorobenzene	ND	0.97	0.22	0.967	
1,3-Dichlorobenzene	ND	0.97	0.17	0.967	
1,4-Dichlorobenzene	ND	0.97	0.21	0.967	
Dichlorodifluoromethane	ND	1.9	0.43	0.967	
1,1-Dichloroethane	ND	0.97	0.97	0.967	
1,2-Dichloroethane	ND	0.97	0.30	0.967	
1,1-Dichloroethene	ND	0.97	0.33	0.967	
c-1,2-Dichloroethene	ND	0.97	0.27	0.967	
t-1,2-Dichloroethene	ND	0.97	0.49	0.967	
1,2-Dichloropropane	ND	0.97	0.42	0.967	
1,3-Dichloropropane	ND	0.97	0.24	0.967	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.32	0.967	
1,1-Dichloropropene	ND	1.9	0.32	0.967	
c-1,3-Dichloropropene	ND	0.97	0.25	0.967	
t-1,3-Dichloropropene	ND	1.9	0.59	0.967	
Ethylbenzene	1.4	0.97	0.15	0.967	
2-Hexanone	ND	19	1.7	0.967	
Isopropylbenzene	ND	0.97	0.53	0.967	
p-Isopropyltoluene	ND	0.97	0.61	0.967	
Methylene Chloride	ND	9.7	1.3	0.967	
4-Methyl-2-Pentanone	ND	19	4.2	0.967	
Naphthalene	ND	9.7	0.79	0.967	
n-Propylbenzene	ND	1.9	0.49	0.967	
Styrene	ND	0.97	0.58	0.967	
1,1,1,2-Tetrachloroethane	ND	0.97	0.23	0.967	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.967	
Tetrachloroethene	ND	0.97	0.20	0.967	
Toluene	2.7	0.97	0.50	0.967	
1,2,3-Trichlorobenzene	ND	1.9	0.88	0.967	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.967	
1,1,1-Trichloroethane	ND	0.97	0.22	0.967	
1,1,2-Trichloroethane	ND	0.97	0.92	0.967	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	0.34	0.967	
Trichloroethene	ND	1.9	0.29	0.967	
Trichlorofluoromethane	ND	9.7	0.36	0.967	
1,2,3-Trichloropropane	ND	1.9	0.66	0.967	
1,2,4-Trimethylbenzene	ND	1.9	0.57	0.967	
1,3,5-Trimethylbenzene	ND	1.9	0.53	0.967	
Vinyl Acetate	ND	9.7	4.6	0.967	
Vinyl Chloride	ND	0.97	0.49	0.967	
p/m-Xylene	0.77	1.9	0.26	0.967	J
o-Xylene	ND	0.97	0.54	0.967	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.29	0.967	
Tert-Butyl Alcohol (TBA)	ND	19	5.0	0.967	
Diisopropyl Ether (DIPE)	ND	0.97	0.47	0.967	
Ethyl-t-Butyl Ether (ETBE)	ND	0.97	0.49	0.967	
Tert-Amyl-Methyl Ether (TAME)	ND	0.97	0.34	0.967	
Ethanol	ND	480	81	0.967	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 30 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-030	**13-06-1493-14-D**	**06/21/13 09:31**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 17:32**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	52	6.4	1.03	J
Benzene	2.2	1.0	0.13	1.03	
Bromobenzene	ND	1.0	0.22	1.03	
Bromochloromethane	ND	2.1	0.71	1.03	
Bromodichloromethane	ND	1.0	0.24	1.03	
Bromoform	ND	5.2	0.82	1.03	
Bromomethane	ND	21	9.7	1.03	
2-Butanone	4.3	21	3.9	1.03	J
n-Butylbenzene	ND	1.0	0.16	1.03	
sec-Butylbenzene	ND	1.0	0.60	1.03	
tert-Butylbenzene	ND	1.0	0.16	1.03	
Carbon Disulfide	ND	10	0.31	1.03	
Carbon Tetrachloride	ND	1.0	0.29	1.03	
Chlorobenzene	ND	1.0	0.23	1.03	
Chloroethane	ND	2.1	1.9	1.03	
Chloroform	ND	1.0	0.25	1.03	
Chloromethane	ND	21	0.71	1.03	
2-Chlorotoluene	ND	1.0	0.24	1.03	
4-Chlorotoluene	ND	1.0	0.22	1.03	
Dibromochloromethane	ND	2.1	0.59	1.03	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.03	
1,2-Dibromoethane	ND	1.0	0.26	1.03	
Dibromomethane	ND	1.0	0.80	1.03	
1,2-Dichlorobenzene	ND	1.0	0.24	1.03	
1,3-Dichlorobenzene	ND	1.0	0.18	1.03	
1,4-Dichlorobenzene	ND	1.0	0.23	1.03	
Dichlorodifluoromethane	ND	2.1	0.46	1.03	
1,1-Dichloroethane	ND	1.0	1.0	1.03	
1,2-Dichloroethane	ND	1.0	0.32	1.03	
1,1-Dichloroethene	ND	1.0	0.36	1.03	
c-1,2-Dichloroethene	ND	1.0	0.29	1.03	
t-1,2-Dichloroethene	ND	1.0	0.52	1.03	
1,2-Dichloropropane	ND	1.0	0.45	1.03	
1,3-Dichloropropane	ND	1.0	0.26	1.03	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.34	1.03	
1,1-Dichloropropene	ND	2.1	0.34	1.03	
c-1,3-Dichloropropene	ND	1.0	0.26	1.03	
t-1,3-Dichloropropene	ND	2.1	0.62	1.03	
Ethylbenzene	0.25	1.0	0.16	1.03	J
2-Hexanone	ND	21	1.8	1.03	
Isopropylbenzene	ND	1.0	0.56	1.03	
p-Isopropyltoluene	ND	1.0	0.65	1.03	
Methylene Chloride	ND	10	1.4	1.03	
4-Methyl-2-Pentanone	ND	21	4.5	1.03	
Naphthalene	ND	10	0.84	1.03	
n-Propylbenzene	ND	2.1	0.52	1.03	
Styrene	ND	1.0	0.62	1.03	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.03	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.03	
Tetrachloroethene	ND	1.0	0.22	1.03	
Toluene	3.0	1.0	0.53	1.03	
1,2,3-Trichlorobenzene	ND	2.1	0.94	1.03	
1,2,4-Trichlorobenzene	ND	2.1	0.32	1.03	
1,1,1-Trichloroethane	ND	1.0	0.23	1.03	
1,1,2-Trichloroethane	ND	1.0	0.98	1.03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.03	
Trichloroethene	ND	2.1	0.31	1.03	
Trichlorofluoromethane	ND	10	0.39	1.03	
1,2,3-Trichloropropane	ND	2.1	0.71	1.03	
1,2,4-Trimethylbenzene	ND	2.1	0.60	1.03	
1,3,5-Trimethylbenzene	ND	2.1	0.57	1.03	
Vinyl Acetate	ND	10	4.9	1.03	
Vinyl Chloride	ND	1.0	0.52	1.03	
p/m-Xylene	1.1	2.1	0.28	1.03	J
o-Xylene	ND	1.0	0.57	1.03	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.30	1.03	
Tert-Butyl Alcohol (TBA)	ND	21	5.3	1.03	
Diisopropyl Ether (DIPE)	ND	1.0	0.50	1.03	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.52	1.03	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.36	1.03	
Ethanol	ND	520	86	1.03	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 33 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	114	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-040	**13-06-1493-15-C**	**06/21/13 09:53**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 15:20**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	42	54	6.7	1.07	J
Benzene	1.5	1.1	0.14	1.07	
Bromobenzene	ND	1.1	0.22	1.07	
Bromochloromethane	ND	2.1	0.74	1.07	
Bromodichloromethane	ND	1.1	0.25	1.07	
Bromoform	ND	5.4	0.85	1.07	
Bromomethane	ND	21	10	1.07	
2-Butanone	5.7	21	4.0	1.07	J
n-Butylbenzene	0.28	1.1	0.17	1.07	J
sec-Butylbenzene	ND	1.1	0.62	1.07	
tert-Butylbenzene	ND	1.1	0.16	1.07	
Carbon Disulfide	ND	11	0.33	1.07	
Carbon Tetrachloride	ND	1.1	0.30	1.07	
Chlorobenzene	ND	1.1	0.24	1.07	
Chloroethane	ND	2.1	2.0	1.07	
Chloroform	ND	1.1	0.26	1.07	
Chloromethane	ND	21	0.74	1.07	
2-Chlorotoluene	ND	1.1	0.25	1.07	
4-Chlorotoluene	ND	1.1	0.23	1.07	
Dibromochloromethane	ND	2.1	0.61	1.07	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.07	
1,2-Dibromoethane	ND	1.1	0.27	1.07	
Dibromomethane	ND	1.1	0.83	1.07	
1,2-Dichlorobenzene	ND	1.1	0.24	1.07	
1,3-Dichlorobenzene	ND	1.1	0.19	1.07	
1,4-Dichlorobenzene	ND	1.1	0.24	1.07	
Dichlorodifluoromethane	ND	2.1	0.47	1.07	
1,1-Dichloroethane	ND	1.1	1.1	1.07	
1,2-Dichloroethane	ND	1.1	0.34	1.07	
1,1-Dichloroethene	ND	1.1	0.37	1.07	
c-1,2-Dichloroethene	ND	1.1	0.30	1.07	
t-1,2-Dichloroethene	ND	1.1	0.54	1.07	
1,2-Dichloropropane	ND	1.1	0.47	1.07	
1,3-Dichloropropane	ND	1.1	0.27	1.07	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.35	1.07	
1,1-Dichloropropene	ND	2.1	0.35	1.07	
c-1,3-Dichloropropene	ND	1.1	0.27	1.07	
t-1,3-Dichloropropene	ND	2.1	0.65	1.07	
Ethylbenzene	4.7	1.1	0.16	1.07	
2-Hexanone	ND	21	1.9	1.07	
Isopropylbenzene	ND	1.1	0.58	1.07	
p-Isopropyltoluene	ND	1.1	0.67	1.07	
Methylene Chloride	ND	11	1.4	1.07	
4-Methyl-2-Pentanone	ND	21	4.6	1.07	
Naphthalene	ND	11	0.87	1.07	
n-Propylbenzene	0.65	2.1	0.54	1.07	J
Styrene	ND	1.1	0.65	1.07	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.07	
1,1,2,2-Tetrachloroethane	ND	2.1	0.37	1.07	
Tetrachloroethene	ND	1.1	0.22	1.07	
Toluene	4.6	1.1	0.55	1.07	
1,2,3-Trichlorobenzene	ND	2.1	0.98	1.07	
1,2,4-Trichlorobenzene	ND	2.1	0.33	1.07	
1,1,1-Trichloroethane	ND	1.1	0.24	1.07	
1,1,2-Trichloroethane	ND	1.1	1.0	1.07	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.07	
Trichloroethene	ND	2.1	0.32	1.07	
Trichlorofluoromethane	ND	11	0.40	1.07	
1,2,3-Trichloropropane	ND	2.1	0.73	1.07	
1,2,4-Trimethylbenzene	ND	2.1	0.63	1.07	
1,3,5-Trimethylbenzene	ND	2.1	0.59	1.07	
Vinyl Acetate	ND	11	5.1	1.07	
Vinyl Chloride	ND	1.1	0.54	1.07	
p/m-Xylene	1.0	2.1	0.29	1.07	J
o-Xylene	ND	1.1	0.60	1.07	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.32	1.07	
Tert-Butyl Alcohol (TBA)	7.0	21	5.5	1.07	J
Diisopropyl Ether (DIPE)	ND	1.1	0.52	1.07	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.54	1.07	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.07	
Ethanol	ND	540	89	1.07	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 36 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-060	**13-06-1493-16-C**	**06/21/13 10:31**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 15:46**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	13	46	5.8	0.923	J
Benzene	2.0	0.92	0.12	0.923	
Bromobenzene	ND	0.92	0.19	0.923	
Bromochloromethane	ND	1.8	0.64	0.923	
Bromodichloromethane	ND	0.92	0.21	0.923	
Bromoform	ND	4.6	0.73	0.923	
Bromomethane	ND	18	8.7	0.923	
2-Butanone	ND	18	3.5	0.923	
n-Butylbenzene	0.20	0.92	0.14	0.923	J
sec-Butylbenzene	ND	0.92	0.53	0.923	
tert-Butylbenzene	ND	0.92	0.14	0.923	
Carbon Disulfide	0.32	9.2	0.28	0.923	J
Carbon Tetrachloride	ND	0.92	0.26	0.923	
Chlorobenzene	ND	0.92	0.21	0.923	
Chloroethane	ND	1.8	1.7	0.923	
Chloroform	ND	0.92	0.22	0.923	
Chloromethane	ND	18	0.64	0.923	
2-Chlorotoluene	ND	0.92	0.21	0.923	
4-Chlorotoluene	ND	0.92	0.20	0.923	
Dibromochloromethane	ND	1.8	0.53	0.923	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.923	
1,2-Dibromoethane	ND	0.92	0.24	0.923	
Dibromomethane	ND	0.92	0.72	0.923	
1,2-Dichlorobenzene	ND	0.92	0.21	0.923	
1,3-Dichlorobenzene	ND	0.92	0.16	0.923	
1,4-Dichlorobenzene	ND	0.92	0.20	0.923	
Dichlorodifluoromethane	ND	1.8	0.41	0.923	
1,1-Dichloroethane	ND	0.92	0.92	0.923	
1,2-Dichloroethane	ND	0.92	0.29	0.923	
1,1-Dichloroethene	ND	0.92	0.32	0.923	
c-1,2-Dichloroethene	ND	0.92	0.26	0.923	
t-1,2-Dichloroethene	ND	0.92	0.47	0.923	
1,2-Dichloropropane	ND	0.92	0.40	0.923	
1,3-Dichloropropane	ND	0.92	0.23	0.923	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.923	
1,1-Dichloropropene	ND	1.8	0.30	0.923	
c-1,3-Dichloropropene	ND	0.92	0.23	0.923	
t-1,3-Dichloropropene	ND	1.8	0.56	0.923	
Ethylbenzene	3.1	0.92	0.14	0.923	
2-Hexanone	ND	18	1.6	0.923	
Isopropylbenzene	ND	0.92	0.50	0.923	
p-Isopropyltoluene	ND	0.92	0.58	0.923	
Methylene Chloride	ND	9.2	1.2	0.923	
4-Methyl-2-Pentanone	ND	18	4.0	0.923	
Naphthalene	ND	9.2	0.75	0.923	
n-Propylbenzene	ND	1.8	0.46	0.923	
Styrene	ND	0.92	0.56	0.923	
1,1,1,2-Tetrachloroethane	ND	0.92	0.22	0.923	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.923	
Tetrachloroethene	ND	0.92	0.19	0.923	
Toluene	4.6	0.92	0.48	0.923	
1,2,3-Trichlorobenzene	ND	1.8	0.84	0.923	
1,2,4-Trichlorobenzene	ND	1.8	0.29	0.923	
1,1,1-Trichloroethane	ND	0.92	0.21	0.923	
1,1,2-Trichloroethane	ND	0.92	0.88	0.923	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	0.32	0.923	
Trichloroethene	ND	1.8	0.28	0.923	
Trichlorofluoromethane	ND	9.2	0.35	0.923	
1,2,3-Trichloropropane	ND	1.8	0.63	0.923	
1,2,4-Trimethylbenzene	0.60	1.8	0.54	0.923	J
1,3,5-Trimethylbenzene	ND	1.8	0.51	0.923	
Vinyl Acetate	ND	9.2	4.4	0.923	
Vinyl Chloride	ND	0.92	0.46	0.923	
p/m-Xylene	1.5	1.8	0.25	0.923	J
o-Xylene	0.65	0.92	0.51	0.923	J
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.923	
Tert-Butyl Alcohol (TBA)	8.4	18	4.8	0.923	J
Diisopropyl Ether (DIPE)	ND	0.92	0.45	0.923	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	0.47	0.923	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	0.33	0.923	
Ethanol	ND	460	77	0.923	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 39 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	113	79-133	
1,2-Dichloroethane-d4	127	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-090	**13-06-1493-17-C**	**06/21/13 11:20**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 16:12**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	40	43	5.3	0.855	J
Benzene	1.9	0.86	0.11	0.855	
Bromobenzene	ND	0.86	0.18	0.855	
Bromochloromethane	ND	1.7	0.59	0.855	
Bromodichloromethane	ND	0.86	0.20	0.855	
Bromoform	ND	4.3	0.68	0.855	
Bromomethane	ND	17	8.1	0.855	
2-Butanone	5.6	17	3.2	0.855	J
n-Butylbenzene	ND	0.86	0.13	0.855	
sec-Butylbenzene	ND	0.86	0.49	0.855	
tert-Butylbenzene	ND	0.86	0.13	0.855	
Carbon Disulfide	ND	8.6	0.26	0.855	
Carbon Tetrachloride	ND	0.86	0.24	0.855	
Chlorobenzene	ND	0.86	0.19	0.855	
Chloroethane	ND	1.7	1.6	0.855	
Chloroform	ND	0.86	0.20	0.855	
Chloromethane	ND	17	0.59	0.855	
2-Chlorotoluene	ND	0.86	0.20	0.855	
4-Chlorotoluene	ND	0.86	0.18	0.855	
Dibromochloromethane	ND	1.7	0.49	0.855	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.5	0.855	
1,2-Dibromoethane	ND	0.86	0.22	0.855	
Dibromomethane	ND	0.86	0.66	0.855	
1,2-Dichlorobenzene	ND	0.86	0.20	0.855	
1,3-Dichlorobenzene	ND	0.86	0.15	0.855	
1,4-Dichlorobenzene	ND	0.86	0.19	0.855	
Dichlorodifluoromethane	ND	1.7	0.38	0.855	
1,1-Dichloroethane	ND	0.86	0.85	0.855	
1,2-Dichloroethane	ND	0.86	0.27	0.855	
1,1-Dichloroethene	ND	0.86	0.30	0.855	
c-1,2-Dichloroethene	ND	0.86	0.24	0.855	
t-1,2-Dichloroethene	ND	0.86	0.43	0.855	
1,2-Dichloropropane	ND	0.86	0.37	0.855	
1,3-Dichloropropane	ND	0.86	0.22	0.855	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.3	0.28	0.855	
1,1-Dichloropropene	ND	1.7	0.28	0.855	
c-1,3-Dichloropropene	ND	0.86	0.22	0.855	
t-1,3-Dichloropropene	ND	1.7	0.52	0.855	
Ethylbenzene	0.22	0.86	0.13	0.855	J
2-Hexanone	ND	17	1.5	0.855	
Isopropylbenzene	ND	0.86	0.47	0.855	
p-Isopropyltoluene	ND	0.86	0.54	0.855	
Methylene Chloride	ND	8.6	1.1	0.855	
4-Methyl-2-Pentanone	ND	17	3.7	0.855	
Naphthalene	ND	8.6	0.70	0.855	
n-Propylbenzene	ND	1.7	0.43	0.855	
Styrene	ND	0.86	0.52	0.855	
1,1,1,2-Tetrachloroethane	ND	0.86	0.21	0.855	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	0.855	
Tetrachloroethene	ND	0.86	0.18	0.855	
Toluene	1.7	0.86	0.44	0.855	
1,2,3-Trichlorobenzene	ND	1.7	0.78	0.855	
1,2,4-Trichlorobenzene	ND	1.7	0.27	0.855	
1,1,1-Trichloroethane	ND	0.86	0.19	0.855	
1,1,2-Trichloroethane	ND	0.86	0.81	0.855	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	0.30	0.855	
Trichloroethene	ND	1.7	0.26	0.855	
Trichlorofluoromethane	ND	8.6	0.32	0.855	
1,2,3-Trichloropropane	ND	1.7	0.59	0.855	
1,2,4-Trimethylbenzene	ND	1.7	0.50	0.855	
1,3,5-Trimethylbenzene	ND	1.7	0.47	0.855	
Vinyl Acetate	ND	8.6	4.1	0.855	
Vinyl Chloride	ND	0.86	0.43	0.855	
p/m-Xylene	0.61	1.7	0.23	0.855	J
o-Xylene	ND	0.86	0.48	0.855	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.855	
Tert-Butyl Alcohol (TBA)	9.1	17	4.4	0.855	J
Diisopropyl Ether (DIPE)	ND	0.86	0.41	0.855	
Ethyl-t-Butyl Ether (ETBE)	ND	0.86	0.43	0.855	
Tert-Amyl-Methyl Ether (TAME)	ND	0.86	0.30	0.855	
Ethanol	ND	430	71	0.855	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 42 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-110	**13-06-1493-18-C**	**06/21/13 12:52**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 16:39**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	30	47	5.9	0.947	J
Benzene	1.9	0.95	0.12	0.947	
Bromobenzene	ND	0.95	0.20	0.947	
Bromochloromethane	ND	1.9	0.65	0.947	
Bromodichloromethane	ND	0.95	0.22	0.947	
Bromoform	ND	4.7	0.75	0.947	
Bromomethane	ND	19	8.9	0.947	
2-Butanone	4.1	19	3.6	0.947	J
n-Butylbenzene	0.26	0.95	0.15	0.947	J
sec-Butylbenzene	ND	0.95	0.55	0.947	
tert-Butylbenzene	ND	0.95	0.14	0.947	
Carbon Disulfide	ND	9.5	0.29	0.947	
Carbon Tetrachloride	ND	0.95	0.27	0.947	
Chlorobenzene	ND	0.95	0.21	0.947	
Chloroethane	ND	1.9	1.8	0.947	
Chloroform	ND	0.95	0.23	0.947	
Chloromethane	ND	19	0.65	0.947	
2-Chlorotoluene	ND	0.95	0.22	0.947	
4-Chlorotoluene	ND	0.95	0.20	0.947	
Dibromochloromethane	ND	1.9	0.54	0.947	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.6	0.947	
1,2-Dibromoethane	ND	0.95	0.24	0.947	
Dibromomethane	ND	0.95	0.73	0.947	
1,2-Dichlorobenzene	ND	0.95	0.22	0.947	
1,3-Dichlorobenzene	ND	0.95	0.17	0.947	
1,4-Dichlorobenzene	ND	0.95	0.21	0.947	
Dichlorodifluoromethane	ND	1.9	0.42	0.947	
1,1-Dichloroethane	ND	0.95	0.95	0.947	
1,2-Dichloroethane	ND	0.95	0.30	0.947	
1,1-Dichloroethene	ND	0.95	0.33	0.947	
c-1,2-Dichloroethene	ND	0.95	0.26	0.947	
t-1,2-Dichloroethene	ND	0.95	0.48	0.947	
1,2-Dichloropropane	ND	0.95	0.41	0.947	
1,3-Dichloropropane	ND	0.95	0.24	0.947	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.7	0.31	0.947	
1,1-Dichloropropene	ND	1.9	0.31	0.947	
c-1,3-Dichloropropene	ND	0.95	0.24	0.947	
t-1,3-Dichloropropene	ND	1.9	0.57	0.947	
Ethylbenzene	3.8	0.95	0.14	0.947	
2-Hexanone	ND	19	1.7	0.947	
Isopropylbenzene	ND	0.95	0.52	0.947	
p-Isopropyltoluene	ND	0.95	0.60	0.947	
Methylene Chloride	ND	9.5	1.3	0.947	
4-Methyl-2-Pentanone	ND	19	4.1	0.947	
Naphthalene	ND	9.5	0.77	0.947	
n-Propylbenzene	0.55	1.9	0.48	0.947	J
Styrene	ND	0.95	0.57	0.947	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	0.947	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.947	
Tetrachloroethene	ND	0.95	0.20	0.947	
Toluene	4.0	0.95	0.49	0.947	
1,2,3-Trichlorobenzene	ND	1.9	0.86	0.947	
1,2,4-Trichlorobenzene	ND	1.9	0.29	0.947	
1,1,1-Trichloroethane	ND	0.95	0.21	0.947	
1,1,2-Trichloroethane	ND	0.95	0.90	0.947	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.33	0.947	
Trichloroethene	ND	1.9	0.28	0.947	
Trichlorofluoromethane	ND	9.5	0.36	0.947	
1,2,3-Trichloropropane	ND	1.9	0.65	0.947	
1,2,4-Trimethylbenzene	ND	1.9	0.56	0.947	
1,3,5-Trimethylbenzene	ND	1.9	0.52	0.947	
Vinyl Acetate	ND	9.5	4.5	0.947	
Vinyl Chloride	ND	0.95	0.48	0.947	
p/m-Xylene	0.92	1.9	0.25	0.947	J
o-Xylene	ND	0.95	0.53	0.947	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.947	
Tert-Butyl Alcohol (TBA)	ND	19	4.9	0.947	
Diisopropyl Ether (DIPE)	ND	0.95	0.46	0.947	
Ethyl-t-Butyl Ether (ETBE)	ND	0.95	0.48	0.947	
Tert-Amyl-Methyl Ether (TAME)	ND	0.95	0.33	0.947	
Ethanol	ND	470	79	0.947	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/21/13
Work Order:	13-06-1493
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-120	**13-06-1493-19-C**	**06/21/13 13:11**	**Soil**	**GC/MS PP**	**06/21/13**	**06/24/13 17:05**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	19	40	5.0	0.797	J
Benzene	1.6	0.80	0.10	0.797	
Bromobenzene	ND	0.80	0.17	0.797	
Bromochloromethane	ND	1.6	0.55	0.797	
Bromodichloromethane	ND	0.80	0.19	0.797	
Bromoform	ND	4.0	0.63	0.797	
Bromomethane	ND	16	7.5	0.797	
2-Butanone	3.1	16	3.0	0.797	J
n-Butylbenzene	0.29	0.80	0.12	0.797	J
sec-Butylbenzene	ND	0.80	0.46	0.797	
tert-Butylbenzene	ND	0.80	0.12	0.797	
Carbon Disulfide	0.30	8.0	0.24	0.797	J
Carbon Tetrachloride	ND	0.80	0.23	0.797	
Chlorobenzene	ND	0.80	0.18	0.797	
Chloroethane	ND	1.6	1.5	0.797	
Chloroform	ND	0.80	0.19	0.797	
Chloromethane	ND	16	0.55	0.797	
2-Chlorotoluene	ND	0.80	0.18	0.797	
4-Chlorotoluene	ND	0.80	0.17	0.797	
Dibromochloromethane	ND	1.6	0.45	0.797	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.797	
1,2-Dibromoethane	ND	0.80	0.20	0.797	
Dibromomethane	ND	0.80	0.62	0.797	
1,2-Dichlorobenzene	ND	0.80	0.18	0.797	
1,3-Dichlorobenzene	ND	0.80	0.14	0.797	
1,4-Dichlorobenzene	ND	0.80	0.18	0.797	
Dichlorodifluoromethane	ND	1.6	0.35	0.797	
1,1-Dichloroethane	ND	0.80	0.80	0.797	
1,2-Dichloroethane	ND	0.80	0.25	0.797	
1,1-Dichloroethene	ND	0.80	0.28	0.797	
c-1,2-Dichloroethene	ND	0.80	0.22	0.797	
t-1,2-Dichloroethene	ND	0.80	0.40	0.797	
1,2-Dichloropropane	ND	0.80	0.35	0.797	
1,3-Dichloropropane	ND	0.80	0.20	0.797	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.797	
1,1-Dichloropropene	ND	1.6	0.26	0.797	
c-1,3-Dichloropropene	ND	0.80	0.20	0.797	
t-1,3-Dichloropropene	ND	1.6	0.48	0.797	
Ethylbenzene	4.1	0.80	0.12	0.797	
2-Hexanone	ND	16	1.4	0.797	
Isopropylbenzene	ND	0.80	0.44	0.797	
p-Isopropyltoluene	ND	0.80	0.50	0.797	
Methylene Chloride	ND	8.0	1.1	0.797	
4-Methyl-2-Pentanone	ND	16	3.4	0.797	
Naphthalene	ND	8.0	0.65	0.797	
n-Propylbenzene	0.53	1.6	0.40	0.797	J
Styrene	ND	0.80	0.48	0.797	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	0.797	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	0.797	
Tetrachloroethene	ND	0.80	0.17	0.797	
Toluene	4.2	0.80	0.41	0.797	
1,2,3-Trichlorobenzene	ND	1.6	0.73	0.797	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.797	
1,1,1-Trichloroethane	ND	0.80	0.18	0.797	
1,1,2-Trichloroethane	ND	0.80	0.76	0.797	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	0.797	
Trichloroethene	ND	1.6	0.24	0.797	
Trichlorofluoromethane	ND	8.0	0.30	0.797	
1,2,3-Trichloropropane	ND	1.6	0.55	0.797	
1,2,4-Trimethylbenzene	ND	1.6	0.47	0.797	
1,3,5-Trimethylbenzene	ND	1.6	0.44	0.797	
Vinyl Acetate	ND	8.0	3.8	0.797	
Vinyl Chloride	ND	0.80	0.40	0.797	
p/m-Xylene	0.92	1.6	0.21	0.797	J
o-Xylene	ND	0.80	0.44	0.797	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	0.797	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.797	
Diisopropyl Ether (DIPE)	ND	0.80	0.38	0.797	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	0.40	0.797	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	0.28	0.797	
Ethanol	ND	400	67	0.797	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 48 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-250**	**N/A**	**Soil**	**GC/MS Q**	**06/22/13**	**06/22/13 11:18**	**130622L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/21/13
Work Order:	13-06-1493
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	99	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-252**	**N/A**	**Soil**	**GC/MS PP**	**06/24/13**	**06/24/13 13:15**	**130624L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 54 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-256**	**N/A**	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 18:05**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 57 of 57

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	94	79-133	
1,2-Dichloroethane-d4	104	71-155	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3550B
Method: EPA 8015B (M)
Page 1 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1591-1	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:10**	**130625S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	313.3	78	284.2	71	64-130	10	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3550B
Method: EPA 8015B (M)
Page 2 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1591-1	**Soil**	**GC 47**	**06/25/13**	**06/25/13 19:40**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	459.9	115	458.8	115	64-130	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-01-02	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:26**	**130626S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	6.740	27	6.600	26	50-115	2	0-20	3
Arsenic	3.707	25.00	25.33	87	27.14	94	75-125	7	0-20	
Barium	97.37	25.00	113.9	66	122.0	98	75-125	7	0-20	3
Beryllium	0.3197	25.00	24.19	95	25.51	101	75-125	5	0-20	
Cadmium	1.807	25.00	24.16	89	25.66	95	75-125	6	0-20	
Chromium	15.41	25.00	38.87	94	41.26	103	75-125	6	0-20	
Cobalt	9.259	25.00	30.43	85	32.49	93	75-125	7	0-20	
Copper	13.08	25.00	37.77	99	40.06	108	75-125	6	0-20	
Lead	3.232	25.00	25.36	89	26.84	94	75-125	6	0-20	
Molybdenum	2.873	25.00	24.70	87	25.88	92	75-125	5	0-20	
Nickel	20.91	25.00	43.75	91	47.26	105	75-125	8	0-20	
Selenium	ND	25.00	19.84	79	21.62	86	75-125	9	0-20	
Silver	ND	12.50	12.19	98	12.90	103	75-125	6	0-20	
Thallium	ND	25.00	14.35	57	17.92	72	75-125	22	0-20	3,4
Vanadium	34.75	25.00	57.34	90	60.42	103	75-125	5	0-20	
Zinc	40.59	25.00	62.68	88	66.86	105	75-125	6	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-01-02	**Soil**	**Mercury**	**06/26/13**	**06/26/13 14:07**	**130626S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7799	93	0.7501	90	71-137	4	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBV-06-05	**Soil**	**GC/MS EEE**	**06/24/13**	**06/27/13 23:06**	**130624S10**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.2170	108	0.1800	90	15-171	19	0-44	
2-Methylnaphthalene	ND	0.2000	0.2419	121	0.2041	102	28-160	17	0-39	
1-Methylnaphthalene	ND	0.2000	0.2259	113	0.1935	97	28-154	15	0-40	
Acenaphthylene	ND	0.2000	0.2154	108	0.1852	93	27-153	15	0-41	
Acenaphthene	ND	0.2000	0.2154	108	0.1898	95	33-147	13	0-38	
Fluorene	ND	0.2000	0.2262	113	0.1971	99	12-180	14	0-33	
Phenanthrene	ND	0.2000	0.1981	99	0.1744	87	26-152	13	0-29	
Anthracene	ND	0.2000	0.2038	102	0.1829	91	10-145	11	0-25	
Fluoranthene	ND	0.2000	0.2030	101	0.1878	94	20-158	8	0-31	
Pyrene	ND	0.2000	0.2169	108	0.2026	101	11-191	7	0-31	
Benzo (a) Anthracene	ND	0.2000	0.2160	108	0.1975	99	36-150	9	0-32	
Chrysene	ND	0.2000	0.2025	101	0.1870	94	21-189	8	0-29	
Benzo (k) Fluoranthene	ND	0.2000	0.2297	115	0.1992	100	40-148	14	0-32	
Benzo (b) Fluoranthene	ND	0.2000	0.2109	105	0.1982	99	39-147	6	0-28	
Benzo (a) Pyrene	ND	0.2000	0.2365	118	0.2208	110	36-168	7	0-26	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.2483	124	0.2182	109	22-160	13	0-26	
Dibenz (a,h) Anthracene	ND	0.2000	0.2017	101	0.1797	90	27-147	12	0-30	
Benzo (g,h,i) Perylene	ND	0.2000	0.1781	89	0.1635	82	10-152	9	0-28	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 1 of 15

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-420-475	**Soil**	**GC 47**	**06/25/13 18:37**	**130625B02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	327.0	82	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 2 of 15

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-422-557	**Soil**	**GC 47**	**06/25/13 18:22**	**130625B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	443.0	111	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 3 of 15

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4763	**Soil**	**GC 56**	**06/26/13**	**06/26/13 13:45**	**130626B01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	2.133	107	2.111	106	55-139	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-01-002-16970	**Soil**	**ICP 7300**	**06/26/13 17:41**	**130626L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.47	98	80-120	73-127	
Arsenic	25.00	24.47	98	80-120	73-127	
Barium	25.00	26.76	107	80-120	73-127	
Beryllium	25.00	25.03	100	80-120	73-127	
Cadmium	25.00	25.29	101	80-120	73-127	
Chromium	25.00	25.76	103	80-120	73-127	
Cobalt	25.00	26.92	108	80-120	73-127	
Copper	25.00	24.34	97	80-120	73-127	
Lead	25.00	24.14	97	80-120	73-127	
Molybdenum	25.00	25.41	102	80-120	73-127	
Nickel	25.00	26.86	107	80-120	73-127	
Selenium	25.00	23.50	94	80-120	73-127	
Silver	12.50	12.64	101	80-120	73-127	
Thallium	25.00	25.27	101	80-120	73-127	
Vanadium	25.00	24.81	99	80-120	73-127	
Zinc	25.00	26.64	107	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/21/13
1111 Broadway, FL 6TH		Work Order:	13-06-1493
Oakland, CA 94607-4172		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: KP Chatsworth / WR1767-02			Page 5 of 15

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-04-007-9388	**Soil**	**Mercury**	**06/26/13 13:53**	**130626L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8896	107	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-06-010-1717	**Soil**	**GC/MS EEE**	**06/27/13 22:20**	**130624L10**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.2108	105	64-118	55-127	
2-Methylnaphthalene	0.2000	0.2324	116	55-127	43-139	
1-Methylnaphthalene	0.2000	0.2138	107	57-129	45-141	
Acenaphthylene	0.2000	0.2106	105	36-132	20-148	
Acenaphthene	0.2000	0.2133	107	61-121	51-131	
Fluorene	0.2000	0.2217	111	56-128	44-140	
Phenanthrene	0.2000	0.1995	100	56-122	45-133	
Anthracene	0.2000	0.1824	91	11-119	0-137	
Fluoranthene	0.2000	0.2097	105	56-122	45-133	
Pyrene	0.2000	0.2252	113	57-129	45-141	
Benzo (a) Anthracene	0.2000	0.2156	108	49-127	36-140	
Chrysene	0.2000	0.2123	106	60-126	49-137	
Benzo (k) Fluoranthene	0.2000	0.2383	119	54-138	40-152	
Benzo (b) Fluoranthene	0.2000	0.2374	119	46-136	31-151	
Benzo (a) Pyrene	0.2000	0.2315	116	40-148	22-166	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.2440	122	43-163	23-183	
Dibenz (a,h) Anthracene	0.2000	0.2031	102	45-153	27-171	
Benzo (g,h,i) Perylene	0.2000	0.1859	93	38-140	21-157	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-250	**Soil**	**GC/MS Q**	**06/22/13**	**06/22/13 09:50**	**130622L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	85.53	171	86.35	173	80-120	73-127	1	0-20	X
Benzene	50.00	48.77	98	48.81	98	80-120	73-127	0	0-20	
Bromobenzene	50.00	49.98	100	49.19	98	80-120	73-127	2	0-20	
Bromochloromethane	50.00	50.18	100	46.68	93	80-120	73-127	7	0-20	
Bromodichloromethane	50.00	51.38	103	51.29	103	80-120	73-127	0	0-20	
Bromoform	50.00	53.71	107	54.86	110	80-120	73-127	2	0-20	
Bromomethane	50.00	61.71	123	53.83	108	80-120	73-127	14	0-20	ME
2-Butanone	50.00	64.38	129	70.32	141	80-120	73-127	9	0-20	X
n-Butylbenzene	50.00	50.87	102	51.20	102	77-123	69-131	1	0-25	
sec-Butylbenzene	50.00	47.36	95	48.52	97	80-120	73-127	2	0-20	
tert-Butylbenzene	50.00	46.85	94	48.07	96	80-120	73-127	3	0-20	
Carbon Disulfide	50.00	51.77	104	50.13	100	80-120	73-127	3	0-20	
Carbon Tetrachloride	50.00	51.77	104	49.61	99	65-137	53-149	4	0-20	
Chlorobenzene	50.00	46.11	92	46.05	92	80-120	73-127	0	0-20	
Chloroethane	50.00	52.40	105	49.82	100	80-120	73-127	5	0-20	
Chloroform	50.00	48.84	98	46.89	94	80-120	73-127	4	0-20	
Chloromethane	50.00	46.71	93	44.74	89	80-120	73-127	4	0-20	
2-Chlorotoluene	50.00	46.85	94	46.62	93	80-120	73-127	0	0-20	
4-Chlorotoluene	50.00	46.31	93	47.11	94	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	50.59	101	50.24	100	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	48.90	98	49.10	98	80-120	73-127	0	0-20	
1,2-Dibromoethane	50.00	47.84	96	48.73	97	80-120	73-127	2	0-20	
Dibromomethane	50.00	47.51	95	47.14	94	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	46.43	93	47.44	95	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	45.89	92	46.71	93	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	48.92	98	49.51	99	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	51.65	103	49.88	100	80-120	73-127	3	0-20	
1,1-Dichloroethane	50.00	48.92	98	48.23	96	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	48.65	97	49.36	99	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	52.31	105	51.47	103	68-128	58-138	2	0-20	
c-1,2-Dichloroethene	50.00	52.25	105	49.37	99	80-120	73-127	6	0-20	
t-1,2-Dichloroethene	50.00	51.42	103	49.67	99	80-120	73-127	3	0-20	
1,2-Dichloropropane	50.00	48.88	98	48.04	96	79-115	73-121	2	0-25	
1,3-Dichloropropane	50.00	50.13	100	50.24	100	80-120	73-127	0	0-20	
2,2-Dichloropropane	50.00	49.40	99	47.76	96	80-120	73-127	3	0-20	
1,1-Dichloropropene	50.00	53.04	106	51.59	103	80-120	73-127	3	0-20	
c-1,3-Dichloropropene	50.00	51.11	102	51.05	102	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	49.11	98	48.30	97	80-120	73-127	2	0-20	
Ethylbenzene	50.00	50.68	101	50.10	100	80-120	73-127	1	0-20	
2-Hexanone	50.00	57.46	115	57.44	115	80-120	73-127	0	0-20	
Isopropylbenzene	50.00	46.24	92	46.36	93	80-120	73-127	0	0-20	
p-Isopropyltoluene	50.00	47.58	95	47.29	95	80-120	73-127	1	0-20	
Methylene Chloride	50.00	50.30	101	48.18	96	80-120	73-127	4	0-20	
4-Methyl-2-Pentanone	50.00	53.96	108	55.60	111	80-120	73-127	3	0-20	
Naphthalene	50.00	51.24	102	51.13	102	80-120	73-127	0	0-20	
n-Propylbenzene	50.00	46.39	93	45.62	91	80-120	73-127	2	0-20	
Styrene	50.00	50.89	102	50.16	100	80-120	73-127	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.02	100	51.25	103	80-120	73-127	2	0-20	
1,1,2,2-Tetrachloroethane	50.00	49.31	99	52.50	105	80-120	73-127	6	0-20	
Tetrachloroethene	50.00	51.98	104	52.01	104	80-120	73-127	0	0-20	
Toluene	50.00	50.19	100	50.32	101	80-120	73-127	0	0-20	
1,2,3-Trichlorobenzene	50.00	51.35	103	50.69	101	80-120	73-127	1	0-20	
1,2,4-Trichlorobenzene	50.00	50.64	101	49.70	99	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	50.00	50.01	100	48.56	97	80-120	73-127	3	0-20	
1,1,2-Trichloroethane	50.00	47.39	95	45.84	92	80-120	73-127	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	57.80	116	54.92	110	80-120	73-127	5	0-20	
Trichloroethene	50.00	48.88	98	49.08	98	80-120	73-127	0	0-20	
Trichlorofluoromethane	50.00	53.09	106	51.13	102	80-120	73-127	4	0-20	
1,2,3-Trichloropropane	50.00	46.63	93	47.18	94	80-120	73-127	1	0-20	
1,2,4-Trimethylbenzene	50.00	51.83	104	52.05	104	80-120	73-127	0	0-20	
1,3,5-Trimethylbenzene	50.00	52.68	105	50.97	102	80-120	73-127	3	0-20	
Vinyl Acetate	50.00	51.51	103	48.50	97	80-120	73-127	6	0-20	
Vinyl Chloride	50.00	57.80	116	55.15	110	67-127	57-137	5	0-20	
p/m-Xylene	100.0	96.60	97	96.12	96	80-120	73-127	1	0-20	
o-Xylene	50.00	46.01	92	44.79	90	80-120	73-127	3	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	50.63	101	48.24	96	70-124	61-133	5	0-20	
Tert-Butyl Alcohol (TBA)	250.0	246.8	99	233.7	93	73-121	65-129	5	0-20	
Diisopropyl Ether (DIPE)	50.00	50.02	100	48.49	97	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	51.37	103	49.92	100	70-124	61-133	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	50.44	101	50.00	100	74-122	66-130	1	0-20	
Ethanol	500.0	564.9	113	523.0	105	51-135	37-149	8	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 1
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 9 of 15

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-252	**Soil**	**GC/MS PP**	**06/24/13**	**06/24/13 11:04**	**130624L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	48.91	98	47.57	95	80-120	73-127	3	0-20	
Benzene	50.00	48.03	96	47.95	96	80-120	73-127	0	0-20	
Bromobenzene	50.00	49.37	99	48.79	98	80-120	73-127	1	0-20	
Bromochloromethane	50.00	48.95	98	50.15	100	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	56.63	113	56.64	113	80-120	73-127	0	0-20	
Bromoform	50.00	58.43	117	57.58	115	80-120	73-127	1	0-20	
Bromomethane	50.00	55.06	110	55.45	111	80-120	73-127	1	0-20	
2-Butanone	50.00	55.29	111	56.40	113	80-120	73-127	2	0-20	
n-Butylbenzene	50.00	49.49	99	47.71	95	77-123	69-131	4	0-25	
sec-Butylbenzene	50.00	48.69	97	47.21	94	80-120	73-127	3	0-20	
tert-Butylbenzene	50.00	48.33	97	46.10	92	80-120	73-127	5	0-20	
Carbon Disulfide	50.00	53.25	106	52.22	104	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	63.96	128	63.63	127	65-137	53-149	1	0-20	
Chlorobenzene	50.00	48.29	97	47.21	94	80-120	73-127	2	0-20	
Chloroethane	50.00	46.47	93	45.88	92	80-120	73-127	1	0-20	
Chloroform	50.00	54.36	109	54.61	109	80-120	73-127	0	0-20	
Chloromethane	50.00	51.22	102	50.78	102	80-120	73-127	1	0-20	
2-Chlorotoluene	50.00	48.40	97	47.19	94	80-120	73-127	3	0-20	
4-Chlorotoluene	50.00	49.77	100	47.83	96	80-120	73-127	4	0-20	
Dibromochloromethane	50.00	55.49	111	54.86	110	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	55.97	112	53.79	108	80-120	73-127	4	0-20	
1,2-Dibromoethane	50.00	50.53	101	50.41	101	80-120	73-127	0	0-20	
Dibromomethane	50.00	53.38	107	52.44	105	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	47.34	95	46.56	93	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	49.27	99	48.18	96	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	48.54	97	46.68	93	80-120	73-127	4	0-20	
Dichlorodifluoromethane	50.00	60.46	121	58.41	117	80-120	73-127	3	0-20	ME
1,1-Dichloroethane	50.00	52.14	104	52.21	104	80-120	73-127	0	0-20	
1,2-Dichloroethane	50.00	57.47	115	56.95	114	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	56.62	113	56.59	113	68-128	58-138	0	0-20	
c-1,2-Dichloroethene	50.00	49.75	100	49.62	99	80-120	73-127	0	0-20	
t-1,2-Dichloroethene	50.00	51.27	103	51.05	102	80-120	73-127	0	0-20	
1,2-Dichloropropane	50.00	50.58	101	50.56	101	79-115	73-121	0	0-25	
1,3-Dichloropropane	50.00	49.02	98	47.71	95	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	57.79	116	58.08	116	80-120	73-127	1	0-20	
1,1-Dichloropropene	50.00	51.74	103	52.17	104	80-120	73-127	1	0-20	
c-1,3-Dichloropropene	50.00	53.74	107	53.61	107	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	56.33	113	54.99	110	80-120	73-127	2	0-20	
Ethylbenzene	50.00	49.09	98	47.82	96	80-120	73-127	3	0-20	
2-Hexanone	50.00	44.57	89	45.36	91	80-120	73-127	2	0-20	
Isopropylbenzene	50.00	48.55	97	47.53	95	80-120	73-127	2	0-20	
p-Isopropyltoluene	50.00	49.45	99	47.39	95	80-120	73-127	4	0-20	
Methylene Chloride	50.00	49.04	98	49.17	98	80-120	73-127	0	0-20	
4-Methyl-2-Pentanone	50.00	46.40	93	48.09	96	80-120	73-127	4	0-20	
Naphthalene	50.00	47.58	95	48.78	98	80-120	73-127	2	0-20	
n-Propylbenzene	50.00	48.34	97	47.34	95	80-120	73-127	2	0-20	
Styrene	50.00	46.29	93	46.22	92	80-120	73-127	0	0-20	
1,1,1,2-Tetrachloroethane	50.00	55.19	110	55.00	110	80-120	73-127	0	0-20	
1,1,2,2-Tetrachloroethane	50.00	49.27	99	48.85	98	80-120	73-127	1	0-20	
Tetrachloroethene	50.00	53.31	107	51.54	103	80-120	73-127	3	0-20	
Toluene	50.00	49.27	99	49.22	98	80-120	73-127	0	0-20	
1,2,3-Trichlorobenzene	50.00	52.23	104	52.64	105	80-120	73-127	1	0-20	
1,2,4-Trichlorobenzene	50.00	51.77	104	51.35	103	80-120	73-127	1	0-20	
1,1,1-Trichloroethane	50.00	58.77	118	58.37	117	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	50.00	48.72	97	48.88	98	80-120	73-127	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	56.18	112	56.86	114	80-120	73-127	1	0-20	
Trichloroethene	50.00	53.29	107	52.86	106	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	63.27	127	61.51	123	80-120	73-127	3	0-20	ME
1,2,3-Trichloropropane	50.00	52.12	104	52.23	104	80-120	73-127	0	0-20	
1,2,4-Trimethylbenzene	50.00	49.48	99	47.17	94	80-120	73-127	5	0-20	
1,3,5-Trimethylbenzene	50.00	48.04	96	47.14	94	80-120	73-127	2	0-20	
Vinyl Acetate	50.00	43.22	86	44.91	90	80-120	73-127	4	0-20	
Vinyl Chloride	50.00	53.38	107	52.94	106	67-127	57-137	1	0-20	
p/m-Xylene	100.0	96.13	96	93.68	94	80-120	73-127	3	0-20	
o-Xylene	50.00	46.89	94	46.33	93	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.10	94	49.13	98	70-124	61-133	4	0-20	
Tert-Butyl Alcohol (TBA)	250.0	232.2	93	239.4	96	73-121	65-129	3	0-20	
Diisopropyl Ether (DIPE)	50.00	51.56	103	53.07	106	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	47.24	94	49.65	99	70-124	61-133	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	43.57	87	44.94	90	74-122	66-130	3	0-20	
Ethanol	500.0	505.3	101	508.9	102	51-135	37-149	1	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 2
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 12 of 15

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-256	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 15:40**	**130625L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	69.85	140	69.41	139	80-120	73-127	1	0-20	X
Benzene	50.00	47.63	95	48.39	97	80-120	73-127	2	0-20	
Bromobenzene	50.00	47.85	96	49.87	100	80-120	73-127	4	0-20	
Bromochloromethane	50.00	50.54	101	51.42	103	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	51.19	102	50.51	101	80-120	73-127	1	0-20	
Bromoform	50.00	56.89	114	56.54	113	80-120	73-127	1	0-20	
Bromomethane	50.00	40.91	82	46.13	92	80-120	73-127	12	0-20	
2-Butanone	50.00	74.10	148	79.30	159	80-120	73-127	7	0-20	X
n-Butylbenzene	50.00	47.84	96	50.03	100	77-123	69-131	4	0-25	
sec-Butylbenzene	50.00	44.36	89	46.67	93	80-120	73-127	5	0-20	
tert-Butylbenzene	50.00	46.88	94	48.45	97	80-120	73-127	3	0-20	
Carbon Disulfide	50.00	52.46	105	49.14	98	80-120	73-127	7	0-20	
Carbon Tetrachloride	50.00	57.23	114	59.83	120	65-137	53-149	4	0-20	
Chlorobenzene	50.00	45.09	90	47.39	95	80-120	73-127	5	0-20	
Chloroethane	50.00	43.25	86	45.01	90	80-120	73-127	4	0-20	
Chloroform	50.00	48.12	96	49.74	99	80-120	73-127	3	0-20	
Chloromethane	50.00	42.37	85	42.18	84	80-120	73-127	0	0-20	
2-Chlorotoluene	50.00	45.14	90	46.88	94	80-120	73-127	4	0-20	
4-Chlorotoluene	50.00	46.16	92	47.25	95	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	52.25	104	53.61	107	80-120	73-127	3	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.37	103	50.39	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	51.52	103	53.55	107	80-120	73-127	4	0-20	
Dibromomethane	50.00	49.66	99	51.73	103	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	50.00	45.08	90	46.00	92	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	45.49	91	46.86	94	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	50.00	47.68	95	49.46	99	80-120	73-127	4	0-20	
Dichlorodifluoromethane	50.00	47.88	96	47.66	95	80-120	73-127	0	0-20	
1,1-Dichloroethane	50.00	51.72	103	55.10	110	80-120	73-127	6	0-20	
1,2-Dichloroethane	50.00	48.48	97	48.28	97	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	44.41	89	44.95	90	68-128	58-138	1	0-20	
c-1,2-Dichloroethene	50.00	49.30	99	51.06	102	80-120	73-127	4	0-20	
t-1,2-Dichloroethene	50.00	50.96	102	53.40	107	80-120	73-127	5	0-20	
1,2-Dichloropropane	50.00	49.17	98	49.26	99	79-115	73-121	0	0-25	
1,3-Dichloropropane	50.00	50.26	101	51.92	104	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	66.62	133	96.29	193	80-120	73-127	36	0-20	X
1,1-Dichloropropene	50.00	50.22	100	51.90	104	80-120	73-127	3	0-20	
c-1,3-Dichloropropene	50.00	54.69	109	54.61	109	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/21/13
Work Order: 13-06-1493
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	54.07	108	55.67	111	80-120	73-127	3	0-20	
Ethylbenzene	50.00	47.97	96	50.34	101	80-120	73-127	5	0-20	
2-Hexanone	50.00	61.94	124	65.11	130	80-120	73-127	5	0-20	ME,X
Isopropylbenzene	50.00	44.06	88	46.33	93	80-120	73-127	5	0-20	
p-Isopropyltoluene	50.00	44.07	88	46.51	93	80-120	73-127	5	0-20	
Methylene Chloride	50.00	47.79	96	48.64	97	80-120	73-127	2	0-20	
4-Methyl-2-Pentanone	50.00	53.73	107	54.62	109	80-120	73-127	2	0-20	
Naphthalene	50.00	50.29	101	51.71	103	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	43.66	87	45.87	92	80-120	73-127	5	0-20	
Styrene	50.00	48.46	97	50.52	101	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.12	100	51.89	104	80-120	73-127	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.18	102	52.64	105	80-120	73-127	3	0-20	
Tetrachloroethene	50.00	44.59	89	47.62	95	80-120	73-127	7	0-20	
Toluene	50.00	48.30	97	48.90	98	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	47.23	94	49.04	98	80-120	73-127	4	0-20	
1,2,4-Trichlorobenzene	50.00	48.57	97	50.23	100	80-120	73-127	3	0-20	
1,1,1-Trichloroethane	50.00	49.61	99	51.44	103	80-120	73-127	4	0-20	
1,1,2-Trichloroethane	50.00	49.10	98	50.07	100	80-120	73-127	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	45.53	91	48.16	96	80-120	73-127	6	0-20	
Trichloroethene	50.00	47.38	95	48.50	97	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	48.00	96	49.25	98	80-120	73-127	3	0-20	
1,2,3-Trichloropropane	50.00	50.26	101	51.06	102	80-120	73-127	2	0-20	
1,2,4-Trimethylbenzene	50.00	49.25	99	49.79	100	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	47.88	96	50.38	101	80-120	73-127	5	0-20	
Vinyl Acetate	50.00	56.60	113	56.92	114	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	39.41	79	40.22	80	67-127	57-137	2	0-20	
p/m-Xylene	100.0	91.97	92	95.87	96	80-120	73-127	4	0-20	
o-Xylene	50.00	44.20	88	45.89	92	80-120	73-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	51.94	104	53.21	106	70-124	61-133	2	0-20	
Tert-Butyl Alcohol (TBA)	250.0	236.4	95	255.0	102	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	50.00	49.62	99	51.78	104	69-129	59-139	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.43	101	52.02	104	70-124	61-133	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.44	99	49.75	99	74-122	66-130	1	0-20	
Ethanol	500.0	350.3	70	281.2	56	51-135	37-149	22	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 1
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/21/13
1111 Broadway, FL 6TH	Work Order:	13-06-1493
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 15 of 15

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1493 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 5035	799	GC 56	2
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8260B	EPA 5035	823	GC/MS Q	1
EPA 8260B	EPA 5035	823	GC/MS BB	2
EPA 8260B	EPA 5035	849	GC/MS PP	2
EPA 8270C SIM PAHs	EPA 3545	449	GC/MS EEE	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1493 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/21/13

PAGE: 1 OF 2

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens
P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 13-06-1493

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
1	SV-11-02	6/21/13	0750	Soil	1	x					
2	SV-11-05		0800		5	x	x				
3	SV-11-12		0840		4		x				
4	SV-09-02		0950		1	x					
5	SV-09-05		1000		1	x					
6	SBV-06-05		1030		9		x	x	x		x
7	SBV-06-12		1045		9		x	x	x		x
8	SBV-06-21		1115		9		x	x	x		x
9	SBV-06-29		1145		5		x		x		
10	SBV-06-40		1210		4		x				

Relinquished by: (Signature) FMansfield (Geosyntec)	Received by: (Signature) CFL	Date: 6/21/2013	Time: 1545
Relinquished by: (Signature)	Received by: (Signature) Dannyle CFL	Date: 6/21/13	Time: 17:56
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/21/2013

PAGE: 2 OF 2

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens
P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 06-1493

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS
All samples on this chain of custody are soil matrix samples

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
11	SBG-1-005	6/21/13	0820	~~water~~ Soil	4		X				
12	SBG-1-010	6/21/13	0831	~~water~~	4		X				
13	SBG-1-020	6/21/13	0912	~~water~~	4		X				
14	SBG-1-030	6/21/13	0931	~~water~~	4		X				
15	SBG-1-040	6/21/13	0953	~~water~~	4		X				
16	SBG-1-060	6/21/13	1031	~~water~~	4		X				
17	SBG-1-090	6/21/13	1120	~~water~~	4		X				
18	SBG-1-110	6/21/13	1252	~~water~~	4		X				
19	SBG-1-120	6/21/13	1311	~~water~~	4		X				
20	SV-01-02	6/21/13	1526		1	X					
21	SV-01-05	6/21/13	1532	↓	1	X					

Relinquished by: (Signature) FMansfield (Geosyntec)	Received by: (Signature) ~~F. MANSFIELD~~ CEL	Date: 6/21/2013	Time: 1545
Relinquished by: (Signature)	Received by: (Signature) Dannyle CEL	Date: 6/21/13	Time: 17:56
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1493

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants DATE: 06/21/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.4 °C - 0.2 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® ☑2ozPJ

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** _____

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

*(-2) to (-10) Collection date per Label is 6/21/13

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1493

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☒ **Sample label(s) do not match COC** – Note in comments
  - ☒ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

(-9) 1 of 3 terracore (MeOH) labeled as: SBV-06-40. Date and time matched.

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: HH 06/24/13

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1591

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 06/26/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1591

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1591 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/24/13. They were assigned to Work Order 13-06-1591.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1591
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
IDW Soil (13-06-1591-1)						
Arsenic	3.84		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	96.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.305		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.76		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	63.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	5.78		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	12.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.51		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.28		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	37.8	B	1.00	mg/kg	EPA 6010B	EPA 3050B
TPH as Gasoline	0.21	J	0.052*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	15	J	6.4*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.3		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.8	J	3.9*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.39	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	3.5		1.0	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.95	J	0.84*	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	0.61	J	0.52*	ug/kg	EPA 8260B	EPA 5035
Toluene	5.2		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	1.3	J	0.60*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	2.1		2.1	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.93	J	0.57*	ug/kg	EPA 8260B	EPA 5035
Sulfate	86		10	mg/kg	EPA 9038	N/A

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/24/13
Work Order:	13-06-1591
Preparation:	N/A
Method:	EPA 376.2M
Units:	mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**N/A**	**06/25/13**	**06/25/13 15:15**	**D0625SL3**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Total	0.50	0.50	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-001-4682**	**N/A**	**Soil**	**N/A**	**06/25/13**	**06/25/13 15:15**	**D0625SL3**

Parameter	Result	RL	DF	Qualifiers
Sulfide, Total	ND	0.50	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: N/A
Method: EPA 9038
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**UV 8**	**06/25/13**	**06/25/13 13:30**	**D0625SO4L1**

Parameter	Result	RL	DF	Qualifiers
Sulfate	86	10	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-05-001-4683**	**N/A**	**Soil**	**UV 8**	**06/25/13**	**06/25/13 13:30**	**D0625SO4L1**

Parameter	Result	RL	DF	Qualifiers
Sulfate	ND	10	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:41**	**130625B02S**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	101	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-476**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:53**	**130625B02S**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:41**	**130625B01S**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	SG

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	101	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-558**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:53**	**130625B01S**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-H**	**06/24/13 14:22**	**Soil**	**GC 4**	**06/24/13**	**06/25/13 19:19**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.21	0.26	0.052	1.04	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

Method Blank	099-12-285-4757	N/A	Soil	GC 4	06/25/13	06/25/13 17:40	130625B01

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	90	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**ICP 7300**	**06/25/13**	**06/25/13 11:43**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.84	0.750	0.259	1	
Barium	96.9	0.500	0.154	1	
Beryllium	0.305	0.250	0.137	1	
Cadmium	1.76	0.500	0.135	1	
Chromium	63.1	0.250	0.142	1	
Cobalt	5.78	0.250	0.148	1	
Copper	12.9	0.500	0.135	1	
Lead	2.51	0.500	0.132	1	
Molybdenum	3.28	0.250	0.132	1	
Nickel	20.7	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	36.6	0.250	0.141	1	
Zinc	37.8	1.00	0.178	1	B

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-16957**	**N/A**	**Soil**	**ICP 7300**	**06/25/13**	**06/25/13 11:33**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	0.202	1.00	0.178	1	J

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**Mercury**	**06/24/13**	**06/25/13 12:12**	**130624L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9385**	**N/A**	**Soil**	**Mercury**	**06/24/13**	**06/24/13 16:30**	**130624L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00645	0.0835	0.00588	1	J

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-F**	**06/24/13 14:22**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 19:02**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	15	52	6.4	1.03	J
Benzene	3.3	1.0	0.13	1.03	
Bromobenzene	ND	1.0	0.22	1.03	
Bromochloromethane	ND	2.1	0.71	1.03	
Bromodichloromethane	ND	1.0	0.24	1.03	
Bromoform	ND	5.2	0.82	1.03	
Bromomethane	ND	21	9.7	1.03	
2-Butanone	4.8	21	3.9	1.03	J
n-Butylbenzene	0.39	1.0	0.16	1.03	J
sec-Butylbenzene	ND	1.0	0.60	1.03	
tert-Butylbenzene	ND	1.0	0.16	1.03	
Carbon Disulfide	ND	10	0.31	1.03	
Carbon Tetrachloride	ND	1.0	0.29	1.03	
Chlorobenzene	ND	1.0	0.23	1.03	
Chloroethane	ND	2.1	1.9	1.03	
Chloroform	ND	1.0	0.25	1.03	
Chloromethane	ND	21	0.71	1.03	
2-Chlorotoluene	ND	1.0	0.24	1.03	
4-Chlorotoluene	ND	1.0	0.22	1.03	
Dibromochloromethane	ND	2.1	0.59	1.03	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.03	
1,2-Dibromoethane	ND	1.0	0.26	1.03	
Dibromomethane	ND	1.0	0.80	1.03	
1,2-Dichlorobenzene	ND	1.0	0.24	1.03	
1,3-Dichlorobenzene	ND	1.0	0.18	1.03	
1,4-Dichlorobenzene	ND	1.0	0.23	1.03	
Dichlorodifluoromethane	ND	2.1	0.46	1.03	
1,1-Dichloroethane	ND	1.0	1.0	1.03	
1,2-Dichloroethane	ND	1.0	0.32	1.03	
1,1-Dichloroethene	ND	1.0	0.36	1.03	
c-1,2-Dichloroethene	ND	1.0	0.29	1.03	
t-1,2-Dichloroethene	ND	1.0	0.52	1.03	
1,2-Dichloropropane	ND	1.0	0.45	1.03	
1,3-Dichloropropane	ND	1.0	0.26	1.03	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.34	1.03	
1,1-Dichloropropene	ND	2.1	0.34	1.03	
c-1,3-Dichloropropene	ND	1.0	0.26	1.03	
t-1,3-Dichloropropene	ND	2.1	0.62	1.03	
Ethylbenzene	3.5	1.0	0.16	1.03	
2-Hexanone	ND	21	1.8	1.03	
Isopropylbenzene	ND	1.0	0.56	1.03	
p-Isopropyltoluene	ND	1.0	0.65	1.03	
Methylene Chloride	ND	10	1.4	1.03	
4-Methyl-2-Pentanone	ND	21	4.5	1.03	
Naphthalene	0.95	10	0.84	1.03	J
n-Propylbenzene	0.61	2.1	0.52	1.03	J
Styrene	ND	1.0	0.62	1.03	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.03	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.03	
Tetrachloroethene	ND	1.0	0.22	1.03	
Toluene	5.2	1.0	0.53	1.03	
1,2,3-Trichlorobenzene	ND	2.1	0.94	1.03	
1,2,4-Trichlorobenzene	ND	2.1	0.32	1.03	
1,1,1-Trichloroethane	ND	1.0	0.23	1.03	
1,1,2-Trichloroethane	ND	1.0	0.98	1.03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.03	
Trichloroethene	ND	2.1	0.31	1.03	
Trichlorofluoromethane	ND	10	0.39	1.03	
1,2,3-Trichloropropane	ND	2.1	0.71	1.03	
1,2,4-Trimethylbenzene	1.3	2.1	0.60	1.03	J
1,3,5-Trimethylbenzene	ND	2.1	0.57	1.03	
Vinyl Acetate	ND	10	4.9	1.03	
Vinyl Chloride	ND	1.0	0.52	1.03	
p/m-Xylene	2.1	2.1	0.28	1.03	
o-Xylene	0.93	1.0	0.57	1.03	J
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.30	1.03	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-256**	**N/A**	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 18:05**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	94	79-133	
1,2-Dichloroethane-d4	104	71-155	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: N/A
Method: EPA 9038

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW Soil	**Soil**	**UV 8**	**06/25/13**	**06/25/13 13:30**	**D0625SO4S1**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfate	86.33	75.00	158.5	96	158.0	96	70-130	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 2 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW Soil	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:10**	**130625S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	313.3	78	284.2	71	64-130	10	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 3 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW Soil	**Soil**	**GC 47**	**06/25/13**	**06/25/13 19:40**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	459.9	115	458.8	115	64-130	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1588-1	**Soil**	**ICP 7300**	**06/25/13**	**06/25/13 11:44**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	11.44	46	10.31	41	50-115	10	0-20	3
Arsenic	15.71	25.00	33.23	70	38.97	93	75-125	16	0-20	3
Barium	34.08	25.00	55.71	87	57.80	95	75-125	4	0-20	
Beryllium	0.2856	25.00	23.28	92	25.13	99	75-125	8	0-20	
Cadmium	ND	25.00	22.56	90	24.34	97	75-125	8	0-20	
Chromium	13.82	25.00	37.96	97	37.67	95	75-125	1	0-20	
Cobalt	6.690	25.00	29.50	91	31.89	101	75-125	8	0-20	
Copper	14.95	25.00	35.25	81	39.09	97	75-125	10	0-20	
Lead	8.358	25.00	27.66	77	31.86	94	75-125	14	0-20	
Molybdenum	ND	25.00	22.77	91	23.97	96	75-125	5	0-20	
Nickel	10.38	25.00	33.83	94	35.57	101	75-125	5	0-20	
Selenium	ND	25.00	20.20	81	21.43	86	75-125	6	0-20	
Silver	ND	12.50	11.75	94	12.60	101	75-125	7	0-20	
Thallium	ND	25.00	12.28	49	17.67	71	75-125	36	0-20	3,4
Vanadium	22.37	25.00	42.01	79	47.11	99	75-125	11	0-20	
Zinc	48.45	25.00	60.86	50	69.78	85	75-125	14	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 7471A Total
Method: EPA 7471A
Page 5 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1526-8	**Soil**	**Mercury**	**06/24/13**	**06/24/13 16:39**	**130624S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.09055	0.8350	0.7315	77	0.7400	78	71-137	1	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - PDS/PDSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-06-1588-1	**Soil**	**ICP 7300**	**06/25/13 00:00**	**06/25/13 11:49**	**130625S01**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	21.64	87	22.73	91	75-125	5	0-20	
Arsenic	15.71	25.00	38.89	93	39.17	94	75-125	1	0-20	
Barium	34.08	25.00	59.15	100	59.64	102	75-125	1	0-20	
Beryllium	0.2856	25.00	24.61	97	24.90	98	75-125	1	0-20	
Cadmium	ND	25.00	24.23	97	24.39	98	75-125	1	0-20	
Chromium	13.82	25.00	37.51	95	38.46	99	75-125	2	0-20	
Cobalt	6.690	25.00	31.69	100	32.24	102	75-125	2	0-20	
Copper	14.95	25.00	40.10	101	40.25	101	75-125	0	0-20	
Lead	8.358	25.00	31.58	93	32.30	96	75-125	2	0-20	
Molybdenum	ND	25.00	24.19	97	24.61	98	75-125	2	0-20	
Nickel	10.38	25.00	35.50	100	36.35	104	75-125	2	0-20	
Selenium	ND	25.00	21.54	86	22.03	88	75-125	2	0-20	
Silver	ND	12.50	12.03	96	12.30	98	75-125	2	0-20	
Thallium	ND	25.00	23.10	92	23.08	92	75-125	0	0-20	
Vanadium	22.37	25.00	45.81	94	46.49	96	75-125	1	0-20	
Zinc	48.45	25.00	72.65	97	73.00	98	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Sample Duplicate

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	N/A
		Method:	EPA 376.2M
Project: KP Chatsworth / WR1767-02			Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
IDW Soil	**Soil**	**N/A**	**06/25/13 00:00**	**06/25/13 15:15**	**D0625SD3**

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Sulfide, Total	0.5000	0.5000	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: N/A
Method: EPA 9038

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-001-4683	**Soil**	**UV 8**	**06/25/13**	**06/25/13 13:30**	**D0625SO4L1**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Sulfate	100.0	92.50	92	93.50	94	80-120	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 2 of 8

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-420-476	**Soil**	**GC 47**	**06/25/13 19:09**	**130625B02S**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	453.7	113	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 3 of 8

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-422-558	**Soil**	**GC 47**	**06/25/13 19:09**	**130625B01S**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	447.0	112	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4757	**Soil**	**GC 4**	**06/25/13**	**06/25/13 18:13**	**130625B01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	1.757	88	1.745	87	55-139	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-01-002-16957	**Soil**	**ICP 7300**	**06/25/13 11:35**	**130625L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	25.79	103	80-120	73-127	
Arsenic	25.00	25.04	100	80-120	73-127	
Barium	25.00	27.54	110	80-120	73-127	
Beryllium	25.00	26.11	104	80-120	73-127	
Cadmium	25.00	26.31	105	80-120	73-127	
Chromium	25.00	26.25	105	80-120	73-127	
Cobalt	25.00	27.54	110	80-120	73-127	
Copper	25.00	26.54	106	80-120	73-127	
Lead	25.00	24.76	99	80-120	73-127	
Molybdenum	25.00	26.34	105	80-120	73-127	
Nickel	25.00	27.47	110	80-120	73-127	
Selenium	25.00	24.18	97	80-120	73-127	
Silver	12.50	13.20	106	80-120	73-127	
Thallium	25.00	25.41	102	80-120	73-127	
Vanadium	25.00	25.64	103	80-120	73-127	
Zinc	25.00	29.25	117	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: KP Chatsworth / WR1767-02			Page 6 of 8

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-04-007-9385	**Soil**	**Mercury**	**06/24/13 16:32**	**130624L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.7745	93	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-256	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 15:40**	**130625L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	69.85	140	69.41	139	80-120	73-127	1	0-20	X
Benzene	50.00	47.63	95	48.39	97	80-120	73-127	2	0-20	
Bromobenzene	50.00	47.85	96	49.87	100	80-120	73-127	4	0-20	
Bromochloromethane	50.00	50.54	101	51.42	103	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	51.19	102	50.51	101	80-120	73-127	1	0-20	
Bromoform	50.00	56.89	114	56.54	113	80-120	73-127	1	0-20	
Bromomethane	50.00	40.91	82	46.13	92	80-120	73-127	12	0-20	
2-Butanone	50.00	74.10	148	79.30	159	80-120	73-127	7	0-20	X
n-Butylbenzene	50.00	47.84	96	50.03	100	77-123	69-131	4	0-25	
sec-Butylbenzene	50.00	44.36	89	46.67	93	80-120	73-127	5	0-20	
tert-Butylbenzene	50.00	46.88	94	48.45	97	80-120	73-127	3	0-20	
Carbon Disulfide	50.00	52.46	105	49.14	98	80-120	73-127	7	0-20	
Carbon Tetrachloride	50.00	57.23	114	59.83	120	65-137	53-149	4	0-20	
Chlorobenzene	50.00	45.09	90	47.39	95	80-120	73-127	5	0-20	
Chloroethane	50.00	43.25	86	45.01	90	80-120	73-127	4	0-20	
Chloroform	50.00	48.12	96	49.74	99	80-120	73-127	3	0-20	
Chloromethane	50.00	42.37	85	42.18	84	80-120	73-127	0	0-20	
2-Chlorotoluene	50.00	45.14	90	46.88	94	80-120	73-127	4	0-20	
4-Chlorotoluene	50.00	46.16	92	47.25	95	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	52.25	104	53.61	107	80-120	73-127	3	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.37	103	50.39	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	51.52	103	53.55	107	80-120	73-127	4	0-20	
Dibromomethane	50.00	49.66	99	51.73	103	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	50.00	45.08	90	46.00	92	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	45.49	91	46.86	94	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	50.00	47.68	95	49.46	99	80-120	73-127	4	0-20	
Dichlorodifluoromethane	50.00	47.88	96	47.66	95	80-120	73-127	0	0-20	
1,1-Dichloroethane	50.00	51.72	103	55.10	110	80-120	73-127	6	0-20	
1,2-Dichloroethane	50.00	48.48	97	48.28	97	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	44.41	89	44.95	90	68-128	58-138	1	0-20	
c-1,2-Dichloroethene	50.00	49.30	99	51.06	102	80-120	73-127	4	0-20	
t-1,2-Dichloroethene	50.00	50.96	102	53.40	107	80-120	73-127	5	0-20	
1,2-Dichloropropane	50.00	49.17	98	49.26	99	79-115	73-121	0	0-25	
1,3-Dichloropropane	50.00	50.26	101	51.92	104	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	66.62	133	96.29	193	80-120	73-127	36	0-20	X
1,1-Dichloropropene	50.00	50.22	100	51.90	104	80-120	73-127	3	0-20	
c-1,3-Dichloropropene	50.00	54.69	109	54.61	109	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	54.07	108	55.67	111	80-120	73-127	3	0-20	
Ethylbenzene	50.00	47.97	96	50.34	101	80-120	73-127	5	0-20	
2-Hexanone	50.00	61.94	124	65.11	130	80-120	73-127	5	0-20	ME,X
Isopropylbenzene	50.00	44.06	88	46.33	93	80-120	73-127	5	0-20	
p-Isopropyltoluene	50.00	44.07	88	46.51	93	80-120	73-127	5	0-20	
Methylene Chloride	50.00	47.79	96	48.64	97	80-120	73-127	2	0-20	
4-Methyl-2-Pentanone	50.00	53.73	107	54.62	109	80-120	73-127	2	0-20	
Naphthalene	50.00	50.29	101	51.71	103	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	43.66	87	45.87	92	80-120	73-127	5	0-20	
Styrene	50.00	48.46	97	50.52	101	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.12	100	51.89	104	80-120	73-127	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.18	102	52.64	105	80-120	73-127	3	0-20	
Tetrachloroethene	50.00	44.59	89	47.62	95	80-120	73-127	7	0-20	
Toluene	50.00	48.30	97	48.90	98	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	47.23	94	49.04	98	80-120	73-127	4	0-20	
1,2,4-Trichlorobenzene	50.00	48.57	97	50.23	100	80-120	73-127	3	0-20	
1,1,1-Trichloroethane	50.00	49.61	99	51.44	103	80-120	73-127	4	0-20	
1,1,2-Trichloroethane	50.00	49.10	98	50.07	100	80-120	73-127	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	45.53	91	48.16	96	80-120	73-127	6	0-20	
Trichloroethene	50.00	47.38	95	48.50	97	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	48.00	96	49.25	98	80-120	73-127	3	0-20	
1,2,3-Trichloropropane	50.00	50.26	101	51.06	102	80-120	73-127	2	0-20	
1,2,4-Trimethylbenzene	50.00	49.25	99	49.79	100	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	47.88	96	50.38	101	80-120	73-127	5	0-20	
Vinyl Acetate	50.00	56.60	113	56.92	114	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	39.41	79	40.22	80	67-127	57-137	2	0-20	
p/m-Xylene	100.0	91.97	92	95.87	96	80-120	73-127	4	0-20	
o-Xylene	50.00	44.20	88	45.89	92	80-120	73-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	51.94	104	53.21	106	70-124	61-133	2	0-20	

Total number of LCS compounds: 66
Total number of ME compounds: 1
Total number of ME compounds allowed: 3
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1591

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 376.2M	N/A	735	N/A	1
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 5035	834	GC 4	2
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8260B	EPA 5035	823	GC/MS BB	2
EPA 9038	N/A	848	UV 8	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1591 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013

PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants	CLIENT PROJECT NAME / NUMBER: KP Chatsworth
ADDRESS: 1111 Broadway, 6th Floor	PROJECT CONTACT: Syed Rehan / Frances Mansfield
CITY: Oakland, CA 94607	SAMPLER(S): F.Mansfield / B. Cozzens
TEL: 510-836-3034	E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com
P.O. NO.: WR1767-02	QUOTE NO.:
LAB USE ONLY: 13-06-1591	

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☒ 48HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____ / ____ / ____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	VOCs (8260B)	TPHg (8015M) with silica gel cleanup	TPHd (8015M) with silica gel cleanup	TPHmo (8015M) with silica gel cleanup	T22 metals (CAM17)	Sulfate and sulfide
	~~IDW decon water~~			W		X	X	X			
1	IDW soil	6/24/13	1422	S	9	X	X	X	X	X	O

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/24/13	Time: 1605
Relinquished by: (Signature)	Received by: (Signature) Danny Le CEL	Date: 6/24/13	Time: 18:45
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1 5 9 1

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec DATE: 06/24/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.3 °C - 0.2 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (6) ☑60 mL PJ (2)

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** _____

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1591

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/15/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: KP Chatsworth / WR1767-02
Work Order Number: 13-06-1591

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4 Quality Control Sample Data. 6
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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1591 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/24/13. They were assigned to Work Order 13-06-1591.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Geosyntec Consultants	Work Order:	13-06-1591
	1111 Broadway, FL 6TH	Project Name:	KP Chatsworth / WR1767-02
	Oakland, CA 94607-4172	PO Number:	
		Date Received:	06/24/13
Attn:	Syed Rehan		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
IDW Soil	13-06-1591-1	06/24/13 14:22	9	Soil

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: T22.11.5. AII
Method: EPA 6010B
Units: mg/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW Soil	**13-06-1591-1-A**	**06/24/13 14:22**	**Soil**	**ICP 7300**	**07/10/13**	**07/12/13 20:37**	**130712LA9**

Parameter	Result	RL	DF	Qualifiers
Chromium	2.63	0.100	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-05-006-6807**	**N/A**	**Aqueous**	**ICP 7300**	**07/10/13**	**07/12/13 20:17**	**130712LA9**

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1591
Preparation: T22.11.5. AII
Method: EPA 6010B

Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1199-8	**Soil**	**ICP 7300**	**07/10/13**	**07/12/13 20:20**	**130712SA9**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	5.000	5.066	101	5.163	103	75-125	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1591
Oakland, CA 94607-4172		Preparation:	T22.11.5. AII
		Method:	EPA 6010B
Project: KP Chatsworth / WR1767-02			Page 1 of 1

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-05-006-6807	**Aqueous**	**ICP 7300**	**07/12/13 20:19**	**130712LA9**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Chromium	5.000	5.371	107	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1591

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	T22.11.5. AII	469	ICP 7300	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1591 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013

PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants	CLIENT PROJECT NAME / NUMBER: KP Chatsworth
ADDRESS: 1111 Broadway, 6th Floor	PROJECT CONTACT: Syed Rehan / Frances Mansfield
CITY: Oakland, CA 94607	SAMPLER(S): F.Mansfield / B. Cozzens
TEL: 510-836-3034	E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com
P.O. NO.: WR1767-02	QUOTE NO.:
LAB USE ONLY: 13-06-1591	

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☒ 48HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____ / ____ / ____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	VOCs (8260B)	TPHg (8015M) with silica gel cleanup	TPHd (8015M) with silica gel cleanup	TPHmo (8015M) with silica gel cleanup	T22 metals (CAM17)	Sulfate and sulfide
	~~IDW decon water~~			W		X	X	X			
1	IDW soil	6/24/13	1422	S	9	X	X	X	X	X	O

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/24/13	Time: 1605
Relinquished by: (Signature)	Received by: (Signature) Danny Le CEL	Date: 6/24/13	Time: 18:45
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1591

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec DATE: 06/24/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.3 °C - 0.2 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☑16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (6) ☑60 mL PJ (2)

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** _____

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Stephen Nowak

From: Frances Mansfield [FMansfield@Geosyntec.com]
Sent: Wednesday, July 10, 2013 4:38 PM
To: Stephen Nowak; Syed Rehan
Subject: RE: KP Chatsworth / WR1767-02 / CEL 13-06-1591

Steve,

Please perform STLC (Chromium) on the IDW Soil sample with a 3-day turnaround time. Billing code and project details remain the same (WR1767-02).

Yours,

Frances

Frances Mansfield, MSc
Geosyntec Consultants
510.285.2674 (office)
714.292.8785 (mobile)

From: Stephen Nowak [mailto:snowak@calscience.com]
Sent: Wednesday, July 10, 2013 2:34 PM
To: Frances Mansfield; Syed Rehan
Subject: RE: KP Chatsworth / WR1767-02 / CEL 13-06-1591

Hi Frances-

STLC for Cr on sample IDW Soil dated 06/24/13, not a problem at all.
We can run the STLC and have the results ready next week, 07/17/13.
The holding time for Hex Cr in soil is 30 days so we will still have time to run it within holding time if we need too.

Please send me another e-mail just requesting the STLC for Cr on this sample, for my files.
Note the turnaround time that you would like- normal is 5 days. The quickest we can run it is three days.

We'll go ahead and get it started.

Stephen Nowak
Project Manager
(714) 895-5494

The difference is service

From: Frances Mansfield [mailto:FMansfield@Geosyntec.com]
Sent: Wednesday, July 10, 2013 2:21 PM
To: Stephen Nowak; Syed Rehan
Subject: RE: KP Chatsworth / WR1767-02 / CEL 13-06-1591

Steve,

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1600

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/02/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1600

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1600 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/24/13. They were assigned to Work Order 13-06-1600.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Attn: Syed Rehan

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-05-02 (13-06-1600-1)						
Arsenic	3.44		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	95.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.323		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.58		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.46		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	14.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.98		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.62		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	42.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00679	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
SV-05-05 (13-06-1600-2)						
Arsenic	4.47		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	101		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.370		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.07		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.95		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.26		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.00		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	22.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	43.4		1.00	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-04-02 (13-06-1600-3)						
Arsenic	4.99		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	112		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.400		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.10		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	19.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.16		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	17.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.80		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.55		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	25.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	42.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	49.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00753	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
SV-04-05 (13-06-1600-4)						
Arsenic	4.39		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	102		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.371		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.94		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.43		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.46		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.22		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	23.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	44.9		1.00	mg/kg	EPA 6010B	EPA 3050B

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-04-05DUP (13-06-1600-5)						
Arsenic	4.46		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	98.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.342		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.97		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.94		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.17		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	4.24		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	23.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	43.1		1.00	mg/kg	EPA 6010B	EPA 3050B
SBV-01-05 (13-06-1600-6)						
TPH as Gasoline	0.16	HD,J	0.052*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	9.5	HD,J	7.0*	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	1.7	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	18	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.1		0.92	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.9	J	3.5*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.18	J	0.14*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.6		0.92	ug/kg	EPA 8260B	EPA 5035
p-Isopropyltoluene	0.82	J	0.58*	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		0.92	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.62	J	0.54*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.2	J	0.25*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.57	J	0.51*	ug/kg	EPA 8260B	EPA 5035
SBV-01-12 (13-06-1600-7)						
Acetone	24	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.9		0.98	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.9	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.37	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.5		0.98	ug/kg	EPA 8260B	EPA 5035
Toluene	2.9		0.98	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.26*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	7.2	J	5.0*	ug/kg	EPA 8260B	EPA 5035

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-01-20 (13-06-1600-8)						
Acetone	18	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.4		0.99	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.1	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.84	J	0.15*	ug/kg	EPA 8260B	EPA 5035
Toluene	1.5		0.99	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.53	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	7.2	J	5.1*	ug/kg	EPA 8260B	EPA 5035
SBV-01-05 DUP (13-06-1600-9)						
TPH as Gasoline	0.069	HD,J	0.050*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	230	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	47	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	19	J	6.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.1		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.9	J	3.8*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.17	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.34	J	0.31*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.8		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	2.5		1.0	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.97	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.015	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.0066	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0028	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0053	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Chrysene	0.0082	J	0.0023*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (b) Fluoranthene	0.0045	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-01-31 (13-06-1600-10)						
Acetone	12	J	5.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.4		0.95	ug/kg	EPA 8260B	EPA 5035
Toluene	0.62	J	0.49*	ug/kg	EPA 8260B	EPA 5035

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-01-38 (13-06-1600-11)						
TPH as Gasoline	0.11	HD,J	0.052*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	8.3	J	7.0*	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	2.1	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	20	J	6.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.5		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	7.9	J	4.0*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.20	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.81	J	0.32*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.8		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	3.6		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.75	J	0.62*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.6	J	0.28*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.69	J	0.58*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	7.2	J	5.4*	ug/kg	EPA 8260B	EPA 5035
SBV-02-05 (13-06-1600-12)						
TPH as Motor Oil	43	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	11	HD	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	32	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.1		0.92	ug/kg	EPA 8260B	EPA 5035
2-Butanone	9.6	J	3.5*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.65	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.92	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	1.1		0.92	ug/kg	EPA 8260B	EPA 5035
Toluene	2.3		0.92	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.71	J	0.54*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.25*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	9.3	J	4.8*	ug/kg	EPA 8260B	EPA 5035
SBV-02-09 (13-06-1600-13)						
Acetone	25	J	6.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.1		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	7.3	J	3.8*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.59	J	0.31*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.5		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	3.1		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.72	J	0.59*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.3	J	0.27*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1600
Project Name: KP Chatsworth / WR1767-02
Received: 06/24/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-02-20 (13-06-1600-14)						
Acetone	16	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.1		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.1	J	3.8*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.2		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	2.0		1.0	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.71	J	0.27*	ug/kg	EPA 8260B	EPA 5035
SBV-02-30 (13-06-1600-15)						
Benzene	0.81	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.55	J	0.44*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.25	J	0.23*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-GW	**13-06-1600-16-F**	**06/24/13 11:16**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 11:17**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-2	**13-06-1600-18-F**	**06/24/13 15:37**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:12**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-286-27**	**N/A**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:34**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-GW	**13-06-1600-16-F**	**06/24/13 11:16**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 11:17**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-2	**13-06-1600-18-F**	**06/24/13 15:37**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:12**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-296-138**	**N/A**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:34**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-A**	**06/24/13 10:05**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:44**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	9.5	25	7.0	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-A**	**06/24/13 10:30**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:59**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-A**	**06/24/13 10:40**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:15**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-A**	**06/24/13 10:15**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 06:30**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	230	25	7.0	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-31	**13-06-1600-10-A**	**06/24/13 11:10**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:30**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-38	**13-06-1600-11-A**	**06/24/13 11:40**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:46**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	8.3	25	7.0	1	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-A**	**06/24/13 14:10**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 07:32**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	43	25	7.0	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-A**	**06/24/13 14:20**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 05:43**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-A**	**06/24/13 14:35**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 05:59**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-30	**13-06-1600-15-A**	**06/24/13 14:50**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 06:14**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-475**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:06**	**130625B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-A**	**06/24/13 10:05**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:44**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	1.7	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	81	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-A**	**06/24/13 10:30**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 21:59**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	90	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-A**	**06/24/13 10:40**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:15**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-A**	**06/24/13 10:15**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 06:30**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	47	5.0	1.6	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-31	**13-06-1600-10-A**	**06/24/13 11:10**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:30**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	83	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-38	**13-06-1600-11-A**	**06/24/13 11:40**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 22:46**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	2.1	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-A**	**06/24/13 14:10**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 07:32**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	11	5.0	1.6	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-A**	**06/24/13 14:20**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 05:43**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-A**	**06/24/13 14:35**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 05:59**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-30	**13-06-1600-15-A**	**06/24/13 14:50**	**Soil**	**GC 47**	**06/25/13**	**06/26/13 06:14**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	78	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-557**	**N/A**	**Soil**	**GC 47**	**06/25/13**	**06/25/13 18:06**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	91	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-GW	**13-06-1600-16-E**	**06/24/13 11:16**	**Aqueous**	**GC 25**	**06/25/13**	**06/25/13 20:10**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	82	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-2	**13-06-1600-18-E**	**06/24/13 15:37**	**Aqueous**	**GC 25**	**06/25/13**	**06/25/13 20:44**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	85	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-704-430**	**N/A**	**Aqueous**	**GC 25**	**06/25/13**	**06/25/13 11:45**	**130625B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	87	38-134	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-I**	**06/24/13 10:05**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 17:37**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.16	0.26	0.052	1.04	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-I**	**06/24/13 10:30**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 18:10**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.24	0.048	0.952	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-I**	**06/24/13 10:40**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 18:43**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.30	0.060	1.2	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-I**	**06/24/13 10:15**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 19:16**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.069	0.25	0.050	0.992	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-31	**13-06-1600-10-I**	**06/24/13 11:10**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 20:55**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.051	1.01	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-38	**13-06-1600-11-I**	**06/24/13 11:40**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 21:28**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.11	0.26	0.052	1.04	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-I**	**06/24/13 14:10**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 22:00**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.051	1.01	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-I**	**06/24/13 14:20**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 22:33**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.26	0.052	1.04	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-I**	**06/24/13 14:35**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 23:06**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.26	0.052	1.04	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-30	**13-06-1600-15-I**	**06/24/13 14:50**	**Soil**	**GC 4**	**06/24/13**	**06/26/13 23:39**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.22	0.044	0.876	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-285-4759**	**N/A**	**Soil**	**GC 4**	**06/26/13**	**06/26/13 12:40**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-05-02	**13-06-1600-1-A**	**06/24/13 07:30**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:09**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.44	0.750	0.259	1	
Barium	95.5	0.500	0.154	1	
Beryllium	0.323	0.250	0.137	1	
Cadmium	1.58	0.500	0.135	1	
Chromium	15.9	0.250	0.142	1	
Cobalt	7.46	0.250	0.148	1	
Copper	14.0	0.500	0.135	1	
Lead	2.98	0.500	0.132	1	
Molybdenum	2.62	0.250	0.132	1	
Nickel	19.8	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	35.4	0.250	0.141	1	
Zinc	42.4	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-05-05	**13-06-1600-2-A**	**06/24/13 07:40**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:10**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.47	0.750	0.259	1	
Barium	101	0.500	0.154	1	
Beryllium	0.370	0.250	0.137	1	
Cadmium	2.07	0.500	0.135	1	
Chromium	18.0	0.250	0.142	1	
Cobalt	6.95	0.250	0.148	1	
Copper	15.0	0.500	0.135	1	
Lead	3.26	0.500	0.132	1	
Molybdenum	3.00	0.250	0.132	1	
Nickel	22.8	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	41.7	0.250	0.141	1	
Zinc	43.4	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-02	**13-06-1600-3-A**	**06/24/13 08:15**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:11**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.99	0.750	0.259	1	
Barium	112	0.500	0.154	1	
Beryllium	0.400	0.250	0.137	1	
Cadmium	2.10	0.500	0.135	1	
Chromium	19.3	0.250	0.142	1	
Cobalt	8.16	0.250	0.148	1	
Copper	17.5	0.500	0.135	1	
Lead	3.80	0.500	0.132	1	
Molybdenum	3.55	0.250	0.132	1	
Nickel	25.5	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	42.8	0.250	0.141	1	
Zinc	49.4	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-05	**13-06-1600-4-A**	**06/24/13 08:25**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:12**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.39	0.750	0.259	1	
Barium	102	0.500	0.154	1	
Beryllium	0.371	0.250	0.137	1	
Cadmium	1.94	0.500	0.135	1	
Chromium	17.7	0.250	0.142	1	
Cobalt	7.43	0.250	0.148	1	
Copper	15.9	0.500	0.135	1	
Lead	3.46	0.500	0.132	1	
Molybdenum	3.22	0.250	0.132	1	
Nickel	23.2	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	40.4	0.250	0.141	1	
Zinc	44.9	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-05DUP	**13-06-1600-5-A**	**06/24/13 08:30**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:14**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.46	0.750	0.259	1	
Barium	98.6	0.500	0.154	1	
Beryllium	0.342	0.250	0.137	1	
Cadmium	1.97	0.500	0.135	1	
Chromium	17.0	0.250	0.142	1	
Cobalt	6.94	0.250	0.148	1	
Copper	15.1	0.500	0.135	1	
Lead	3.17	0.500	0.132	1	
Molybdenum	4.24	0.250	0.132	1	
Nickel	23.4	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	39.4	0.250	0.141	1	
Zinc	43.1	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-16971**	**N/A**	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 17:34**	**130626L03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	ND	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-05-02	**13-06-1600-1-A**	**06/24/13 07:30**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:41**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00679	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-05-05	**13-06-1600-2-A**	**06/24/13 07:40**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:47**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-02	**13-06-1600-3-A**	**06/24/13 08:15**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:49**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00753	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-05	**13-06-1600-4-A**	**06/24/13 08:25**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:52**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-04-05DUP	**13-06-1600-5-A**	**06/24/13 08:30**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:54**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9389**	**N/A**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:20**	**130626L06**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-A**	**06/24/13 10:05**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 21:32**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	50-130	
2,4,5,6-Tetrachloro-m-Xylene	81	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-A**	**06/24/13 10:30**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 21:51**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-130	
2,4,5,6-Tetrachloro-m-Xylene	83	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-A**	**06/24/13 10:40**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 22:09**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	50-130	
2,4,5,6-Tetrachloro-m-Xylene	78	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-A**	**06/24/13 10:15**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 22:27**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	96	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-A**	**06/24/13 14:10**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 22:44**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-A**	**06/24/13 14:20**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 23:20**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-130	
2,4,5,6-Tetrachloro-m-Xylene	88	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-A**	**06/24/13 14:35**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 23:38**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	68	50-130	
2,4,5,6-Tetrachloro-m-Xylene	65	50-130	

Method Blank	099-12-535-2146	N/A	Soil	GC 58	06/26/13	06/28/13 11:04	130626L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	119	50-130	
2,4,5,6-Tetrachloro-m-Xylene	107	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-A**	**06/24/13 10:05**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 05:19**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	60	14-146	
Nitrobenzene-d5	76	18-162	
p-Terphenyl-d14	74	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-A**	**06/24/13 10:30**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 04:33**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	14-146	
Nitrobenzene-d5	95	18-162	
p-Terphenyl-d14	94	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-A**	**06/24/13 10:40**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 17:39**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	73	14-146	
Nitrobenzene-d5	89	18-162	
p-Terphenyl-d14	89	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-A**	**06/24/13 10:15**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/30/13 01:13**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.015	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.0066	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0028	0.020	0.0020	1	J
Pyrene	0.0053	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	0.0082	0.020	0.0023	1	J
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	0.0045	0.020	0.0020	1	J
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	92	14-146	
Nitrobenzene-d5	102	18-162	
p-Terphenyl-d14	110	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-31	**13-06-1600-10-A**	**06/24/13 11:10**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 18:03**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	94	14-146	
Nitrobenzene-d5	108	18-162	
p-Terphenyl-d14	120	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-A**	**06/24/13 14:10**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/30/13 00:27**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	14-146	
Nitrobenzene-d5	94	18-162	
p-Terphenyl-d14	108	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-A**	**06/24/13 14:20**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 18:26**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	53	14-146	
Nitrobenzene-d5	66	18-162	
p-Terphenyl-d14	55	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-A**	**06/24/13 14:35**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 18:49**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	51	14-146	
Nitrobenzene-d5	60	18-162	
p-Terphenyl-d14	60	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-30	**13-06-1600-15-A**	**06/24/13 14:50**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 04:56**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	49	14-146	
Nitrobenzene-d5	53	18-162	
p-Terphenyl-d14	42	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-1720**	**N/A**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 17:16**	**130626L13**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	14-146	
Nitrobenzene-d5	88	18-162	
p-Terphenyl-d14	114	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05	**13-06-1600-6-H**	**06/24/13 10:05**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 20:57**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	46	5.8	0.924	J
Benzene	2.1	0.92	0.12	0.924	
Bromobenzene	ND	0.92	0.19	0.924	
Bromochloromethane	ND	1.8	0.64	0.924	
Bromodichloromethane	ND	0.92	0.22	0.924	
Bromoform	ND	4.6	0.73	0.924	
Bromomethane	ND	18	8.7	0.924	
2-Butanone	5.9	18	3.5	0.924	J
n-Butylbenzene	0.18	0.92	0.14	0.924	J
sec-Butylbenzene	ND	0.92	0.53	0.924	
tert-Butylbenzene	ND	0.92	0.14	0.924	
Carbon Disulfide	ND	9.2	0.28	0.924	
Carbon Tetrachloride	ND	0.92	0.26	0.924	
Chlorobenzene	ND	0.92	0.21	0.924	
Chloroethane	ND	1.8	1.7	0.924	
Chloroform	ND	0.92	0.22	0.924	
Chloromethane	ND	18	0.64	0.924	
2-Chlorotoluene	ND	0.92	0.21	0.924	
4-Chlorotoluene	ND	0.92	0.20	0.924	
Dibromochloromethane	ND	1.8	0.53	0.924	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.924	
1,2-Dibromoethane	ND	0.92	0.24	0.924	
Dibromomethane	ND	0.92	0.72	0.924	
1,2-Dichlorobenzene	ND	0.92	0.21	0.924	
1,3-Dichlorobenzene	ND	0.92	0.16	0.924	
1,4-Dichlorobenzene	ND	0.92	0.21	0.924	
Dichlorodifluoromethane	ND	1.8	0.41	0.924	
1,1-Dichloroethane	ND	0.92	0.92	0.924	
1,2-Dichloroethane	ND	0.92	0.29	0.924	
1,1-Dichloroethene	ND	0.92	0.32	0.924	
c-1,2-Dichloroethene	ND	0.92	0.26	0.924	
t-1,2-Dichloroethene	ND	0.92	0.47	0.924	
1,2-Dichloropropane	ND	0.92	0.40	0.924	
1,3-Dichloropropane	ND	0.92	0.23	0.924	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.924	
1,1-Dichloropropene	ND	1.8	0.30	0.924	
c-1,3-Dichloropropene	ND	0.92	0.24	0.924	
t-1,3-Dichloropropene	ND	1.8	0.56	0.924	
Ethylbenzene	1.6	0.92	0.14	0.924	
2-Hexanone	ND	18	1.6	0.924	
Isopropylbenzene	ND	0.92	0.50	0.924	
p-Isopropyltoluene	0.82	0.92	0.58	0.924	J
Methylene Chloride	ND	9.2	1.2	0.924	
4-Methyl-2-Pentanone	ND	18	4.0	0.924	
Naphthalene	ND	9.2	0.75	0.924	
n-Propylbenzene	ND	1.8	0.46	0.924	
Styrene	ND	0.92	0.56	0.924	
1,1,1,2-Tetrachloroethane	ND	0.92	0.22	0.924	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.924	
Tetrachloroethene	ND	0.92	0.19	0.924	
Toluene	2.7	0.92	0.48	0.924	
1,2,3-Trichlorobenzene	ND	1.8	0.84	0.924	
1,2,4-Trichlorobenzene	ND	1.8	0.29	0.924	
1,1,1-Trichloroethane	ND	0.92	0.21	0.924	
1,1,2-Trichloroethane	ND	0.92	0.88	0.924	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	0.33	0.924	
Trichloroethene	ND	1.8	0.28	0.924	
Trichlorofluoromethane	ND	9.2	0.35	0.924	
1,2,3-Trichloropropane	ND	1.8	0.63	0.924	
1,2,4-Trimethylbenzene	0.62	1.8	0.54	0.924	J
1,3,5-Trimethylbenzene	ND	1.8	0.51	0.924	
Vinyl Acetate	ND	9.2	4.4	0.924	
Vinyl Chloride	ND	0.92	0.46	0.924	
p/m-Xylene	1.2	1.8	0.25	0.924	J
o-Xylene	0.57	0.92	0.51	0.924	J
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.924	
Tert-Butyl Alcohol (TBA)	ND	18	4.8	0.924	
Diisopropyl Ether (DIPE)	ND	0.92	0.45	0.924	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	0.47	0.924	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	0.33	0.924	
Ethanol	ND	460	77	0.924	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 3 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-12	**13-06-1600-7-H**	**06/24/13 10:30**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 21:26**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	24	49	6.1	0.975	J
Benzene	2.9	0.98	0.13	0.975	
Bromobenzene	ND	0.98	0.20	0.975	
Bromochloromethane	ND	2.0	0.67	0.975	
Bromodichloromethane	ND	0.98	0.23	0.975	
Bromoform	ND	4.9	0.77	0.975	
Bromomethane	ND	20	9.2	0.975	
2-Butanone	5.9	20	3.7	0.975	J
n-Butylbenzene	ND	0.98	0.15	0.975	
sec-Butylbenzene	ND	0.98	0.56	0.975	
tert-Butylbenzene	ND	0.98	0.15	0.975	
Carbon Disulfide	0.37	9.8	0.30	0.975	J
Carbon Tetrachloride	ND	0.98	0.28	0.975	
Chlorobenzene	ND	0.98	0.22	0.975	
Chloroethane	ND	2.0	1.8	0.975	
Chloroform	ND	0.98	0.23	0.975	
Chloromethane	ND	20	0.67	0.975	
2-Chlorotoluene	ND	0.98	0.23	0.975	
4-Chlorotoluene	ND	0.98	0.21	0.975	
Dibromochloromethane	ND	2.0	0.56	0.975	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.975	
1,2-Dibromoethane	ND	0.98	0.25	0.975	
Dibromomethane	ND	0.98	0.76	0.975	
1,2-Dichlorobenzene	ND	0.98	0.22	0.975	
1,3-Dichlorobenzene	ND	0.98	0.17	0.975	
1,4-Dichlorobenzene	ND	0.98	0.22	0.975	
Dichlorodifluoromethane	ND	2.0	0.43	0.975	
1,1-Dichloroethane	ND	0.98	0.97	0.975	
1,2-Dichloroethane	ND	0.98	0.31	0.975	
1,1-Dichloroethene	ND	0.98	0.34	0.975	
c-1,2-Dichloroethene	ND	0.98	0.27	0.975	
t-1,2-Dichloroethene	ND	0.98	0.49	0.975	
1,2-Dichloropropane	ND	0.98	0.43	0.975	
1,3-Dichloropropane	ND	0.98	0.25	0.975	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.975	
1,1-Dichloropropene	ND	2.0	0.32	0.975	
c-1,3-Dichloropropene	ND	0.98	0.25	0.975	
t-1,3-Dichloropropene	ND	2.0	0.59	0.975	
Ethylbenzene	1.5	0.98	0.15	0.975	
2-Hexanone	ND	20	1.7	0.975	
Isopropylbenzene	ND	0.98	0.53	0.975	
p-Isopropyltoluene	ND	0.98	0.61	0.975	
Methylene Chloride	ND	9.8	1.3	0.975	
4-Methyl-2-Pentanone	ND	20	4.2	0.975	
Naphthalene	ND	9.8	0.79	0.975	
n-Propylbenzene	ND	2.0	0.49	0.975	
Styrene	ND	0.98	0.59	0.975	
1,1,1,2-Tetrachloroethane	ND	0.98	0.23	0.975	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.975	
Tetrachloroethene	ND	0.98	0.20	0.975	
Toluene	2.9	0.98	0.50	0.975	
1,2,3-Trichlorobenzene	ND	2.0	0.89	0.975	
1,2,4-Trichlorobenzene	ND	2.0	0.30	0.975	
1,1,1-Trichloroethane	ND	0.98	0.22	0.975	
1,1,2-Trichloroethane	ND	0.98	0.93	0.975	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.8	0.34	0.975	
Trichloroethene	ND	2.0	0.29	0.975	
Trichlorofluoromethane	ND	9.8	0.37	0.975	
1,2,3-Trichloropropane	ND	2.0	0.67	0.975	
1,2,4-Trimethylbenzene	ND	2.0	0.57	0.975	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.975	
Vinyl Acetate	ND	9.8	4.6	0.975	
Vinyl Chloride	ND	0.98	0.49	0.975	
p/m-Xylene	1.0	2.0	0.26	0.975	J
o-Xylene	ND	0.98	0.54	0.975	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.975	
Tert-Butyl Alcohol (TBA)	7.2	20	5.0	0.975	J
Diisopropyl Ether (DIPE)	ND	0.98	0.47	0.975	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	0.49	0.975	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	0.34	0.975	
Ethanol	ND	490	81	0.975	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 6 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-20	**13-06-1600-8-H**	**06/24/13 10:40**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 21:54**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	50	6.2	0.992	J
Benzene	1.4	0.99	0.13	0.992	
Bromobenzene	ND	0.99	0.21	0.992	
Bromochloromethane	ND	2.0	0.68	0.992	
Bromodichloromethane	ND	0.99	0.23	0.992	
Bromoform	ND	5.0	0.79	0.992	
Bromomethane	ND	20	9.3	0.992	
2-Butanone	5.1	20	3.7	0.992	J
n-Butylbenzene	ND	0.99	0.16	0.992	
sec-Butylbenzene	ND	0.99	0.57	0.992	
tert-Butylbenzene	ND	0.99	0.15	0.992	
Carbon Disulfide	ND	9.9	0.30	0.992	
Carbon Tetrachloride	ND	0.99	0.28	0.992	
Chlorobenzene	ND	0.99	0.22	0.992	
Chloroethane	ND	2.0	1.9	0.992	
Chloroform	ND	0.99	0.24	0.992	
Chloromethane	ND	20	0.68	0.992	
2-Chlorotoluene	ND	0.99	0.23	0.992	
4-Chlorotoluene	ND	0.99	0.21	0.992	
Dibromochloromethane	ND	2.0	0.57	0.992	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	0.992	
1,2-Dibromoethane	ND	0.99	0.25	0.992	
Dibromomethane	ND	0.99	0.77	0.992	
1,2-Dichlorobenzene	ND	0.99	0.23	0.992	
1,3-Dichlorobenzene	ND	0.99	0.17	0.992	
1,4-Dichlorobenzene	ND	0.99	0.22	0.992	
Dichlorodifluoromethane	ND	2.0	0.44	0.992	
1,1-Dichloroethane	ND	0.99	0.99	0.992	
1,2-Dichloroethane	ND	0.99	0.31	0.992	
1,1-Dichloroethene	ND	0.99	0.34	0.992	
c-1,2-Dichloroethene	ND	0.99	0.28	0.992	
t-1,2-Dichloroethene	ND	0.99	0.50	0.992	
1,2-Dichloropropane	ND	0.99	0.43	0.992	
1,3-Dichloropropane	ND	0.99	0.25	0.992	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	0.992	
1,1-Dichloropropene	ND	2.0	0.33	0.992	
c-1,3-Dichloropropene	ND	0.99	0.25	0.992	
t-1,3-Dichloropropene	ND	2.0	0.60	0.992	
Ethylbenzene	0.84	0.99	0.15	0.992	J
2-Hexanone	ND	20	1.7	0.992	
Isopropylbenzene	ND	0.99	0.54	0.992	
p-Isopropyltoluene	ND	0.99	0.62	0.992	
Methylene Chloride	ND	9.9	1.3	0.992	
4-Methyl-2-Pentanone	ND	20	4.3	0.992	
Naphthalene	ND	9.9	0.81	0.992	
n-Propylbenzene	ND	2.0	0.50	0.992	
Styrene	ND	0.99	0.60	0.992	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	0.992	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.992	
Tetrachloroethene	ND	0.99	0.21	0.992	
Toluene	1.5	0.99	0.51	0.992	
1,2,3-Trichlorobenzene	ND	2.0	0.91	0.992	
1,2,4-Trichlorobenzene	ND	2.0	0.31	0.992	
1,1,1-Trichloroethane	ND	0.99	0.22	0.992	
1,1,2-Trichloroethane	ND	0.99	0.94	0.992	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	0.992	
Trichloroethene	ND	2.0	0.30	0.992	
Trichlorofluoromethane	ND	9.9	0.37	0.992	
1,2,3-Trichloropropane	ND	2.0	0.68	0.992	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.992	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.992	
Vinyl Acetate	ND	9.9	4.7	0.992	
Vinyl Chloride	ND	0.99	0.50	0.992	
p/m-Xylene	0.53	2.0	0.27	0.992	J
o-Xylene	ND	0.99	0.55	0.992	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.992	
Tert-Butyl Alcohol (TBA)	7.2	20	5.1	0.992	J
Diisopropyl Ether (DIPE)	ND	0.99	0.48	0.992	
Ethyl-t-Butyl Ether (ETBE)	ND	0.99	0.50	0.992	
Tert-Amyl-Methyl Ether (TAME)	ND	0.99	0.35	0.992	
Ethanol	ND	500	83	0.992	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 9 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-05 DUP	**13-06-1600-9-H**	**06/24/13 10:15**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 22:23**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	19	50	6.3	1.01	J
Benzene	2.1	1.0	0.13	1.01	
Bromobenzene	ND	1.0	0.21	1.01	
Bromochloromethane	ND	2.0	0.70	1.01	
Bromodichloromethane	ND	1.0	0.24	1.01	
Bromoform	ND	5.0	0.80	1.01	
Bromomethane	ND	20	9.5	1.01	
2-Butanone	4.9	20	3.8	1.01	J
n-Butylbenzene	0.17	1.0	0.16	1.01	J
sec-Butylbenzene	ND	1.0	0.58	1.01	
tert-Butylbenzene	ND	1.0	0.15	1.01	
Carbon Disulfide	0.34	10	0.31	1.01	J
Carbon Tetrachloride	ND	1.0	0.29	1.01	
Chlorobenzene	ND	1.0	0.23	1.01	
Chloroethane	ND	2.0	1.9	1.01	
Chloroform	ND	1.0	0.24	1.01	
Chloromethane	ND	20	0.69	1.01	
2-Chlorotoluene	ND	1.0	0.23	1.01	
4-Chlorotoluene	ND	1.0	0.22	1.01	
Dibromochloromethane	ND	2.0	0.58	1.01	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.8	1.01	
1,2-Dibromoethane	ND	1.0	0.26	1.01	
Dibromomethane	ND	1.0	0.78	1.01	
1,2-Dichlorobenzene	ND	1.0	0.23	1.01	
1,3-Dichlorobenzene	ND	1.0	0.18	1.01	
1,4-Dichlorobenzene	ND	1.0	0.22	1.01	
Dichlorodifluoromethane	ND	2.0	0.45	1.01	
1,1-Dichloroethane	ND	1.0	1.0	1.01	
1,2-Dichloroethane	ND	1.0	0.32	1.01	
1,1-Dichloroethene	ND	1.0	0.35	1.01	
c-1,2-Dichloroethene	ND	1.0	0.28	1.01	
t-1,2-Dichloroethene	ND	1.0	0.51	1.01	
1,2-Dichloropropane	ND	1.0	0.44	1.01	
1,3-Dichloropropane	ND	1.0	0.26	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1.01	
1,1-Dichloropropene	ND	2.0	0.33	1.01	
c-1,3-Dichloropropene	ND	1.0	0.26	1.01	
t-1,3-Dichloropropene	ND	2.0	0.61	1.01	
Ethylbenzene	1.8	1.0	0.15	1.01	
2-Hexanone	ND	20	1.8	1.01	
Isopropylbenzene	ND	1.0	0.55	1.01	
p-Isopropyltoluene	ND	1.0	0.64	1.01	
Methylene Chloride	ND	10	1.4	1.01	
4-Methyl-2-Pentanone	ND	20	4.4	1.01	
Naphthalene	ND	10	0.82	1.01	
n-Propylbenzene	ND	2.0	0.51	1.01	
Styrene	ND	1.0	0.61	1.01	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.01	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.01	
Tetrachloroethene	ND	1.0	0.21	1.01	
Toluene	2.5	1.0	0.52	1.01	
1,2,3-Trichlorobenzene	ND	2.0	0.92	1.01	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.01	
1,1,1-Trichloroethane	ND	1.0	0.23	1.01	
1,1,2-Trichloroethane	ND	1.0	0.96	1.01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.01	
Trichloroethene	ND	2.0	0.30	1.01	
Trichlorofluoromethane	ND	10	0.38	1.01	
1,2,3-Trichloropropane	ND	2.0	0.69	1.01	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.01	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.01	
Vinyl Acetate	ND	10	4.8	1.01	
Vinyl Chloride	ND	1.0	0.51	1.01	
p/m-Xylene	0.97	2.0	0.27	1.01	J
o-Xylene	ND	1.0	0.56	1.01	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.01	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1.01	
Diisopropyl Ether (DIPE)	ND	1.0	0.49	1.01	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1.01	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.36	1.01	
Ethanol	ND	500	84	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 12 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-31	**13-06-1600-10-H**	**06/24/13 11:10**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 22:52**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	12	48	5.9	0.951	J
Benzene	1.4	0.95	0.12	0.951	
Bromobenzene	ND	0.95	0.20	0.951	
Bromochloromethane	ND	1.9	0.66	0.951	
Bromodichloromethane	ND	0.95	0.22	0.951	
Bromoform	ND	4.8	0.76	0.951	
Bromomethane	ND	19	9.0	0.951	
2-Butanone	ND	19	3.6	0.951	
n-Butylbenzene	ND	0.95	0.15	0.951	
sec-Butylbenzene	ND	0.95	0.55	0.951	
tert-Butylbenzene	ND	0.95	0.14	0.951	
Carbon Disulfide	ND	9.5	0.29	0.951	
Carbon Tetrachloride	ND	0.95	0.27	0.951	
Chlorobenzene	ND	0.95	0.21	0.951	
Chloroethane	ND	1.9	1.8	0.951	
Chloroform	ND	0.95	0.23	0.951	
Chloromethane	ND	19	0.65	0.951	
2-Chlorotoluene	ND	0.95	0.22	0.951	
4-Chlorotoluene	ND	0.95	0.20	0.951	
Dibromochloromethane	ND	1.9	0.54	0.951	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.951	
1,2-Dibromoethane	ND	0.95	0.24	0.951	
Dibromomethane	ND	0.95	0.74	0.951	
1,2-Dichlorobenzene	ND	0.95	0.22	0.951	
1,3-Dichlorobenzene	ND	0.95	0.17	0.951	
1,4-Dichlorobenzene	ND	0.95	0.21	0.951	
Dichlorodifluoromethane	ND	1.9	0.42	0.951	
1,1-Dichloroethane	ND	0.95	0.95	0.951	
1,2-Dichloroethane	ND	0.95	0.30	0.951	
1,1-Dichloroethene	ND	0.95	0.33	0.951	
c-1,2-Dichloroethene	ND	0.95	0.27	0.951	
t-1,2-Dichloroethene	ND	0.95	0.48	0.951	
1,2-Dichloropropane	ND	0.95	0.42	0.951	
1,3-Dichloropropane	ND	0.95	0.24	0.951	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.31	0.951	
1,1-Dichloropropene	ND	1.9	0.31	0.951	
c-1,3-Dichloropropene	ND	0.95	0.24	0.951	
t-1,3-Dichloropropene	ND	1.9	0.58	0.951	
Ethylbenzene	ND	0.95	0.14	0.951	
2-Hexanone	ND	19	1.7	0.951	
Isopropylbenzene	ND	0.95	0.52	0.951	
p-Isopropyltoluene	ND	0.95	0.60	0.951	
Methylene Chloride	ND	9.5	1.3	0.951	
4-Methyl-2-Pentanone	ND	19	4.1	0.951	
Naphthalene	ND	9.5	0.77	0.951	
n-Propylbenzene	ND	1.9	0.48	0.951	
Styrene	ND	0.95	0.57	0.951	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	0.951	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.951	
Tetrachloroethene	ND	0.95	0.20	0.951	
Toluene	0.62	0.95	0.49	0.951	J
1,2,3-Trichlorobenzene	ND	1.9	0.87	0.951	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.951	
1,1,1-Trichloroethane	ND	0.95	0.21	0.951	
1,1,2-Trichloroethane	ND	0.95	0.90	0.951	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.33	0.951	
Trichloroethene	ND	1.9	0.29	0.951	
Trichlorofluoromethane	ND	9.5	0.36	0.951	
1,2,3-Trichloropropane	ND	1.9	0.65	0.951	
1,2,4-Trimethylbenzene	ND	1.9	0.56	0.951	
1,3,5-Trimethylbenzene	ND	1.9	0.52	0.951	
Vinyl Acetate	ND	9.5	4.5	0.951	
Vinyl Chloride	ND	0.95	0.48	0.951	
p/m-Xylene	ND	1.9	0.25	0.951	
o-Xylene	ND	0.95	0.53	0.951	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.951	
Tert-Butyl Alcohol (TBA)	ND	19	4.9	0.951	
Diisopropyl Ether (DIPE)	ND	0.95	0.46	0.951	
Ethyl-t-Butyl Ether (ETBE)	ND	0.95	0.48	0.951	
Tert-Amyl-Methyl Ether (TAME)	ND	0.95	0.34	0.951	
Ethanol	ND	480	79	0.951	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 15 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 16 of 33

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-01-38	**13-06-1600-11-H**	**06/24/13 11:40**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 23:21**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	20	52	6.6	1.05	J
Benzene	3.5	1.0	0.14	1.05	
Bromobenzene	ND	1.0	0.22	1.05	
Bromochloromethane	ND	2.1	0.72	1.05	
Bromodichloromethane	ND	1.0	0.24	1.05	
Bromoform	ND	5.2	0.83	1.05	
Bromomethane	ND	21	9.9	1.05	
2-Butanone	7.9	21	4.0	1.05	J
n-Butylbenzene	0.20	1.0	0.16	1.05	J
sec-Butylbenzene	ND	1.0	0.61	1.05	
tert-Butylbenzene	ND	1.0	0.16	1.05	
Carbon Disulfide	0.81	10	0.32	1.05	J
Carbon Tetrachloride	ND	1.0	0.30	1.05	
Chlorobenzene	ND	1.0	0.24	1.05	
Chloroethane	ND	2.1	2.0	1.05	
Chloroform	ND	1.0	0.25	1.05	
Chloromethane	ND	21	0.72	1.05	
2-Chlorotoluene	ND	1.0	0.24	1.05	
4-Chlorotoluene	ND	1.0	0.22	1.05	
Dibromochloromethane	ND	2.1	0.60	1.05	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.05	
1,2-Dibromoethane	ND	1.0	0.27	1.05	
Dibromomethane	ND	1.0	0.81	1.05	
1,2-Dichlorobenzene	ND	1.0	0.24	1.05	
1,3-Dichlorobenzene	ND	1.0	0.18	1.05	
1,4-Dichlorobenzene	ND	1.0	0.23	1.05	
Dichlorodifluoromethane	ND	2.1	0.47	1.05	
1,1-Dichloroethane	ND	1.0	1.0	1.05	
1,2-Dichloroethane	ND	1.0	0.33	1.05	
1,1-Dichloroethene	ND	1.0	0.36	1.05	
c-1,2-Dichloroethene	ND	1.0	0.29	1.05	
t-1,2-Dichloroethene	ND	1.0	0.53	1.05	
1,2-Dichloropropane	ND	1.0	0.46	1.05	
1,3-Dichloropropane	ND	1.0	0.27	1.05	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.35	1.05	
1,1-Dichloropropene	ND	2.1	0.34	1.05	
c-1,3-Dichloropropene	ND	1.0	0.27	1.05	
t-1,3-Dichloropropene	ND	2.1	0.64	1.05	
Ethylbenzene	1.8	1.0	0.16	1.05	
2-Hexanone	ND	21	1.9	1.05	
Isopropylbenzene	ND	1.0	0.57	1.05	
p-Isopropyltoluene	ND	1.0	0.66	1.05	
Methylene Chloride	ND	10	1.4	1.05	
4-Methyl-2-Pentanone	ND	21	4.5	1.05	
Naphthalene	ND	10	0.85	1.05	
n-Propylbenzene	ND	2.1	0.53	1.05	
Styrene	ND	1.0	0.63	1.05	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.05	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.05	
Tetrachloroethene	ND	1.0	0.22	1.05	
Toluene	3.6	1.0	0.54	1.05	
1,2,3-Trichlorobenzene	ND	2.1	0.96	1.05	
1,2,4-Trichlorobenzene	ND	2.1	0.33	1.05	
1,1,1-Trichloroethane	ND	1.0	0.24	1.05	
1,1,2-Trichloroethane	ND	1.0	1.0	1.05	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.37	1.05	
Trichloroethene	ND	2.1	0.32	1.05	
Trichlorofluoromethane	ND	10	0.39	1.05	
1,2,3-Trichloropropane	ND	2.1	0.72	1.05	
1,2,4-Trimethylbenzene	0.75	2.1	0.62	1.05	J
1,3,5-Trimethylbenzene	ND	2.1	0.58	1.05	
Vinyl Acetate	ND	10	5.0	1.05	
Vinyl Chloride	ND	1.0	0.53	1.05	
p/m-Xylene	1.6	2.1	0.28	1.05	J
o-Xylene	0.69	1.0	0.58	1.05	J
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.31	1.05	
Tert-Butyl Alcohol (TBA)	7.2	21	5.4	1.05	J
Diisopropyl Ether (DIPE)	ND	1.0	0.51	1.05	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.53	1.05	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.37	1.05	
Ethanol	ND	520	88	1.05	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 18 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-05	**13-06-1600-12-H**	**06/24/13 14:10**	**Soil**	**GC/MS BB**	**06/24/13**	**06/25/13 23:49**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	32	46	5.8	0.923	J
Benzene	2.1	0.92	0.12	0.923	
Bromobenzene	ND	0.92	0.19	0.923	
Bromochloromethane	ND	1.8	0.64	0.923	
Bromodichloromethane	ND	0.92	0.21	0.923	
Bromoform	ND	4.6	0.73	0.923	
Bromomethane	ND	18	8.7	0.923	
2-Butanone	9.6	18	3.5	0.923	J
n-Butylbenzene	ND	0.92	0.14	0.923	
sec-Butylbenzene	ND	0.92	0.53	0.923	
tert-Butylbenzene	ND	0.92	0.14	0.923	
Carbon Disulfide	0.65	9.2	0.28	0.923	J
Carbon Tetrachloride	ND	0.92	0.26	0.923	
Chlorobenzene	ND	0.92	0.21	0.923	
Chloroethane	ND	1.8	1.7	0.923	
Chloroform	ND	0.92	0.22	0.923	
Chloromethane	ND	18	0.64	0.923	
2-Chlorotoluene	ND	0.92	0.21	0.923	
4-Chlorotoluene	ND	0.92	0.20	0.923	
Dibromochloromethane	ND	1.8	0.53	0.923	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.923	
1,2-Dibromoethane	ND	0.92	0.24	0.923	
Dibromomethane	ND	0.92	0.72	0.923	
1,2-Dichlorobenzene	ND	0.92	0.21	0.923	
1,3-Dichlorobenzene	ND	0.92	0.16	0.923	
1,4-Dichlorobenzene	ND	0.92	0.20	0.923	
Dichlorodifluoromethane	ND	1.8	0.41	0.923	
1,1-Dichloroethane	ND	0.92	0.92	0.923	
1,2-Dichloroethane	ND	0.92	0.29	0.923	
1,1-Dichloroethene	ND	0.92	0.32	0.923	
c-1,2-Dichloroethene	ND	0.92	0.26	0.923	
t-1,2-Dichloroethene	ND	0.92	0.47	0.923	
1,2-Dichloropropane	ND	0.92	0.40	0.923	
1,3-Dichloropropane	ND	0.92	0.23	0.923	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.923	
1,1-Dichloropropene	ND	1.8	0.30	0.923	
c-1,3-Dichloropropene	ND	0.92	0.23	0.923	
t-1,3-Dichloropropene	ND	1.8	0.56	0.923	
Ethylbenzene	1.1	0.92	0.14	0.923	
2-Hexanone	ND	18	1.6	0.923	
Isopropylbenzene	ND	0.92	0.50	0.923	
p-Isopropyltoluene	ND	0.92	0.58	0.923	
Methylene Chloride	ND	9.2	1.2	0.923	
4-Methyl-2-Pentanone	ND	18	4.0	0.923	
Naphthalene	ND	9.2	0.75	0.923	
n-Propylbenzene	ND	1.8	0.46	0.923	
Styrene	ND	0.92	0.56	0.923	
1,1,1,2-Tetrachloroethane	ND	0.92	0.22	0.923	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.923	
Tetrachloroethene	1.1	0.92	0.19	0.923	
Toluene	2.3	0.92	0.48	0.923	
1,2,3-Trichlorobenzene	ND	1.8	0.84	0.923	
1,2,4-Trichlorobenzene	ND	1.8	0.29	0.923	
1,1,1-Trichloroethane	ND	0.92	0.21	0.923	
1,1,2-Trichloroethane	ND	0.92	0.88	0.923	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	0.32	0.923	
Trichloroethene	ND	1.8	0.28	0.923	
Trichlorofluoromethane	ND	9.2	0.35	0.923	
1,2,3-Trichloropropane	ND	1.8	0.63	0.923	
1,2,4-Trimethylbenzene	0.71	1.8	0.54	0.923	J
1,3,5-Trimethylbenzene	ND	1.8	0.51	0.923	
Vinyl Acetate	ND	9.2	4.4	0.923	
Vinyl Chloride	ND	0.92	0.46	0.923	
p/m-Xylene	1.0	1.8	0.25	0.923	J
o-Xylene	ND	0.92	0.51	0.923	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.923	
Tert-Butyl Alcohol (TBA)	9.3	18	4.8	0.923	J
Diisopropyl Ether (DIPE)	ND	0.92	0.45	0.923	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	0.47	0.923	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	0.33	0.923	
Ethanol	ND	460	77	0.923	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 21 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-09	**13-06-1600-13-H**	**06/24/13 14:20**	**Soil**	**GC/MS BB**	**06/24/13**	**06/26/13 00:18**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	50	6.3	1.01	J
Benzene	3.1	1.0	0.13	1.01	
Bromobenzene	ND	1.0	0.21	1.01	
Bromochloromethane	ND	2.0	0.70	1.01	
Bromodichloromethane	ND	1.0	0.24	1.01	
Bromoform	ND	5.0	0.80	1.01	
Bromomethane	ND	20	9.5	1.01	
2-Butanone	7.3	20	3.8	1.01	J
n-Butylbenzene	ND	1.0	0.16	1.01	
sec-Butylbenzene	ND	1.0	0.58	1.01	
tert-Butylbenzene	ND	1.0	0.15	1.01	
Carbon Disulfide	0.59	10	0.31	1.01	J
Carbon Tetrachloride	ND	1.0	0.29	1.01	
Chlorobenzene	ND	1.0	0.23	1.01	
Chloroethane	ND	2.0	1.9	1.01	
Chloroform	ND	1.0	0.24	1.01	
Chloromethane	ND	20	0.69	1.01	
2-Chlorotoluene	ND	1.0	0.23	1.01	
4-Chlorotoluene	ND	1.0	0.22	1.01	
Dibromochloromethane	ND	2.0	0.58	1.01	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.8	1.01	
1,2-Dibromoethane	ND	1.0	0.26	1.01	
Dibromomethane	ND	1.0	0.78	1.01	
1,2-Dichlorobenzene	ND	1.0	0.23	1.01	
1,3-Dichlorobenzene	ND	1.0	0.18	1.01	
1,4-Dichlorobenzene	ND	1.0	0.22	1.01	
Dichlorodifluoromethane	ND	2.0	0.45	1.01	
1,1-Dichloroethane	ND	1.0	1.0	1.01	
1,2-Dichloroethane	ND	1.0	0.32	1.01	
1,1-Dichloroethene	ND	1.0	0.35	1.01	
c-1,2-Dichloroethene	ND	1.0	0.28	1.01	
t-1,2-Dichloroethene	ND	1.0	0.51	1.01	
1,2-Dichloropropane	ND	1.0	0.44	1.01	
1,3-Dichloropropane	ND	1.0	0.26	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1.01	
1,1-Dichloropropene	ND	2.0	0.33	1.01	
c-1,3-Dichloropropene	ND	1.0	0.26	1.01	
t-1,3-Dichloropropene	ND	2.0	0.61	1.01	
Ethylbenzene	1.5	1.0	0.15	1.01	
2-Hexanone	ND	20	1.8	1.01	
Isopropylbenzene	ND	1.0	0.55	1.01	
p-Isopropyltoluene	ND	1.0	0.64	1.01	
Methylene Chloride	ND	10	1.4	1.01	
4-Methyl-2-Pentanone	ND	20	4.4	1.01	
Naphthalene	ND	10	0.82	1.01	
n-Propylbenzene	ND	2.0	0.51	1.01	
Styrene	ND	1.0	0.61	1.01	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.01	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.01	
Tetrachloroethene	ND	1.0	0.21	1.01	
Toluene	3.1	1.0	0.52	1.01	
1,2,3-Trichlorobenzene	ND	2.0	0.92	1.01	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.01	
1,1,1-Trichloroethane	ND	1.0	0.23	1.01	
1,1,2-Trichloroethane	ND	1.0	0.96	1.01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.01	
Trichloroethene	ND	2.0	0.30	1.01	
Trichlorofluoromethane	ND	10	0.38	1.01	
1,2,3-Trichloropropane	ND	2.0	0.69	1.01	
1,2,4-Trimethylbenzene	0.72	2.0	0.59	1.01	J
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.01	
Vinyl Acetate	ND	10	4.8	1.01	
Vinyl Chloride	ND	1.0	0.51	1.01	
p/m-Xylene	1.3	2.0	0.27	1.01	J
o-Xylene	ND	1.0	0.56	1.01	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.01	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1.01	
Diisopropyl Ether (DIPE)	ND	1.0	0.49	1.01	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1.01	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.36	1.01	
Ethanol	ND	500	84	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 24 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-20	**13-06-1600-14-H**	**06/24/13 14:35**	**Soil**	**GC/MS BB**	**06/24/13**	**06/26/13 00:47**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	16	50	6.2	1	J
Benzene	2.1	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	6.1	20	3.8	1	J
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	1.2	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	2.0	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	0.71	2.0	0.27	1	J
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 27 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	119	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-02-30	**13-06-1600-15-H**	**06/24/13 14:50**	**Soil**	**GC/MS BB**	**06/24/13**	**06/26/13 01:15**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	43	5.3	0.853	
Benzene	0.81	0.85	0.11	0.853	J
Bromobenzene	ND	0.85	0.18	0.853	
Bromochloromethane	ND	1.7	0.59	0.853	
Bromodichloromethane	ND	0.85	0.20	0.853	
Bromoform	ND	4.3	0.68	0.853	
Bromomethane	ND	17	8.0	0.853	
2-Butanone	ND	17	3.2	0.853	
n-Butylbenzene	ND	0.85	0.13	0.853	
sec-Butylbenzene	ND	0.85	0.49	0.853	
tert-Butylbenzene	ND	0.85	0.13	0.853	
Carbon Disulfide	ND	8.5	0.26	0.853	
Carbon Tetrachloride	ND	0.85	0.24	0.853	
Chlorobenzene	ND	0.85	0.19	0.853	
Chloroethane	ND	1.7	1.6	0.853	
Chloroform	ND	0.85	0.20	0.853	
Chloromethane	ND	17	0.59	0.853	
2-Chlorotoluene	ND	0.85	0.20	0.853	
4-Chlorotoluene	ND	0.85	0.18	0.853	
Dibromochloromethane	ND	1.7	0.49	0.853	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.5	0.853	
1,2-Dibromoethane	ND	0.85	0.22	0.853	
Dibromomethane	ND	0.85	0.66	0.853	
1,2-Dichlorobenzene	ND	0.85	0.19	0.853	
1,3-Dichlorobenzene	ND	0.85	0.15	0.853	
1,4-Dichlorobenzene	ND	0.85	0.19	0.853	
Dichlorodifluoromethane	ND	1.7	0.38	0.853	
1,1-Dichloroethane	ND	0.85	0.85	0.853	
1,2-Dichloroethane	ND	0.85	0.27	0.853	
1,1-Dichloroethene	ND	0.85	0.30	0.853	
c-1,2-Dichloroethene	ND	0.85	0.24	0.853	
t-1,2-Dichloroethene	ND	0.85	0.43	0.853	
1,2-Dichloropropane	ND	0.85	0.37	0.853	
1,3-Dichloropropane	ND	0.85	0.22	0.853	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.3	0.28	0.853	
1,1-Dichloropropene	ND	1.7	0.28	0.853	
c-1,3-Dichloropropene	ND	0.85	0.22	0.853	
t-1,3-Dichloropropene	ND	1.7	0.52	0.853	
Ethylbenzene	ND	0.85	0.13	0.853	
2-Hexanone	ND	17	1.5	0.853	
Isopropylbenzene	ND	0.85	0.47	0.853	
p-Isopropyltoluene	ND	0.85	0.54	0.853	
Methylene Chloride	ND	8.5	1.1	0.853	
4-Methyl-2-Pentanone	ND	17	3.7	0.853	
Naphthalene	ND	8.5	0.69	0.853	
n-Propylbenzene	ND	1.7	0.43	0.853	
Styrene	ND	0.85	0.52	0.853	
1,1,1,2-Tetrachloroethane	ND	0.85	0.20	0.853	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	0.853	
Tetrachloroethene	ND	0.85	0.18	0.853	
Toluene	0.55	0.85	0.44	0.853	J
1,2,3-Trichlorobenzene	ND	1.7	0.78	0.853	
1,2,4-Trichlorobenzene	ND	1.7	0.26	0.853	
1,1,1-Trichloroethane	ND	0.85	0.19	0.853	
1,1,2-Trichloroethane	ND	0.85	0.81	0.853	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.5	0.30	0.853	
Trichloroethene	ND	1.7	0.26	0.853	
Trichlorofluoromethane	ND	8.5	0.32	0.853	
1,2,3-Trichloropropane	ND	1.7	0.58	0.853	
1,2,4-Trimethylbenzene	ND	1.7	0.50	0.853	
1,3,5-Trimethylbenzene	ND	1.7	0.47	0.853	
Vinyl Acetate	ND	8.5	4.0	0.853	
Vinyl Chloride	ND	0.85	0.43	0.853	
p/m-Xylene	0.25	1.7	0.23	0.853	J
o-Xylene	ND	0.85	0.47	0.853	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.853	
Tert-Butyl Alcohol (TBA)	ND	17	4.4	0.853	
Diisopropyl Ether (DIPE)	ND	0.85	0.41	0.853	
Ethyl-t-Butyl Ether (ETBE)	ND	0.85	0.43	0.853	
Tert-Amyl-Methyl Ether (TAME)	ND	0.85	0.30	0.853	
Ethanol	ND	430	71	0.853	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 30 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	97	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-256**	**N/A**	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 18:05**	**130625L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 33 of 33

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	94	79-133	
1,2-Dichloroethane-d4	104	71-155	
Toluene-d8	97	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-1-GW	**13-06-1600-16-A**	**06/24/13 11:16**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 14:33**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: KP Chatsworth / WR1767-02			Page 3 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	108	80-134	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-2	**13-06-1600-17-A**	**06/24/13 12:02**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 13:56**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 6 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	107	80-134	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-2	**13-06-1600-18-B**	**06/24/13 15:37**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 18:17**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 9 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	105	80-126	
1,2-Dichloroethane-d4	108	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1048**	**N/A**	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 13:15**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 12 of 12

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	104	80-126	
1,2-Dichloroethane-d4	107	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
Page 1 of 9

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1591-1	**Soil**	**GC 47**	**06/25/13**	**06/25/13 20:10**	**130625S02**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	313.3	78	284.2	71	64-130	10	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1591-1	**Soil**	**GC 47**	**06/25/13**	**06/25/13 19:40**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	459.9	115	458.8	115	64-130	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 3 of 9

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1594-1	**Aqueous**	**GC 25**	**06/25/13**	**06/25/13 13:25**	**130625S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	113.9	2000	2111	100	2018	95	68-122	4	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B

Project: KP Chatsworth / WR1767-02

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1634-2	**Soil**	**ICP 7300**	**06/26/13**	**06/26/13 19:15**	**130626S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	9.780	39	10.07	40	50-115	3	0-20	3
Arsenic	1.329	25.00	25.16	95	25.57	97	75-125	2	0-20	
Barium	62.94	25.00	88.46	102	89.89	108	75-125	2	0-20	
Beryllium	ND	25.00	25.99	104	26.53	106	75-125	2	0-20	
Cadmium	ND	25.00	25.00	100	25.53	102	75-125	2	0-20	
Chromium	7.418	25.00	32.92	102	34.06	107	75-125	3	0-20	
Cobalt	3.609	25.00	30.14	106	30.97	109	75-125	3	0-20	
Copper	5.513	25.00	30.67	101	31.20	103	75-125	2	0-20	
Lead	2.141	25.00	26.82	99	27.45	101	75-125	2	0-20	
Molybdenum	ND	25.00	24.51	98	24.99	100	75-125	2	0-20	
Nickel	4.722	25.00	31.52	107	32.49	111	75-125	3	0-20	
Selenium	ND	25.00	23.14	93	23.48	94	75-125	1	0-20	
Silver	ND	12.50	12.70	102	13.31	106	75-125	5	0-20	
Thallium	ND	25.00	16.52	66	19.41	78	75-125	16	0-20	3
Vanadium	10.55	25.00	35.01	98	35.89	101	75-125	2	0-20	
Zinc	13.72	25.00	39.79	104	39.94	105	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1634-2	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:27**	**130626S06**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7841	94	0.8208	98	71-137	5	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1587-26	**Soil**	**GC 58**	**06/26/13**	**06/28/13 14:21**	**130626S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	98.72	99	102.0	102	50-135	3	0-20	
Aroclor-1260	ND	100.0	88.98	89	93.24	93	50-135	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBV-01-05	**Soil**	**GC/MS EEE**	**06/26/13**	**06/28/13 16:29**	**130626S13**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.1742	87	0.1735	87	15-171	0	0-44	
2-Methylnaphthalene	ND	0.2000	0.1929	96	0.1929	96	28-160	0	0-39	
1-Methylnaphthalene	ND	0.2000	0.1797	90	0.1841	92	28-154	2	0-40	
Acenaphthylene	ND	0.2000	0.1754	88	0.1757	88	27-153	0	0-41	
Acenaphthene	ND	0.2000	0.1792	90	0.1778	89	33-147	1	0-38	
Fluorene	ND	0.2000	0.1819	91	0.1826	91	12-180	0	0-33	
Phenanthrene	ND	0.2000	0.1522	76	0.1489	74	26-152	2	0-29	
Anthracene	ND	0.2000	0.1600	80	0.1612	81	10-145	1	0-25	
Fluoranthene	ND	0.2000	0.1511	76	0.1506	75	20-158	0	0-31	
Pyrene	ND	0.2000	0.1636	82	0.1619	81	11-191	1	0-31	
Benzo (a) Anthracene	ND	0.2000	0.1691	85	0.1692	85	36-150	0	0-32	
Chrysene	ND	0.2000	0.1668	83	0.1659	83	21-189	1	0-29	
Benzo (k) Fluoranthene	ND	0.2000	0.1868	93	0.1799	90	40-148	4	0-32	
Benzo (b) Fluoranthene	ND	0.2000	0.1683	84	0.1675	84	39-147	1	0-28	
Benzo (a) Pyrene	ND	0.2000	0.1798	90	0.1795	90	36-168	0	0-26	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.1974	99	0.1953	98	22-160	1	0-26	
Dibenz (a,h) Anthracene	ND	0.2000	0.1601	80	0.1610	81	27-147	1	0-30	
Benzo (g,h,i) Perylene	ND	0.2000	0.1417	71	0.1421	71	10-152	0	0-28	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBG-1-GW	**Aqueous**	**GC/MS GGG**	**06/26/13**	**06/26/13 15:13**	**130626S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	78.35	157	80.85	162	70-130	3	0-20	3
Benzene	ND	50.00	55.83	112	52.43	105	78-120	6	0-20	
Bromobenzene	ND	50.00	56.97	114	53.31	107	70-130	7	0-20	
Bromochloromethane	ND	50.00	53.61	107	51.94	104	70-130	3	0-20	
Bromodichloromethane	ND	50.00	58.20	116	54.92	110	70-130	6	0-20	
Bromoform	ND	50.00	52.85	106	53.46	107	70-130	1	0-20	
Bromomethane	ND	50.00	47.04	94	42.20	84	70-130	11	0-20	
2-Butanone	ND	50.00	56.78	114	59.38	119	70-130	4	0-20	
n-Butylbenzene	ND	50.00	66.68	133	56.68	113	70-130	16	0-25	3
sec-Butylbenzene	ND	50.00	60.73	121	53.26	107	70-130	13	0-20	
tert-Butylbenzene	ND	50.00	61.28	123	55.58	111	70-130	10	0-20	
Carbon Disulfide	ND	50.00	56.59	113	50.78	102	70-130	11	0-20	
Carbon Tetrachloride	ND	50.00	60.92	122	55.69	111	69-139	9	0-20	
Chlorobenzene	ND	50.00	53.40	107	49.48	99	70-130	8	0-20	
Chloroethane	ND	50.00	55.23	110	51.11	102	70-130	8	0-20	
Chloroform	ND	50.00	57.83	116	55.00	110	70-130	5	0-20	
Chloromethane	ND	50.00	58.85	118	56.58	113	70-130	4	0-20	
2-Chlorotoluene	ND	50.00	56.44	113	51.16	102	70-130	10	0-20	
4-Chlorotoluene	ND	50.00	56.29	113	51.06	102	70-130	10	0-20	
Dibromochloromethane	ND	50.00	55.25	111	53.64	107	70-130	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	43.46	87	45.79	92	70-130	5	0-20	
1,2-Dibromoethane	ND	50.00	50.48	101	50.09	100	80-123	1	0-20	
Dibromomethane	ND	50.00	52.74	105	51.39	103	70-130	3	0-20	
1,2-Dichlorobenzene	ND	50.00	52.90	106	49.37	99	76-120	7	0-20	
1,3-Dichlorobenzene	ND	50.00	54.19	108	48.88	98	70-130	10	0-20	
1,4-Dichlorobenzene	ND	50.00	56.76	114	51.69	103	70-130	9	0-20	
Dichlorodifluoromethane	ND	50.00	106.4	213	91.64	183	70-130	15	0-20	3
1,1-Dichloroethane	ND	50.00	55.97	112	52.93	106	70-130	6	0-20	
1,2-Dichloroethane	ND	50.00	55.45	111	53.83	108	76-130	3	0-20	
1,1-Dichloroethene	ND	50.00	59.85	120	54.65	109	70-130	9	0-27	
c-1,2-Dichloroethene	ND	50.00	58.97	118	55.48	111	70-130	6	0-20	
t-1,2-Dichloroethene	ND	50.00	60.63	121	55.77	112	70-130	8	0-20	
1,2-Dichloropropane	ND	50.00	56.25	113	53.51	107	70-130	5	0-25	
1,3-Dichloropropane	ND	50.00	52.80	106	51.57	103	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	80.95	162	72.02	144	70-130	12	0-20	3
1,1-Dichloropropene	ND	50.00	65.86	132	58.24	116	70-130	12	0-20	3
c-1,3-Dichloropropene	ND	50.00	60.27	121	57.11	114	70-130	5	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	50.00	55.93	112	54.16	108	70-130	3	0-20	
Ethylbenzene	ND	50.00	60.47	121	54.89	110	73-127	10	0-20	
2-Hexanone	ND	50.00	49.06	98	50.32	101	70-130	3	0-20	
Isopropylbenzene	ND	50.00	58.06	116	52.49	105	70-130	10	0-20	
p-Isopropyltoluene	ND	50.00	59.44	119	51.62	103	70-130	14	0-20	
Methylene Chloride	ND	50.00	56.51	113	54.09	108	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	50.00	42.76	86	45.01	90	70-130	5	0-20	
Naphthalene	ND	50.00	47.60	95	47.61	95	70-130	0	0-20	
n-Propylbenzene	ND	50.00	58.12	116	51.21	102	70-130	13	0-20	
Styrene	ND	50.00	60.01	120	55.63	111	70-130	8	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	58.62	117	55.64	111	70-130	5	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	49.21	98	50.56	101	70-130	3	0-20	
Tetrachloroethene	ND	50.00	55.92	112	50.29	101	70-130	11	0-20	
Toluene	ND	50.00	58.83	118	53.90	108	72-126	9	0-20	
1,2,3-Trichlorobenzene	ND	50.00	57.14	114	52.54	105	70-130	8	0-20	
1,2,4-Trichlorobenzene	ND	50.00	59.12	118	52.34	105	70-130	12	0-20	
1,1,1-Trichloroethane	ND	50.00	61.55	123	56.98	114	70-130	8	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	81.71	163	69.40	139	70-130	16	0-20	3
1,1,2-Trichloroethane	ND	50.00	53.12	106	52.15	104	70-130	2	0-20	
Trichloroethene	ND	50.00	56.39	113	51.84	104	74-122	8	0-20	
Trichlorofluoromethane	ND	50.00	71.35	143	62.82	126	70-130	13	0-20	3
1,2,3-Trichloropropane	ND	50.00	48.71	97	49.88	100	70-130	2	0-20	
1,2,4-Trimethylbenzene	ND	50.00	62.50	125	56.44	113	70-130	10	0-20	
1,3,5-Trimethylbenzene	ND	50.00	64.34	129	57.77	116	70-130	11	0-20	
Vinyl Acetate	ND	50.00	54.67	109	54.99	110	70-130	1	0-20	
Vinyl Chloride	ND	50.00	57.06	114	52.81	106	65-131	8	0-24	
p/m-Xylene	ND	100.0	117.2	117	105.7	106	70-130	10	0-20	
o-Xylene	ND	50.00	56.92	114	52.76	106	70-130	8	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	52.73	105	53.11	106	69-123	1	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	273.8	110	269.5	108	65-131	2	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	59.38	119	56.80	114	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	57.00	114	55.63	111	69-123	2	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	54.76	110	54.18	108	70-124	1	0-20	
Ethanol	ND	500.0	622.0	124	590.6	118	41-155	5	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS/PDSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-06-1634-2	**Soil**	**ICP 7300**	**06/26/13 00:00**	**06/27/13 16:48**	**130626S03**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	23.89	96	24.48	98	75-125	2	0-20	
Arsenic	1.329	25.00	25.08	95	25.41	96	75-125	1	0-20	
Barium	62.94	25.00	89.04	104	88.52	102	75-125	1	0-20	
Beryllium	ND	25.00	25.76	103	26.11	104	75-125	1	0-20	
Cadmium	ND	25.00	24.91	100	25.24	101	75-125	1	0-20	
Chromium	7.418	25.00	32.46	100	32.77	101	75-125	1	0-20	
Cobalt	3.609	25.00	29.94	105	30.42	107	75-125	2	0-20	
Copper	5.513	25.00	30.78	101	31.23	103	75-125	1	0-20	
Lead	2.141	25.00	26.14	96	26.37	97	75-125	1	0-20	
Molybdenum	ND	25.00	25.12	100	25.51	102	75-125	2	0-20	
Nickel	4.722	25.00	31.01	105	31.28	106	75-125	1	0-20	
Selenium	ND	25.00	23.66	95	23.50	94	75-125	1	0-20	
Silver	ND	12.50	12.38	99	12.36	99	75-125	0	0-20	
Thallium	ND	25.00	23.89	96	24.56	98	75-125	3	0-20	
Vanadium	10.55	25.00	35.01	98	35.28	99	75-125	1	0-20	
Zinc	13.72	25.00	39.13	102	39.53	103	75-125	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3510C
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-286-27	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 01:24**	**130626B15**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	20000	21390	107	21470	107	75-117	0	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3510C
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-296-138	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:51**	**130626B14**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	20000	19340	97	19520	98	75-117	1	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-420-475	**Soil**	**GC 47**	**06/25/13 18:37**	**130625B02**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	327.0	82	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3550B
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-422-557	**Soil**	**GC 47**	**06/25/13 18:22**	**130625B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	443.0	111	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 5 of 15

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-704-430	**Aqueous**	**GC 25**	**06/25/13 12:18**	**130625B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	2002	100	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4759	**Soil**	**GC 4**	**06/26/13**	**06/26/13 13:13**	**130626B01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	1.731	87	1.753	88	55-139	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-01-002-16971	**Soil**	**ICP 7300**	**06/26/13 17:40**	**130626L03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.78	99	80-120	73-127	
Arsenic	25.00	24.27	97	80-120	73-127	
Barium	25.00	26.59	106	80-120	73-127	
Beryllium	25.00	24.90	100	80-120	73-127	
Cadmium	25.00	25.29	101	80-120	73-127	
Chromium	25.00	25.41	102	80-120	73-127	
Cobalt	25.00	26.94	108	80-120	73-127	
Copper	25.00	24.51	98	80-120	73-127	
Lead	25.00	24.21	97	80-120	73-127	
Molybdenum	25.00	25.45	102	80-120	73-127	
Nickel	25.00	26.92	108	80-120	73-127	
Selenium	25.00	23.61	94	80-120	73-127	
Silver	12.50	12.54	100	80-120	73-127	
Thallium	25.00	25.12	100	80-120	73-127	
Vanadium	25.00	24.58	98	80-120	73-127	
Zinc	25.00	26.78	107	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/24/13
1111 Broadway, FL 6TH		Work Order:	13-06-1600
Oakland, CA 94607-4172		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: KP Chatsworth / WR1767-02			Page 8 of 15

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-04-007-9389	**Soil**	**Mercury**	**06/26/13 16:23**	**130626L06**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.9477	113	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-12-535-2146	**Soil**	**GC 58**	**06/28/13 10:46**	**130626L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	120.4	120	50-135	
Aroclor-1260	100.0	118.9	119	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-06-010-1720	**Soil**	**GC/MS EEE**	**06/30/13 08:08**	**130626L13**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.2213	111	64-118	55-127	
2-Methylnaphthalene	0.2000	0.2202	110	55-127	43-139	
1-Methylnaphthalene	0.2000	0.2151	108	57-129	45-141	
Acenaphthylene	0.2000	0.2044	102	36-132	20-148	
Acenaphthene	0.2000	0.2213	111	61-121	51-131	
Fluorene	0.2000	0.2267	113	56-128	44-140	
Phenanthrene	0.2000	0.2078	104	56-122	45-133	
Anthracene	0.2000	0.1675	84	11-119	0-137	
Fluoranthene	0.2000	0.2099	105	56-122	45-133	
Pyrene	0.2000	0.2166	108	57-129	45-141	
Benzo (a) Anthracene	0.2000	0.2062	103	49-127	36-140	
Chrysene	0.2000	0.2140	107	60-126	49-137	
Benzo (k) Fluoranthene	0.2000	0.2360	118	54-138	40-152	
Benzo (b) Fluoranthene	0.2000	0.2248	112	46-136	31-151	
Benzo (a) Pyrene	0.2000	0.2163	108	40-148	22-166	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.2280	114	43-163	23-183	
Dibenz (a,h) Anthracene	0.2000	0.1887	94	45-153	27-171	
Benzo (g,h,i) Perylene	0.2000	0.1878	94	38-140	21-157	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-256	**Soil**	**GC/MS BB**	**06/25/13**	**06/25/13 15:40**	**130625L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	69.85	140	69.41	139	80-120	73-127	1	0-20	X
Benzene	50.00	47.63	95	48.39	97	80-120	73-127	2	0-20	
Bromobenzene	50.00	47.85	96	49.87	100	80-120	73-127	4	0-20	
Bromochloromethane	50.00	50.54	101	51.42	103	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	51.19	102	50.51	101	80-120	73-127	1	0-20	
Bromoform	50.00	56.89	114	56.54	113	80-120	73-127	1	0-20	
Bromomethane	50.00	40.91	82	46.13	92	80-120	73-127	12	0-20	
2-Butanone	50.00	74.10	148	79.30	159	80-120	73-127	7	0-20	X
n-Butylbenzene	50.00	47.84	96	50.03	100	77-123	69-131	4	0-25	
sec-Butylbenzene	50.00	44.36	89	46.67	93	80-120	73-127	5	0-20	
tert-Butylbenzene	50.00	46.88	94	48.45	97	80-120	73-127	3	0-20	
Carbon Disulfide	50.00	52.46	105	49.14	98	80-120	73-127	7	0-20	
Carbon Tetrachloride	50.00	57.23	114	59.83	120	65-137	53-149	4	0-20	
Chlorobenzene	50.00	45.09	90	47.39	95	80-120	73-127	5	0-20	
Chloroethane	50.00	43.25	86	45.01	90	80-120	73-127	4	0-20	
Chloroform	50.00	48.12	96	49.74	99	80-120	73-127	3	0-20	
Chloromethane	50.00	42.37	85	42.18	84	80-120	73-127	0	0-20	
2-Chlorotoluene	50.00	45.14	90	46.88	94	80-120	73-127	4	0-20	
4-Chlorotoluene	50.00	46.16	92	47.25	95	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	52.25	104	53.61	107	80-120	73-127	3	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.37	103	50.39	101	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	51.52	103	53.55	107	80-120	73-127	4	0-20	
Dibromomethane	50.00	49.66	99	51.73	103	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	50.00	45.08	90	46.00	92	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	45.49	91	46.86	94	80-120	73-127	3	0-20	
1,4-Dichlorobenzene	50.00	47.68	95	49.46	99	80-120	73-127	4	0-20	
Dichlorodifluoromethane	50.00	47.88	96	47.66	95	80-120	73-127	0	0-20	
1,1-Dichloroethane	50.00	51.72	103	55.10	110	80-120	73-127	6	0-20	
1,2-Dichloroethane	50.00	48.48	97	48.28	97	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	44.41	89	44.95	90	68-128	58-138	1	0-20	
c-1,2-Dichloroethene	50.00	49.30	99	51.06	102	80-120	73-127	4	0-20	
t-1,2-Dichloroethene	50.00	50.96	102	53.40	107	80-120	73-127	5	0-20	
1,2-Dichloropropane	50.00	49.17	98	49.26	99	79-115	73-121	0	0-25	
1,3-Dichloropropane	50.00	50.26	101	51.92	104	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	66.62	133	96.29	193	80-120	73-127	36	0-20	X
1,1-Dichloropropene	50.00	50.22	100	51.90	104	80-120	73-127	3	0-20	
c-1,3-Dichloropropene	50.00	54.69	109	54.61	109	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	54.07	108	55.67	111	80-120	73-127	3	0-20	
Ethylbenzene	50.00	47.97	96	50.34	101	80-120	73-127	5	0-20	
2-Hexanone	50.00	61.94	124	65.11	130	80-120	73-127	5	0-20	ME,X
Isopropylbenzene	50.00	44.06	88	46.33	93	80-120	73-127	5	0-20	
p-Isopropyltoluene	50.00	44.07	88	46.51	93	80-120	73-127	5	0-20	
Methylene Chloride	50.00	47.79	96	48.64	97	80-120	73-127	2	0-20	
4-Methyl-2-Pentanone	50.00	53.73	107	54.62	109	80-120	73-127	2	0-20	
Naphthalene	50.00	50.29	101	51.71	103	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	43.66	87	45.87	92	80-120	73-127	5	0-20	
Styrene	50.00	48.46	97	50.52	101	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.12	100	51.89	104	80-120	73-127	3	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.18	102	52.64	105	80-120	73-127	3	0-20	
Tetrachloroethene	50.00	44.59	89	47.62	95	80-120	73-127	7	0-20	
Toluene	50.00	48.30	97	48.90	98	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	47.23	94	49.04	98	80-120	73-127	4	0-20	
1,2,4-Trichlorobenzene	50.00	48.57	97	50.23	100	80-120	73-127	3	0-20	
1,1,1-Trichloroethane	50.00	49.61	99	51.44	103	80-120	73-127	4	0-20	
1,1,2-Trichloroethane	50.00	49.10	98	50.07	100	80-120	73-127	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	45.53	91	48.16	96	80-120	73-127	6	0-20	
Trichloroethene	50.00	47.38	95	48.50	97	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	48.00	96	49.25	98	80-120	73-127	3	0-20	
1,2,3-Trichloropropane	50.00	50.26	101	51.06	102	80-120	73-127	2	0-20	
1,2,4-Trimethylbenzene	50.00	49.25	99	49.79	100	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	47.88	96	50.38	101	80-120	73-127	5	0-20	
Vinyl Acetate	50.00	56.60	113	56.92	114	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	39.41	79	40.22	80	67-127	57-137	2	0-20	
p/m-Xylene	100.0	91.97	92	95.87	96	80-120	73-127	4	0-20	
o-Xylene	50.00	44.20	88	45.89	92	80-120	73-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	51.94	104	53.21	106	70-124	61-133	2	0-20	
Tert-Butyl Alcohol (TBA)	250.0	236.4	95	255.0	102	73-121	65-129	8	0-20	
Diisopropyl Ether (DIPE)	50.00	49.62	99	51.78	104	69-129	59-139	4	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.43	101	52.02	104	70-124	61-133	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.44	99	49.75	99	74-122	66-130	1	0-20	
Ethanol	500.0	350.3	70	281.2	56	51-135	37-149	22	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 1
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/24/13
1111 Broadway, FL 6TH	Work Order:	13-06-1600
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 13 of 15

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1048	**Aqueous**	**GC/MS GGG**	**06/26/13 10:16**	**130626L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	44.92	90	70-130	60-140	
Benzene	50.00	51.59	103	70-130	60-140	
Bromobenzene	50.00	52.68	105	70-130	60-140	
Bromochloromethane	50.00	50.63	101	70-130	60-140	
Bromodichloromethane	50.00	54.62	109	70-130	60-140	
Bromoform	50.00	53.03	106	70-130	60-140	
Bromomethane	50.00	39.17	78	70-130	60-140	
2-Butanone	50.00	41.13	82	70-130	60-140	
n-Butylbenzene	50.00	52.41	105	77-123	69-131	
sec-Butylbenzene	50.00	51.12	102	70-130	60-140	
tert-Butylbenzene	50.00	52.85	106	70-130	60-140	
Carbon Disulfide	50.00	50.48	101	70-130	60-140	
Carbon Tetrachloride	50.00	52.32	105	66-138	54-150	
Chlorobenzene	50.00	48.97	98	70-130	60-140	
Chloroethane	50.00	50.62	101	70-130	60-140	
Chloroform	50.00	53.54	107	70-130	60-140	
Chloromethane	50.00	55.44	111	70-130	60-140	
2-Chlorotoluene	50.00	49.83	100	70-130	60-140	
4-Chlorotoluene	50.00	50.42	101	70-130	60-140	
Dibromochloromethane	50.00	53.44	107	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	42.53	85	70-130	60-140	
1,2-Dibromoethane	50.00	48.83	98	70-130	60-140	
Dibromomethane	50.00	49.59	99	70-130	60-140	
1,2-Dichlorobenzene	50.00	48.49	97	70-130	60-140	
1,3-Dichlorobenzene	50.00	48.39	97	70-130	60-140	
1,4-Dichlorobenzene	50.00	50.78	102	70-130	60-140	
Dichlorodifluoromethane	50.00	50.55	101	70-130	60-140	
1,1-Dichloroethane	50.00	52.07	104	70-130	60-140	
1,2-Dichloroethane	50.00	51.98	104	80-129	72-137	
1,1-Dichloroethene	50.00	52.50	105	71-131	61-141	
c-1,2-Dichloroethene	50.00	54.08	108	70-130	60-140	
t-1,2-Dichloroethene	50.00	54.60	109	70-130	60-140	
1,2-Dichloropropane	50.00	52.84	106	79-115	73-121	
1,3-Dichloropropane	50.00	49.97	100	70-130	60-140	
2,2-Dichloropropane	50.00	38.67	77	70-130	60-140	
1,1-Dichloropropene	50.00	55.16	110	70-130	60-140	
c-1,3-Dichloropropene	50.00	51.50	103	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/24/13
Work Order: 13-06-1600
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	48.16	96	70-130	60-140	
Ethylbenzene	50.00	53.83	108	80-123	73-130	
2-Hexanone	50.00	38.75	77	70-130	60-140	
Isopropylbenzene	50.00	51.42	103	70-130	60-140	
p-Isopropyltoluene	50.00	49.71	99	70-130	60-140	
Methylene Chloride	50.00	52.73	105	70-130	60-140	
4-Methyl-2-Pentanone	50.00	39.85	80	70-130	60-140	
Naphthalene	50.00	45.29	91	70-130	60-140	
n-Propylbenzene	50.00	49.00	98	70-130	60-140	
Styrene	50.00	54.81	110	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	56.49	113	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	48.42	97	70-130	60-140	
Tetrachloroethene	50.00	53.31	107	70-130	60-140	
Toluene	50.00	53.15	106	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	51.01	102	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	50.37	101	70-130	60-140	
1,1,1-Trichloroethane	50.00	54.68	109	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	43.32	87	70-130	60-140	
1,1,2-Trichloroethane	50.00	50.16	100	70-130	60-140	
Trichloroethene	50.00	50.16	100	70-130	60-140	
Trichlorofluoromethane	50.00	49.50	99	70-130	60-140	
1,2,3-Trichloropropane	50.00	46.93	94	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	56.01	112	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	56.26	113	70-130	60-140	
Vinyl Acetate	50.00	47.18	94	70-130	60-140	
Vinyl Chloride	50.00	48.22	96	70-136	59-147	
p/m-Xylene	100.0	103.6	104	70-130	60-140	
o-Xylene	50.00	51.80	104	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	50.79	102	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	264.2	106	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	54.57	109	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	53.64	107	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.24	104	67-133	56-144	
Ethanol	500.0	545.1	109	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 0
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1600 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 5035	834	GC 4	2
EPA 8015B (M)	EPA 3510C	847	GC 46	1
EPA 8015B (M)	EPA 3550B	682	GC 47	1
EPA 8015B (M)	EPA 5030C	797	GC 25	2
EPA 8082	EPA 3545	669	GC 58	1
EPA 8260B	EPA 5035	823	GC/MS BB	2
EPA 8260B	EPA 5030C	316	GC/MS GGG	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2
EPA 8270C SIM PAHs	EPA 3545	449	GC/MS EEE	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1600 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013

PAGE: 1 OF 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens
P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 13-06-1600

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS
~~Diesel~~ SBV-01-38 may have diesel/gasoline from nearby auto repair ~~station repair~~ taking place during sample collection.

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
1	SV-05-02	6/24/13	0730	Soil	1	X					
2	SV-05-05		0740		1	X					
3	SV-04-02		0815		1	X					
4	SV-04-05		0825		1	X					
5	SV-04-05DUP		0830		1	X					
6	SBV-01-05		1005		9		X	X	X	X	X
7	SBV-01-12		1630		9		X	X	X	X	X
8	SBV-01-20		1040		9		X	X	X	X	X
9	SBV-01-05 DUP		1015		9		X	X	X	X	X
10	SBV-01-31		1110		9		X	X	X		X
11	SBV-01-38		1140		9		X	X			X
12	SBV-02-05		1410		9		X	X	X	X	X
13	SBV-02-09		1420		9		X	X	X	X	X

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/24/13	Time: 1605
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 6/24/13	Time: 1845
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 06-1600

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
14	SBV-02-20	6/24/13	1435	Soil	9		X	X	X	X	X
15	SBV-02-30	↓	1450	↓	9		X	X	X		X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
F Mansfield	CEL	6/24/13	1605
	CEL	6/24/13	1845

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013

PAGE: 3 OF 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens
P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 06-1600

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS
SBG-1-GW VOA samples are unpreserved.
TB-2 and EB-2 VOAs are preserved

REQUESTED ANALYSIS - Groundwater

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	VOCs (8260B)	TPHg (8015M)	TPHd/mo (8015M)
16	SBG-1-GW	6/24/13	1116	water	6	X	X	X
17	TB-2	6/24/13	1202	water	2	X		
18	EB-2	6/24/13	1537	water	6	X	X	X

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/24/13	Time: 1605
Relinquished by: (Signature)	Received by: (Signature) CA	Date: 6/24/13	Time: 1845
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1600

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec

DATE: 06/24/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.4 °C - 0.2 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Initial:** JV

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** JV

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** D.Y

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☑ Unpreserved vials received for Volatiles analysis (-16)			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☑8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑6 TerraCores® ☑2ozPJ

Water: ☑VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 130613B **Labeled/Checked by:** D.Y

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** TN

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** TN

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1682

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/03/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1682

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-06-1682 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/25/13. They were assigned to Work Order 13-06-1682.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Attn: Syed Rehan

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
PO Number:
Date Received: 06/25/13

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SV-06-02	13-06-1682-1	06/25/13 07:35	1	Soil
SV-06-05	13-06-1682-2	06/25/13 07:40	1	Soil
SBV-05-02	13-06-1682-3	06/24/13 16:20	9	Soil
SBV-05-05	13-06-1682-4	06/24/13 16:30	9	Soil
SBV-05-09	13-06-1682-5	06/24/13 16:40	9	Soil
SBV-05-19	13-06-1682-6	06/25/13 08:55	9	Soil
SBV-05-19DUP	13-06-1682-7	06/25/13 09:00	9	Soil
SBV-05-29	13-06-1682-8	06/25/13 09:30	9	Soil
SBV-04-05	13-06-1682-9	06/25/13 09:45	9	Soil
SBV-04-09	13-06-1682-10	06/25/13 11:45	9	Soil
SBV-04-20	13-06-1682-11	06/25/13 12:05	9	Soil
SBV-04-29	13-06-1682-12	06/25/13 12:20	5	Soil
SBV-04-37	13-06-1682-13	06/25/13 12:35	9	Soil
SBV-03-02	13-06-1682-14	06/25/13 12:55	1	Soil
SBV-03-05	13-06-1682-15	06/25/13 13:00	9	Soil
SBV-03-09	13-06-1682-16	06/25/13 13:35	9	Soil
SBV-03-20	13-06-1682-17	06/25/13 13:45	9	Soil
SBV-03-30	13-06-1682-18	06/25/13 14:00	9	Soil
SV-02-02	13-06-1682-19	06/25/13 14:09	1	Soil
SV-02-05	13-06-1682-20	06/25/13 14:17	1	Soil
SV-03-02	13-06-1682-21	06/25/13 14:32	1	Soil
SV-03-05	13-06-1682-22	06/25/13 14:40	1	Soil
SBV-04-20DUP	13-06-1682-23	06/25/13 12:05	4	Soil
SBG-2-60	13-06-1682-24	06/24/13 16:23	9	Soil
SBG-2-70	13-06-1682-25	06/25/13 07:54	9	Soil
DUP-SBG-2-70	13-06-1682-26	06/25/13 07:54	9	Soil
SBG-2-100	13-06-1682-27	06/25/13 09:10	9	Soil
SBG-2-110	13-06-1682-28	06/25/13 09:56	9	Soil

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Attn: Syed Rehan

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-06-02 (13-06-1682-1)						
Arsenic	2.59		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	46.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.167	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.04		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.45		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.12		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	6.06		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.33		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.73		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	9.53		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	19.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	20.3		1.00	mg/kg	EPA 6010B	EPA 3050B
SV-06-05 (13-06-1682-2)						
Arsenic	1.82		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	38.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.138	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.934		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.86		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.18		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	4.60		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.01		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.73		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.51		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	16.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	15.1		1.00	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-05-02 (13-06-1682-3)						
Arsenic	5.58		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	153		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.464		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.77		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.34		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	25.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	10.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.46		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	28.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	66.2		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0387	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
TPH as Motor Oil	16	HD,J	7.0*	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	2.9	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	14	J	4.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.48	J	0.10*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.59	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.16	J	0.12*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.024		0.020	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.0066	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0066	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.010	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Chrysene	0.0036	J	0.0023*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (k) Fluoranthene	0.0031	J	0.0028*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (b) Fluoranthene	0.0035	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (a) Pyrene	0.0047	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Indeno (1,2,3-c,d) Pyrene	0.0041	J	0.0021*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (g,h,i) Perylene	0.0059	J	0.0019*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-05-05 (13-06-1682-4)						
Arsenic	6.28		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	160		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.474		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.90		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	24.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.48		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	26.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	14.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.63		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	29.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	68.9		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0200	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	26	J	4.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.34	J	0.10*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.2	J	2.9*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.73	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.014	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0022	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0032	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-05-09 (13-06-1682-5)						
TPH as Gasoline	0.053	J	0.045*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	15	HD,J	7.0*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	38	J	5.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.4		0.91	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.3	J	3.4*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.52	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.91	ug/kg	EPA 8260B	EPA 5035
Toluene	2.4		0.91	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.78	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.0061	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-05-19 (13-06-1682-6)						
TPH as Gasoline	0.069	J	0.046*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	33	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.0		0.89	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.7	J	3.4*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.28	J	0.14*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.38	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	3.5		0.89	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	0.51	J	0.45*	ug/kg	EPA 8260B	EPA 5035
Toluene	3.3		0.89	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.57	J	0.52*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.24*	ug/kg	EPA 8260B	EPA 5035
SBV-05-19DUP (13-06-1682-7)						
TPH as Gasoline	0.076	J	0.049*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	26	J	5.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.0		0.92	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.54	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.0		0.92	ug/kg	EPA 8260B	EPA 5035
Toluene	3.1		0.92	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.93	J	0.25*	ug/kg	EPA 8260B	EPA 5035
SBV-05-29 (13-06-1682-8)						
Acetone	18	J	5.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.79	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.47	J	0.43*	ug/kg	EPA 8260B	EPA 5035
SBV-04-05 (13-06-1682-9)						
TPH as Gasoline	0.059	J	0.043*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	57	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	4.5	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	62		40	ug/kg	EPA 8260B	EPA 5035
Benzene	5.6		0.80	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.8	J	3.0*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.99	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.3		0.80	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.25	J	0.17*	ug/kg	EPA 8260B	EPA 5035
Toluene	6.4		0.80	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.48	J	0.47*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	2.0		1.6	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.73	J	0.45*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-04-09 (13-06-1682-10)						
Acetone	49		46	ug/kg	EPA 8260B	EPA 5035
Benzene	2.7		0.93	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.8	J	3.5*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.89	J	0.28*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		0.93	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		0.93	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.86	J	0.25*	ug/kg	EPA 8260B	EPA 5035
SBV-04-20 (13-06-1682-11)						
Acetone	47	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.86	J	0.13*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.1	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.60	J	0.51*	ug/kg	EPA 8260B	EPA 5035
SBV-04-37 (13-06-1682-13)						
Acetone	84		54	ug/kg	EPA 8260B	EPA 5035
Benzene	1.2		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	8.7	J	4.1*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.25	J	0.17*	ug/kg	EPA 8260B	EPA 5035
Toluene	0.91	J	0.56*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.55	J	0.29*	ug/kg	EPA 8260B	EPA 5035
SBV-03-02 (13-06-1682-14)						
Arsenic	4.76		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	104		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.395		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.85		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.92		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	17.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.64		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.13		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	48.6		1.00	mg/kg	EPA 6010B	EPA 3050B

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-03-05 (13-06-1682-15)						
Arsenic	4.37		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	99.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.364		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.76		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.16		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	15.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.33		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.32		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	44.2		1.00	mg/kg	EPA 6010B	EPA 3050B
TPH as Gasoline	0.060	J	0.050*	mg/kg	EPA 8015B (M)	EPA 5035
TPH as Motor Oil	38	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
TPH as Diesel	2.3	HD,J	1.6*	mg/kg	EPA 8015B (M)	EPA 3550B
Acetone	33	J	6.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.9		0.95	ug/kg	EPA 8260B	EPA 5035
2-Butanone	8.3	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.58	J	0.29*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.6		0.95	ug/kg	EPA 8260B	EPA 5035
Toluene	3.0		0.95	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.62	J	0.56*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.1	J	0.26*	ug/kg	EPA 8260B	EPA 5035
SBV-03-09 (13-06-1682-16)						
TPH as Gasoline	0.049	J	0.045*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	18	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.1		0.88	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.6	J	3.3*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.14	J	0.14*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.37	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		0.88	ug/kg	EPA 8260B	EPA 5035
Toluene	2.8		0.88	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.53	J	0.52*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.99	J	0.24*	ug/kg	EPA 8260B	EPA 5035

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Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBV-03-20 (13-06-1682-17)						
TPH as Gasoline	0.052	J	0.049*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	17	J	7.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.3		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.1	J	4.3*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.18	J	0.18*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.9		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	3.0		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.31*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.013	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.0030	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.0028	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0041	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBV-03-30 (13-06-1682-18)						
Acetone	8.8	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.1		0.88	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.9	J	3.3*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.34	J	0.27*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.50	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	1.1		0.88	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.60	J	0.24*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	4.6	J	4.5*	ug/kg	EPA 8260B	EPA 5035
SV-02-02 (13-06-1682-19)						
Arsenic	4.29		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	93.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.326		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.55		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.65		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	14.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	4.17		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.76		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	43.8		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.00872	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total

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Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-02-05 (13-06-1682-20)						
Arsenic	3.94		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	114		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.381		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.88		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.67		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	16.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.55		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.43		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	45.8		1.00	mg/kg	EPA 6010B	EPA 3050B
SV-03-02 (13-06-1682-21)						
Arsenic	4.86		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	113		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.402		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.90		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	24.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.24		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	18.6		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	6.22		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.23		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	25.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	54.4		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0148	J	0.00588*	mg/kg	EPA 7471A	EPA 7471A Total

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-03-05 (13-06-1682-22)						
Arsenic	5.25		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	118		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.432		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.10		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.52		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	19.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.99		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	3.74		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	27.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	51.8		1.00	mg/kg	EPA 6010B	EPA 3050B
SBV-04-20DUP (13-06-1682-23)						
Acetone	14	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.54	J	0.12*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.6	J	3.4*	ug/kg	EPA 8260B	EPA 5035
SBG-2-60 (13-06-1682-24)						
TPH as Gasoline	0.057	J	0.051*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	28	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.8		0.98	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.5	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.6		0.98	ug/kg	EPA 8260B	EPA 5035
Toluene	2.2		0.98	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.78	J	0.26*	ug/kg	EPA 8260B	EPA 5035
Pyrene	0.0021	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-2-70 (13-06-1682-25)						
Acetone	11	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.27	J	0.10*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.018	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Acenaphthene	0.0046	J	0.0036*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.012	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.014	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.020	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Chrysene	0.0037	J	0.0023*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (k) Fluoranthene	0.0031	J	0.0028*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (b) Fluoranthene	0.0023	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (a) Pyrene	0.0054	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Indeno (1,2,3-c,d) Pyrene	0.0041	J	0.0021*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (g,h,i) Perylene	0.0048	J	0.0019*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
DUP-SBG-2-70 (13-06-1682-26)						
Acetone	11	J	4.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.17	J	0.10*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.3	J	3.0*	ug/kg	EPA 8260B	EPA 5035
Fluoranthene	0.0069	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.011	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Chrysene	0.0027	J	0.0023*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (k) Fluoranthene	0.0029	J	0.0028*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (b) Fluoranthene	0.0041	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (a) Pyrene	0.0060	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Indeno (1,2,3-c,d) Pyrene	0.0064	J	0.0021*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (g,h,i) Perylene	0.0081	J	0.0019*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1682
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-2-100 (13-06-1682-27)						
TPH as Gasoline	0.32		0.27	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	14	J	6.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.1		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	3.8	J	3.8*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.69	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	8.0		1.0	ug/kg	EPA 8260B	EPA 5035
n-Propylbenzene	1.3	J	0.51*	ug/kg	EPA 8260B	EPA 5035
Toluene	7.1		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	1.8	J	0.59*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	2.3		2.0	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.95	J	0.56*	ug/kg	EPA 8260B	EPA 5035
Naphthalene	0.013	J	0.0060*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Acenaphthene	0.0055	J	0.0036*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Phenanthrene	0.016	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Anthracene	0.0025	J	0.0016*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Fluoranthene	0.014	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.024		0.020	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Chrysene	0.0038	J	0.0023*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (k) Fluoranthene	0.0032	J	0.0028*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (b) Fluoranthene	0.0037	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (a) Pyrene	0.0066	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Indeno (1,2,3-c,d) Pyrene	0.0059	J	0.0021*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (g,h,i) Perylene	0.0090	J	0.0019*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
SBG-2-110 (13-06-1682-28)						
TPH as Gasoline	0.080	J	0.051*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	17	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.50	J	0.10*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.1	J	3.0*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.19	J	0.12*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.6		0.80	ug/kg	EPA 8260B	EPA 5035
Toluene	1.5		0.80	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.43	J	0.21*	ug/kg	EPA 8260B	EPA 5035
Fluoranthene	0.0022	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Pyrene	0.0036	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545
Benzo (a) Pyrene	0.0021	J	0.0020*	mg/kg	EPA 8270C SIM PAHs	EPA 3545

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client:	Geosyntec Consultants	Work Order:	13-06-1682
	1111 Broadway, FL 6TH	Project Name:	KP Chatsworth / WR1767-02
	Oakland, CA 94607-4172	Received:	06/25/13
Attn:	Syed Rehan		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction

Subcontracted analyses, if any, are not included in this summary.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 17:58**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	16	25	7.0	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:15**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-A**	**06/24/13 16:40**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:31**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	15	25	7.0	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-A**	**06/25/13 08:55**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:49**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: KP Chatsworth / WR1767-02			Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19DUP	**13-06-1682-7-A**	**06/25/13 09:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:05**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-29	**13-06-1682-8-A**	**06/25/13 09:30**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:22**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-A**	**06/25/13 09:45**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:38**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	57	25	7.0	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-A**	**06/25/13 11:45**	**Soil**	**GC 46**	**06/26/13**	**06/27/13 11:34**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-A**	**06/25/13 12:05**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 20:12**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-29	**13-06-1682-12-A**	**06/25/13 12:20**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 20:28**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-37	**13-06-1682-13-A**	**06/25/13 12:35**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:18**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:33**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	38	25	7.0	1	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-A**	**06/25/13 13:35**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:51**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-A**	**06/25/13 13:45**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:08**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-30	**13-06-1682-18-A**	**06/25/13 14:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:24**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-60	**13-06-1682-24-A**	**06/24/13 16:23**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:41**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-70	**13-06-1682-25-A**	**06/25/13 07:54**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:56**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-70	**13-06-1682-26-A**	**06/25/13 07:54**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:13**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-100	**13-06-1682-27-A**	**06/25/13 09:10**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:29**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-110	**13-06-1682-28-A**	**06/25/13 09:56**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:45**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/25/13
Work Order:	13-06-1682
Preparation:	EPA 3550B
Method:	EPA 8015B (M)
Units:	mg/kg
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-478**	**N/A**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 16:03**	**130626B04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 17:58**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	2.9	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:15**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-A**	**06/24/13 16:40**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:31**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-A**	**06/25/13 08:55**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 18:49**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19DUP	**13-06-1682-7-A**	**06/25/13 09:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:05**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-29	**13-06-1682-8-A**	**06/25/13 09:30**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:22**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-A**	**06/25/13 09:45**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 19:38**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	4.5	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-A**	**06/25/13 11:45**	**Soil**	**GC 46**	**06/26/13**	**06/27/13 11:34**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-A**	**06/25/13 12:05**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 20:12**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-29	**13-06-1682-12-A**	**06/25/13 12:20**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 20:28**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-37	**13-06-1682-13-A**	**06/25/13 12:35**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:18**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:33**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	2.3	5.0	1.6	1	HD,J

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-A**	**06/25/13 13:35**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 21:51**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	88	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-A**	**06/25/13 13:45**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:08**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-30	**13-06-1682-18-A**	**06/25/13 14:00**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:24**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-60	**13-06-1682-24-A**	**06/24/13 16:23**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:41**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
		Units:	mg/kg
Project: KP Chatsworth / WR1767-02			Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-70	**13-06-1682-25-A**	**06/25/13 07:54**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 22:56**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-70	**13-06-1682-26-A**	**06/25/13 07:54**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:13**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-100	**13-06-1682-27-A**	**06/25/13 09:10**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:29**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	97	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-110	**13-06-1682-28-A**	**06/25/13 09:56**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 23:45**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/25/13
Work Order:	13-06-1682
Preparation:	EPA 3550B
Method:	EPA 8015B (M)
Units:	mg/kg
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-560**	**N/A**	**Soil**	**GC 46**	**06/26/13**	**06/26/13 16:03**	**130626B03**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-H**	**06/24/13 16:20**	**Soil**	**GC 4**	**06/24/13**	**06/27/13 02:23**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.20	0.040	0.792	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-H**	**06/24/13 16:30**	**Soil**	**GC 4**	**06/24/13**	**06/27/13 02:56**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.20	0.041	0.806	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	86	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-H**	**06/24/13 16:40**	**Soil**	**GC 4**	**06/24/13**	**06/27/13 03:29**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.053	0.22	0.045	0.898	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-H**	**06/25/13 08:55**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 04:02**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.069	0.23	0.046	0.917	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19DUP	**13-06-1682-7-H**	**06/25/13 09:00**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 04:35**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.076	0.24	0.049	0.965	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-29	**13-06-1682-8-H**	**06/25/13 09:30**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 05:08**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.20	0.040	0.791	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-H**	**06/25/13 09:45**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 05:41**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.059	0.21	0.043	0.847	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-H**	**06/25/13 11:45**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 06:14**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.23	0.045	0.901	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-H**	**06/25/13 12:05**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 06:47**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.22	0.044	0.868	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-29	**13-06-1682-12-D**	**06/25/13 12:20**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 18:22**	**130627B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.24	0.047	0.942	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-37	**13-06-1682-13-H**	**06/25/13 12:35**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 07:20**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.21	0.043	0.858	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-H**	**06/25/13 13:00**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 08:58**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.060	0.25	0.050	0.994	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-H**	**06/25/13 13:35**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 09:31**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.049	0.22	0.045	0.89	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-H**	**06/25/13 13:45**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 10:04**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.052	0.24	0.049	0.975	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-30	**13-06-1682-18-H**	**06/25/13 14:00**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 10:37**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.22	0.045	0.888	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-60	**13-06-1682-24-H**	**06/24/13 16:23**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 11:10**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.057	0.26	0.051	1.02	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-70	**13-06-1682-25-H**	**06/25/13 07:54**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 11:43**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.22	0.044	0.879	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-70	**13-06-1682-26-H**	**06/25/13 07:54**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 12:16**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.21	0.043	0.855	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-100	**13-06-1682-27-H**	**06/25/13 09:10**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 12:49**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.32	0.27	0.054	1.08	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-110	**13-06-1682-28-H**	**06/25/13 09:56**	**Soil**	**GC 4**	**06/25/13**	**06/27/13 13:22**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.080	0.25	0.051	1.01	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-285-4762**	**N/A**	**Soil**	**GC 4**	**06/26/13**	**06/27/13 00:45**	**130626B02**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-285-4764**	**N/A**	**Soil**	**GC 4**	**06/27/13**	**06/27/13 16:11**	**130627B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	91	60-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-06-02	**13-06-1682-1-A**	**06/25/13 07:35**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:48**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.59	0.750	0.259	1	
Barium	46.3	0.500	0.154	1	
Beryllium	0.167	0.250	0.137	1	J
Cadmium	1.04	0.500	0.135	1	
Chromium	8.45	0.250	0.142	1	
Cobalt	3.12	0.250	0.148	1	
Copper	6.06	0.500	0.135	1	
Lead	1.33	0.500	0.132	1	
Molybdenum	1.73	0.250	0.132	1	
Nickel	9.53	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	19.5	0.250	0.141	1	
Zinc	20.3	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-06-05	**13-06-1682-2-A**	**06/25/13 07:40**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:49**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	1.82	0.750	0.259	1	
Barium	38.4	0.500	0.154	1	
Beryllium	0.138	0.250	0.137	1	J
Cadmium	0.934	0.500	0.135	1	
Chromium	5.86	0.250	0.142	1	
Cobalt	2.18	0.250	0.148	1	
Copper	4.60	0.500	0.135	1	
Lead	1.01	0.500	0.132	1	
Molybdenum	1.73	0.250	0.132	1	
Nickel	7.51	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	16.8	0.250	0.141	1	
Zinc	15.1	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:50**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	5.58	0.750	0.259	1	
Barium	153	0.500	0.154	1	
Beryllium	0.464	0.250	0.137	1	
Cadmium	1.77	0.500	0.135	1	
Chromium	22.4	0.250	0.142	1	
Cobalt	9.34	0.250	0.148	1	
Copper	25.4	0.500	0.135	1	
Lead	10.6	0.500	0.132	1	
Molybdenum	2.46	0.250	0.132	1	
Nickel	28.2	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	37.0	0.250	0.141	1	
Zinc	66.2	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:51**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	6.28	0.750	0.259	1	
Barium	160	0.500	0.154	1	
Beryllium	0.474	0.250	0.137	1	
Cadmium	1.90	0.500	0.135	1	
Chromium	24.5	0.250	0.142	1	
Cobalt	9.48	0.250	0.148	1	
Copper	26.0	0.500	0.135	1	
Lead	14.3	0.500	0.132	1	
Molybdenum	2.63	0.250	0.132	1	
Nickel	29.1	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	38.9	0.250	0.141	1	
Zinc	68.9	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-02	**13-06-1682-14-A**	**06/25/13 12:55**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:53**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.76	0.750	0.259	1	
Barium	104	0.500	0.154	1	
Beryllium	0.395	0.250	0.137	1	
Cadmium	1.85	0.500	0.135	1	
Chromium	18.7	0.250	0.142	1	
Cobalt	7.92	0.250	0.148	1	
Copper	17.0	0.500	0.135	1	
Lead	3.64	0.500	0.132	1	
Molybdenum	3.13	0.250	0.132	1	
Nickel	24.5	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	41.7	0.250	0.141	1	
Zinc	48.6	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:54**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.37	0.750	0.259	1	
Barium	99.2	0.500	0.154	1	
Beryllium	0.364	0.250	0.137	1	
Cadmium	1.76	0.500	0.135	1	
Chromium	17.5	0.250	0.142	1	
Cobalt	7.16	0.250	0.148	1	
Copper	15.2	0.500	0.135	1	
Lead	3.33	0.500	0.132	1	
Molybdenum	3.32	0.250	0.132	1	
Nickel	21.9	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	38.3	0.250	0.141	1	
Zinc	44.2	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-02-02	**13-06-1682-19-A**	**06/25/13 14:09**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:55**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.29	0.750	0.259	1	
Barium	93.5	0.500	0.154	1	
Beryllium	0.326	0.250	0.137	1	
Cadmium	1.55	0.500	0.135	1	
Chromium	15.0	0.250	0.142	1	
Cobalt	6.65	0.250	0.148	1	
Copper	14.1	0.500	0.135	1	
Lead	4.17	0.500	0.132	1	
Molybdenum	2.76	0.250	0.132	1	
Nickel	19.9	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	33.1	0.250	0.141	1	
Zinc	43.8	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-02-05	**13-06-1682-20-A**	**06/25/13 14:17**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:56**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	3.94	0.750	0.259	1	
Barium	114	0.500	0.154	1	
Beryllium	0.381	0.250	0.137	1	
Cadmium	1.88	0.500	0.135	1	
Chromium	18.8	0.250	0.142	1	
Cobalt	7.67	0.250	0.148	1	
Copper	16.1	0.500	0.135	1	
Lead	3.55	0.500	0.132	1	
Molybdenum	3.43	0.250	0.132	1	
Nickel	24.2	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	41.4	0.250	0.141	1	
Zinc	45.8	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-03-02	**13-06-1682-21-A**	**06/25/13 14:32**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:58**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	4.86	0.750	0.259	1	
Barium	113	0.500	0.154	1	
Beryllium	0.402	0.250	0.137	1	
Cadmium	1.90	0.500	0.135	1	
Chromium	24.6	0.250	0.142	1	
Cobalt	8.24	0.250	0.148	1	
Copper	18.6	0.500	0.135	1	
Lead	6.22	0.500	0.132	1	
Molybdenum	3.23	0.250	0.132	1	
Nickel	25.4	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	41.3	0.250	0.141	1	
Zinc	54.4	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-03-05	**13-06-1682-22-A**	**06/25/13 14:40**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:39**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	5.25	0.750	0.259	1	
Barium	118	0.500	0.154	1	
Beryllium	0.432	0.250	0.137	1	
Cadmium	2.10	0.500	0.135	1	
Chromium	20.5	0.250	0.142	1	
Cobalt	8.52	0.250	0.148	1	
Copper	19.2	0.500	0.135	1	
Lead	3.99	0.500	0.132	1	
Molybdenum	3.74	0.250	0.132	1	
Nickel	27.6	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	44.8	0.250	0.141	1	
Zinc	51.8	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-16977**	**N/A**	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:32**	**130626L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	ND	1.00	0.178	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-06-02	**13-06-1682-1-A**	**06/25/13 07:35**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:01**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-06-05	**13-06-1682-2-A**	**06/25/13 07:40**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:03**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:05**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0387	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:07**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0200	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-02	**13-06-1682-14-A**	**06/25/13 12:55**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:14**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:16**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-02-02	**13-06-1682-19-A**	**06/25/13 14:09**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:18**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00872	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-02-05	**13-06-1682-20-A**	**06/25/13 14:17**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:21**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-03-02	**13-06-1682-21-A**	**06/25/13 14:32**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:23**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0148	0.0835	0.00588	1	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-03-05	**13-06-1682-22-A**	**06/25/13 14:40**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:25**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9390**	**N/A**	**Soil**	**Mercury**	**06/26/13**	**06/26/13 16:56**	**130626L07**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 06:08**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	50-130	
2,4,5,6-Tetrachloro-m-Xylene	77	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 06:26**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	50-130	
2,4,5,6-Tetrachloro-m-Xylene	70	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Geosyntec Consultants
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Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-A**	**06/24/13 16:40**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 06:44**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	85	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-A**	**06/25/13 08:55**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 07:02**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	76	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-A**	**06/25/13 09:45**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 07:20**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	50-130	
2,4,5,6-Tetrachloro-m-Xylene	92	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-A**	**06/25/13 11:45**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 07:38**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-130	
2,4,5,6-Tetrachloro-m-Xylene	83	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-A**	**06/25/13 12:05**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 07:56**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	50-130	
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 20:39**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	50-130	
2,4,5,6-Tetrachloro-m-Xylene	89	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-A**	**06/25/13 13:35**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 20:57**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-A**	**06/25/13 13:45**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 21:15**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	50-130	
2,4,5,6-Tetrachloro-m-Xylene	92	50-130	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-535-2145**	**N/A**	**Soil**	**GC 58**	**06/26/13**	**06/28/13 02:32**	**130626L04**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	50-130	
2,4,5,6-Tetrachloro-m-Xylene	100	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-A**	**06/24/13 16:20**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 17:52**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.024	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.0066	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0066	0.020	0.0020	1	J
Pyrene	0.010	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	0.0036	0.020	0.0023	1	J
Benzo (k) Fluoranthene	0.0031	0.020	0.0028	1	J
Benzo (b) Fluoranthene	0.0035	0.020	0.0020	1	J
Benzo (a) Pyrene	0.0047	0.020	0.0020	1	J
Indeno (1,2,3-c,d) Pyrene	0.0041	0.020	0.0021	1	J
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	0.0059	0.020	0.0019	1	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	59	14-146	
Nitrobenzene-d5	76	18-162	
p-Terphenyl-d14	107	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-A**	**06/24/13 16:30**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 18:15**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.014	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0022	0.020	0.0020	1	J
Pyrene	0.0032	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	50	14-146	
Nitrobenzene-d5	52	18-162	
p-Terphenyl-d14	87	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

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Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-A**	**06/24/13 16:40**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 11:12**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.0061	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	68	14-146	
Nitrobenzene-d5	69	18-162	
p-Terphenyl-d14	109	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-A**	**06/25/13 08:55**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 11:35**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	14-146	
Nitrobenzene-d5	69	18-162	
p-Terphenyl-d14	113	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19DUP	**13-06-1682-7-A**	**06/25/13 09:00**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 11:58**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	63	14-146	
Nitrobenzene-d5	64	18-162	
p-Terphenyl-d14	96	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-29	**13-06-1682-8-A**	**06/25/13 09:30**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 12:21**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	69	14-146	
Nitrobenzene-d5	67	18-162	
p-Terphenyl-d14	103	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-A**	**06/25/13 09:45**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 18:39**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	14-146	
Nitrobenzene-d5	79	18-162	
p-Terphenyl-d14	109	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-A**	**06/25/13 11:45**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 12:44**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	14-146	
Nitrobenzene-d5	72	18-162	
p-Terphenyl-d14	102	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-A**	**06/25/13 12:05**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 13:08**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	14-146	
Nitrobenzene-d5	77	18-162	
p-Terphenyl-d14	103	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-29	**13-06-1682-12-A**	**06/25/13 12:20**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 13:31**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	14-146	
Nitrobenzene-d5	76	18-162	
p-Terphenyl-d14	103	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-A**	**06/25/13 13:00**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 19:02**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	92	14-146	
Nitrobenzene-d5	99	18-162	
p-Terphenyl-d14	116	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-A**	**06/25/13 13:35**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 13:54**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	14-146	
Nitrobenzene-d5	90	18-162	
p-Terphenyl-d14	103	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-A**	**06/25/13 13:45**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 14:18**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.013	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.0030	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0028	0.020	0.0020	1	J
Pyrene	0.0041	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	14-146	
Nitrobenzene-d5	89	18-162	
p-Terphenyl-d14	102	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-30	**13-06-1682-18-A**	**06/25/13 14:00**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 14:41**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	81	14-146	
Nitrobenzene-d5	85	18-162	
p-Terphenyl-d14	115	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-60	**13-06-1682-24-A**	**06/24/13 16:23**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 15:04**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	0.0021	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	88	14-146	
Nitrobenzene-d5	93	18-162	
p-Terphenyl-d14	109	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-70	**13-06-1682-25-A**	**06/25/13 07:54**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 15:27**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.018	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	0.0046	0.020	0.0036	1	J
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.012	0.020	0.0020	1	J
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.014	0.020	0.0020	1	J
Pyrene	0.020	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	0.0037	0.020	0.0023	1	J
Benzo (k) Fluoranthene	0.0031	0.020	0.0028	1	J
Benzo (b) Fluoranthene	0.0023	0.020	0.0020	1	J
Benzo (a) Pyrene	0.0054	0.020	0.0020	1	J
Indeno (1,2,3-c,d) Pyrene	0.0041	0.020	0.0021	1	J
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	0.0048	0.020	0.0019	1	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	81	14-146	
Nitrobenzene-d5	88	18-162	
p-Terphenyl-d14	105	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-70	**13-06-1682-26-A**	**06/25/13 07:54**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 15:50**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0069	0.020	0.0020	1	J
Pyrene	0.011	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	0.0027	0.020	0.0023	1	J
Benzo (k) Fluoranthene	0.0029	0.020	0.0028	1	J
Benzo (b) Fluoranthene	0.0041	0.020	0.0020	1	J
Benzo (a) Pyrene	0.0060	0.020	0.0020	1	J
Indeno (1,2,3-c,d) Pyrene	0.0064	0.020	0.0021	1	J
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	0.0081	0.020	0.0019	1	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	78	14-146	
Nitrobenzene-d5	88	18-162	
p-Terphenyl-d14	102	34-148	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-100	**13-06-1682-27-A**	**06/25/13 09:10**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 17:06**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	0.013	0.020	0.0060	1	J
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	0.0055	0.020	0.0036	1	J
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	0.016	0.020	0.0020	1	J
Anthracene	0.0025	0.020	0.0016	1	J
Fluoranthene	0.014	0.020	0.0020	1	J
Pyrene	0.024	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	0.0038	0.020	0.0023	1	J
Benzo (k) Fluoranthene	0.0032	0.020	0.0028	1	J
Benzo (b) Fluoranthene	0.0037	0.020	0.0020	1	J
Benzo (a) Pyrene	0.0066	0.020	0.0020	1	J
Indeno (1,2,3-c,d) Pyrene	0.0059	0.020	0.0021	1	J
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	0.0090	0.020	0.0019	1	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	80	14-146	
Nitrobenzene-d5	89	18-162	
p-Terphenyl-d14	115	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-110	**13-06-1682-28-A**	**06/25/13 09:56**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 17:29**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	0.0022	0.020	0.0020	1	J
Pyrene	0.0036	0.020	0.0020	1	J
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	0.0021	0.020	0.0020	1	J
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	86	14-146	
Nitrobenzene-d5	94	18-162	
p-Terphenyl-d14	110	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
Units: mg/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-06-010-1724**	**N/A**	**Soil**	**GC/MS EEE**	**06/26/13**	**06/29/13 10:48**	**130626L16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Naphthalene	ND	0.020	0.0060	1	
2-Methylnaphthalene	ND	0.020	0.0036	1	
1-Methylnaphthalene	ND	0.020	0.0040	1	
Acenaphthylene	ND	0.020	0.0030	1	
Acenaphthene	ND	0.020	0.0036	1	
Fluorene	ND	0.020	0.0029	1	
Phenanthrene	ND	0.020	0.0020	1	
Anthracene	ND	0.020	0.0016	1	
Fluoranthene	ND	0.020	0.0020	1	
Pyrene	ND	0.020	0.0020	1	
Benzo (a) Anthracene	ND	0.020	0.0031	1	
Chrysene	ND	0.020	0.0023	1	
Benzo (k) Fluoranthene	ND	0.020	0.0028	1	
Benzo (b) Fluoranthene	ND	0.020	0.0020	1	
Benzo (a) Pyrene	ND	0.020	0.0020	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.020	0.0021	1	
Dibenz (a,h) Anthracene	ND	0.020	0.0021	1	
Benzo (g,h,i) Perylene	ND	0.020	0.0019	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	94	14-146	
Nitrobenzene-d5	105	18-162	
p-Terphenyl-d14	119	34-148	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-02	**13-06-1682-3-F**	**06/24/13 16:20**	**Soil**	**GC/MS PP**	**06/24/13**	**06/27/13 17:18**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	14	39	4.9	0.787	J
Benzene	0.48	0.79	0.10	0.787	J
Bromobenzene	ND	0.79	0.16	0.787	
Bromochloromethane	ND	1.6	0.54	0.787	
Bromodichloromethane	ND	0.79	0.18	0.787	
Bromoform	ND	3.9	0.63	0.787	
Bromomethane	ND	16	7.4	0.787	
2-Butanone	ND	16	3.0	0.787	
n-Butylbenzene	ND	0.79	0.12	0.787	
sec-Butylbenzene	ND	0.79	0.45	0.787	
tert-Butylbenzene	ND	0.79	0.12	0.787	
Carbon Disulfide	0.59	7.9	0.24	0.787	J
Carbon Tetrachloride	ND	0.79	0.22	0.787	
Chlorobenzene	ND	0.79	0.18	0.787	
Chloroethane	ND	1.6	1.5	0.787	
Chloroform	ND	0.79	0.19	0.787	
Chloromethane	ND	16	0.54	0.787	
2-Chlorotoluene	ND	0.79	0.18	0.787	
4-Chlorotoluene	ND	0.79	0.17	0.787	
Dibromochloromethane	ND	1.6	0.45	0.787	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.4	0.787	
1,2-Dibromoethane	ND	0.79	0.20	0.787	
Dibromomethane	ND	0.79	0.61	0.787	
1,2-Dichlorobenzene	ND	0.79	0.18	0.787	
1,3-Dichlorobenzene	ND	0.79	0.14	0.787	
1,4-Dichlorobenzene	ND	0.79	0.17	0.787	
Dichlorodifluoromethane	ND	1.6	0.35	0.787	
1,1-Dichloroethane	ND	0.79	0.79	0.787	
1,2-Dichloroethane	ND	0.79	0.25	0.787	
1,1-Dichloroethene	ND	0.79	0.27	0.787	
c-1,2-Dichloroethene	ND	0.79	0.22	0.787	
t-1,2-Dichloroethene	ND	0.79	0.40	0.787	
1,2-Dichloropropane	ND	0.79	0.34	0.787	
1,3-Dichloropropane	ND	0.79	0.20	0.787	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	3.9	0.26	0.787	
1,1-Dichloropropene	ND	1.6	0.26	0.787	
c-1,3-Dichloropropene	ND	0.79	0.20	0.787	
t-1,3-Dichloropropene	ND	1.6	0.48	0.787	
Ethylbenzene	0.16	0.79	0.12	0.787	J
2-Hexanone	ND	16	1.4	0.787	
Isopropylbenzene	ND	0.79	0.43	0.787	
p-Isopropyltoluene	ND	0.79	0.50	0.787	
Methylene Chloride	ND	7.9	1.1	0.787	
4-Methyl-2-Pentanone	ND	16	3.4	0.787	
Naphthalene	ND	7.9	0.64	0.787	
n-Propylbenzene	ND	1.6	0.39	0.787	
Styrene	ND	0.79	0.48	0.787	
1,1,1,2-Tetrachloroethane	ND	0.79	0.19	0.787	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.787	
Tetrachloroethene	ND	0.79	0.17	0.787	
Toluene	ND	0.79	0.41	0.787	
1,2,3-Trichlorobenzene	ND	1.6	0.72	0.787	
1,2,4-Trichlorobenzene	ND	1.6	0.24	0.787	
1,1,1-Trichloroethane	ND	0.79	0.18	0.787	
1,1,2-Trichloroethane	ND	0.79	0.75	0.787	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	0.28	0.787	
Trichloroethene	ND	1.6	0.24	0.787	
Trichlorofluoromethane	ND	7.9	0.30	0.787	
1,2,3-Trichloropropane	ND	1.6	0.54	0.787	
1,2,4-Trimethylbenzene	ND	1.6	0.46	0.787	
1,3,5-Trimethylbenzene	ND	1.6	0.43	0.787	
Vinyl Acetate	ND	7.9	3.7	0.787	
Vinyl Chloride	ND	0.79	0.40	0.787	
p/m-Xylene	ND	1.6	0.21	0.787	
o-Xylene	ND	0.79	0.44	0.787	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.787	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.787	
Diisopropyl Ether (DIPE)	ND	0.79	0.38	0.787	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	0.40	0.787	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	0.28	0.787	
Ethanol	ND	390	66	0.787	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 3 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	115	79-133	
1,2-Dichloroethane-d4	137	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-05	**13-06-1682-4-E**	**06/24/13 16:30**	**Soil**	**GC/MS PP**	**06/24/13**	**06/26/13 21:55**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	26	39	4.9	0.778	J
Benzene	0.34	0.78	0.10	0.778	J
Bromobenzene	ND	0.78	0.16	0.778	
Bromochloromethane	ND	1.6	0.54	0.778	
Bromodichloromethane	ND	0.78	0.18	0.778	
Bromoform	ND	3.9	0.62	0.778	
Bromomethane	ND	16	7.3	0.778	
2-Butanone	3.2	16	2.9	0.778	J
n-Butylbenzene	ND	0.78	0.12	0.778	
sec-Butylbenzene	ND	0.78	0.45	0.778	
tert-Butylbenzene	ND	0.78	0.12	0.778	
Carbon Disulfide	0.73	7.8	0.24	0.778	J
Carbon Tetrachloride	ND	0.78	0.22	0.778	
Chlorobenzene	ND	0.78	0.17	0.778	
Chloroethane	ND	1.6	1.5	0.778	
Chloroform	ND	0.78	0.19	0.778	
Chloromethane	ND	16	0.54	0.778	
2-Chlorotoluene	ND	0.78	0.18	0.778	
4-Chlorotoluene	ND	0.78	0.17	0.778	
Dibromochloromethane	ND	1.6	0.44	0.778	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.4	0.778	
1,2-Dibromoethane	ND	0.78	0.20	0.778	
Dibromomethane	ND	0.78	0.60	0.778	
1,2-Dichlorobenzene	ND	0.78	0.18	0.778	
1,3-Dichlorobenzene	ND	0.78	0.14	0.778	
1,4-Dichlorobenzene	ND	0.78	0.17	0.778	
Dichlorodifluoromethane	ND	1.6	0.34	0.778	
1,1-Dichloroethane	ND	0.78	0.78	0.778	
1,2-Dichloroethane	ND	0.78	0.24	0.778	
1,1-Dichloroethene	ND	0.78	0.27	0.778	
c-1,2-Dichloroethene	ND	0.78	0.22	0.778	
t-1,2-Dichloroethene	ND	0.78	0.39	0.778	
1,2-Dichloropropane	ND	0.78	0.34	0.778	
1,3-Dichloropropane	ND	0.78	0.20	0.778	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	3.9	0.26	0.778	
1,1-Dichloropropene	ND	1.6	0.26	0.778	
c-1,3-Dichloropropene	ND	0.78	0.20	0.778	
t-1,3-Dichloropropene	ND	1.6	0.47	0.778	
Ethylbenzene	ND	0.78	0.12	0.778	
2-Hexanone	ND	16	1.4	0.778	
Isopropylbenzene	ND	0.78	0.42	0.778	
p-Isopropyltoluene	ND	0.78	0.49	0.778	
Methylene Chloride	ND	7.8	1.0	0.778	
4-Methyl-2-Pentanone	ND	16	3.4	0.778	
Naphthalene	ND	7.8	0.63	0.778	
n-Propylbenzene	ND	1.6	0.39	0.778	
Styrene	ND	0.78	0.47	0.778	
1,1,1,2-Tetrachloroethane	ND	0.78	0.19	0.778	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.778	
Tetrachloroethene	ND	0.78	0.16	0.778	
Toluene	ND	0.78	0.40	0.778	
1,2,3-Trichlorobenzene	ND	1.6	0.71	0.778	
1,2,4-Trichlorobenzene	ND	1.6	0.24	0.778	
1,1,1-Trichloroethane	ND	0.78	0.18	0.778	
1,1,2-Trichloroethane	ND	0.78	0.74	0.778	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	0.27	0.778	
Trichloroethene	ND	1.6	0.23	0.778	
Trichlorofluoromethane	ND	7.8	0.29	0.778	
1,2,3-Trichloropropane	ND	1.6	0.53	0.778	
1,2,4-Trimethylbenzene	ND	1.6	0.46	0.778	
1,3,5-Trimethylbenzene	ND	1.6	0.43	0.778	
Vinyl Acetate	ND	7.8	3.7	0.778	
Vinyl Chloride	ND	0.78	0.39	0.778	
p/m-Xylene	ND	1.6	0.21	0.778	
o-Xylene	ND	0.78	0.43	0.778	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.778	
Tert-Butyl Alcohol (TBA)	ND	16	4.0	0.778	
Diisopropyl Ether (DIPE)	ND	0.78	0.38	0.778	
Ethyl-t-Butyl Ether (ETBE)	ND	0.78	0.39	0.778	
Tert-Amyl-Methyl Ether (TAME)	ND	0.78	0.27	0.778	
Ethanol	ND	390	65	0.778	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 6 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	130	71-155	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-09	**13-06-1682-5-E**	**06/24/13 16:40**	**Soil**	**GC/MS PP**	**06/24/13**	**06/26/13 22:21**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	38	46	5.7	0.914	J
Benzene	2.4	0.91	0.12	0.914	
Bromobenzene	ND	0.91	0.19	0.914	
Bromochloromethane	ND	1.8	0.63	0.914	
Bromodichloromethane	ND	0.91	0.21	0.914	
Bromoform	ND	4.6	0.73	0.914	
Bromomethane	ND	18	8.6	0.914	
2-Butanone	5.3	18	3.4	0.914	J
n-Butylbenzene	ND	0.91	0.14	0.914	
sec-Butylbenzene	ND	0.91	0.53	0.914	
tert-Butylbenzene	ND	0.91	0.14	0.914	
Carbon Disulfide	0.52	9.1	0.28	0.914	J
Carbon Tetrachloride	ND	0.91	0.26	0.914	
Chlorobenzene	ND	0.91	0.20	0.914	
Chloroethane	ND	1.8	1.7	0.914	
Chloroform	ND	0.91	0.22	0.914	
Chloromethane	ND	18	0.63	0.914	
2-Chlorotoluene	ND	0.91	0.21	0.914	
4-Chlorotoluene	ND	0.91	0.19	0.914	
Dibromochloromethane	ND	1.8	0.52	0.914	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.914	
1,2-Dibromoethane	ND	0.91	0.23	0.914	
Dibromomethane	ND	0.91	0.71	0.914	
1,2-Dichlorobenzene	ND	0.91	0.21	0.914	
1,3-Dichlorobenzene	ND	0.91	0.16	0.914	
1,4-Dichlorobenzene	ND	0.91	0.20	0.914	
Dichlorodifluoromethane	ND	1.8	0.41	0.914	
1,1-Dichloroethane	ND	0.91	0.91	0.914	
1,2-Dichloroethane	ND	0.91	0.29	0.914	
1,1-Dichloroethene	ND	0.91	0.32	0.914	
c-1,2-Dichloroethene	ND	0.91	0.26	0.914	
t-1,2-Dichloroethene	ND	0.91	0.46	0.914	
1,2-Dichloropropane	ND	0.91	0.40	0.914	
1,3-Dichloropropane	ND	0.91	0.23	0.914	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.30	0.914	
1,1-Dichloropropene	ND	1.8	0.30	0.914	
c-1,3-Dichloropropene	ND	0.91	0.23	0.914	
t-1,3-Dichloropropene	ND	1.8	0.55	0.914	
Ethylbenzene	1.1	0.91	0.14	0.914	
2-Hexanone	ND	18	1.6	0.914	
Isopropylbenzene	ND	0.91	0.50	0.914	
p-Isopropyltoluene	ND	0.91	0.58	0.914	
Methylene Chloride	ND	9.1	1.2	0.914	
4-Methyl-2-Pentanone	ND	18	3.9	0.914	
Naphthalene	ND	9.1	0.74	0.914	
n-Propylbenzene	ND	1.8	0.46	0.914	
Styrene	ND	0.91	0.55	0.914	
1,1,1,2-Tetrachloroethane	ND	0.91	0.22	0.914	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.914	
Tetrachloroethene	ND	0.91	0.19	0.914	
Toluene	2.4	0.91	0.47	0.914	
1,2,3-Trichlorobenzene	ND	1.8	0.83	0.914	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.914	
1,1,1-Trichloroethane	ND	0.91	0.21	0.914	
1,1,2-Trichloroethane	ND	0.91	0.87	0.914	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.1	0.32	0.914	
Trichloroethene	ND	1.8	0.27	0.914	
Trichlorofluoromethane	ND	9.1	0.34	0.914	
1,2,3-Trichloropropane	ND	1.8	0.63	0.914	
1,2,4-Trimethylbenzene	ND	1.8	0.54	0.914	
1,3,5-Trimethylbenzene	ND	1.8	0.50	0.914	
Vinyl Acetate	ND	9.1	4.3	0.914	
Vinyl Chloride	ND	0.91	0.46	0.914	
p/m-Xylene	0.78	1.8	0.24	0.914	J
o-Xylene	ND	0.91	0.51	0.914	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.914	
Tert-Butyl Alcohol (TBA)	ND	18	4.7	0.914	
Diisopropyl Ether (DIPE)	ND	0.91	0.44	0.914	
Ethyl-t-Butyl Ether (ETBE)	ND	0.91	0.46	0.914	
Tert-Amyl-Methyl Ether (TAME)	ND	0.91	0.32	0.914	
Ethanol	ND	460	76	0.914	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 9 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	131	71-155	
Toluene-d8	98	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19	**13-06-1682-6-E**	**06/25/13 08:55**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 20:23**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	33	44	5.6	0.89	J
Benzene	1.0	0.89	0.12	0.89	
Bromobenzene	ND	0.89	0.19	0.89	
Bromochloromethane	ND	1.8	0.61	0.89	
Bromodichloromethane	ND	0.89	0.21	0.89	
Bromoform	ND	4.4	0.71	0.89	
Bromomethane	ND	18	8.4	0.89	
2-Butanone	4.7	18	3.4	0.89	J
n-Butylbenzene	0.28	0.89	0.14	0.89	J
sec-Butylbenzene	ND	0.89	0.51	0.89	
tert-Butylbenzene	ND	0.89	0.13	0.89	
Carbon Disulfide	0.38	8.9	0.27	0.89	J
Carbon Tetrachloride	ND	0.89	0.25	0.89	
Chlorobenzene	ND	0.89	0.20	0.89	
Chloroethane	ND	1.8	1.7	0.89	
Chloroform	ND	0.89	0.21	0.89	
Chloromethane	ND	18	0.61	0.89	
2-Chlorotoluene	ND	0.89	0.21	0.89	
4-Chlorotoluene	ND	0.89	0.19	0.89	
Dibromochloromethane	ND	1.8	0.51	0.89	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.89	
1,2-Dibromoethane	ND	0.89	0.23	0.89	
Dibromomethane	ND	0.89	0.69	0.89	
1,2-Dichlorobenzene	ND	0.89	0.20	0.89	
1,3-Dichlorobenzene	ND	0.89	0.16	0.89	
1,4-Dichlorobenzene	ND	0.89	0.20	0.89	
Dichlorodifluoromethane	ND	1.8	0.39	0.89	
1,1-Dichloroethane	ND	0.89	0.89	0.89	
1,2-Dichloroethane	ND	0.89	0.28	0.89	
1,1-Dichloroethene	ND	0.89	0.31	0.89	
c-1,2-Dichloroethene	ND	0.89	0.25	0.89	
t-1,2-Dichloroethene	ND	0.89	0.45	0.89	
1,2-Dichloropropane	ND	0.89	0.39	0.89	
1,3-Dichloropropane	ND	0.89	0.22	0.89	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.89	
1,1-Dichloropropene	ND	1.8	0.29	0.89	
c-1,3-Dichloropropene	ND	0.89	0.23	0.89	
t-1,3-Dichloropropene	ND	1.8	0.54	0.89	
Ethylbenzene	3.5	0.89	0.13	0.89	
2-Hexanone	ND	18	1.6	0.89	
Isopropylbenzene	ND	0.89	0.49	0.89	
p-Isopropyltoluene	ND	0.89	0.56	0.89	
Methylene Chloride	ND	8.9	1.2	0.89	
4-Methyl-2-Pentanone	ND	18	3.8	0.89	
Naphthalene	ND	8.9	0.72	0.89	
n-Propylbenzene	0.51	1.8	0.45	0.89	J
Styrene	ND	0.89	0.54	0.89	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	0.89	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	0.89	
Tetrachloroethene	ND	0.89	0.19	0.89	
Toluene	3.3	0.89	0.46	0.89	
1,2,3-Trichlorobenzene	ND	1.8	0.81	0.89	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.89	
1,1,1-Trichloroethane	ND	0.89	0.20	0.89	
1,1,2-Trichloroethane	ND	0.89	0.85	0.89	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	0.89	
Trichloroethene	ND	1.8	0.27	0.89	
Trichlorofluoromethane	ND	8.9	0.33	0.89	
1,2,3-Trichloropropane	ND	1.8	0.61	0.89	
1,2,4-Trimethylbenzene	0.57	1.8	0.52	0.89	J
1,3,5-Trimethylbenzene	ND	1.8	0.49	0.89	
Vinyl Acetate	ND	8.9	4.2	0.89	
Vinyl Chloride	ND	0.89	0.45	0.89	
p/m-Xylene	1.0	1.8	0.24	0.89	J
o-Xylene	ND	0.89	0.50	0.89	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.89	
Tert-Butyl Alcohol (TBA)	ND	18	4.6	0.89	
Diisopropyl Ether (DIPE)	ND	0.89	0.43	0.89	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	0.45	0.89	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	0.31	0.89	
Ethanol	ND	440	74	0.89	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 12 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	131	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-19DUP	**13-06-1682-7-E**	**06/25/13 09:00**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 20:49**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	26	46	5.7	0.919	J
Benzene	2.0	0.92	0.12	0.919	
Bromobenzene	ND	0.92	0.19	0.919	
Bromochloromethane	ND	1.8	0.63	0.919	
Bromodichloromethane	ND	0.92	0.21	0.919	
Bromoform	ND	4.6	0.73	0.919	
Bromomethane	ND	18	8.7	0.919	
2-Butanone	ND	18	3.5	0.919	
n-Butylbenzene	ND	0.92	0.14	0.919	
sec-Butylbenzene	ND	0.92	0.53	0.919	
tert-Butylbenzene	ND	0.92	0.14	0.919	
Carbon Disulfide	0.54	9.2	0.28	0.919	J
Carbon Tetrachloride	ND	0.92	0.26	0.919	
Chlorobenzene	ND	0.92	0.21	0.919	
Chloroethane	ND	1.8	1.7	0.919	
Chloroform	ND	0.92	0.22	0.919	
Chloromethane	ND	18	0.63	0.919	
2-Chlorotoluene	ND	0.92	0.21	0.919	
4-Chlorotoluene	ND	0.92	0.20	0.919	
Dibromochloromethane	ND	1.8	0.52	0.919	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.919	
1,2-Dibromoethane	ND	0.92	0.23	0.919	
Dibromomethane	ND	0.92	0.71	0.919	
1,2-Dichlorobenzene	ND	0.92	0.21	0.919	
1,3-Dichlorobenzene	ND	0.92	0.16	0.919	
1,4-Dichlorobenzene	ND	0.92	0.20	0.919	
Dichlorodifluoromethane	ND	1.8	0.41	0.919	
1,1-Dichloroethane	ND	0.92	0.92	0.919	
1,2-Dichloroethane	ND	0.92	0.29	0.919	
1,1-Dichloroethene	ND	0.92	0.32	0.919	
c-1,2-Dichloroethene	ND	0.92	0.26	0.919	
t-1,2-Dichloroethene	ND	0.92	0.47	0.919	
1,2-Dichloropropane	ND	0.92	0.40	0.919	
1,3-Dichloropropane	ND	0.92	0.23	0.919	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.30	0.919	
1,1-Dichloropropene	ND	1.8	0.30	0.919	
c-1,3-Dichloropropene	ND	0.92	0.23	0.919	
t-1,3-Dichloropropene	ND	1.8	0.56	0.919	
Ethylbenzene	2.0	0.92	0.14	0.919	
2-Hexanone	ND	18	1.6	0.919	
Isopropylbenzene	ND	0.92	0.50	0.919	
p-Isopropyltoluene	ND	0.92	0.58	0.919	
Methylene Chloride	ND	9.2	1.2	0.919	
4-Methyl-2-Pentanone	ND	18	4.0	0.919	
Naphthalene	ND	9.2	0.75	0.919	
n-Propylbenzene	ND	1.8	0.46	0.919	
Styrene	ND	0.92	0.56	0.919	
1,1,1,2-Tetrachloroethane	ND	0.92	0.22	0.919	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	0.919	
Tetrachloroethene	ND	0.92	0.19	0.919	
Toluene	3.1	0.92	0.47	0.919	
1,2,3-Trichlorobenzene	ND	1.8	0.84	0.919	
1,2,4-Trichlorobenzene	ND	1.8	0.29	0.919	
1,1,1-Trichloroethane	ND	0.92	0.21	0.919	
1,1,2-Trichloroethane	ND	0.92	0.87	0.919	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.2	0.32	0.919	
Trichloroethene	ND	1.8	0.28	0.919	
Trichlorofluoromethane	ND	9.2	0.34	0.919	
1,2,3-Trichloropropane	ND	1.8	0.63	0.919	
1,2,4-Trimethylbenzene	ND	1.8	0.54	0.919	
1,3,5-Trimethylbenzene	ND	1.8	0.50	0.919	
Vinyl Acetate	ND	9.2	4.4	0.919	
Vinyl Chloride	ND	0.92	0.46	0.919	
p/m-Xylene	0.93	1.8	0.25	0.919	J
o-Xylene	ND	0.92	0.51	0.919	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	0.919	
Tert-Butyl Alcohol (TBA)	ND	18	4.8	0.919	
Diisopropyl Ether (DIPE)	ND	0.92	0.44	0.919	
Ethyl-t-Butyl Ether (ETBE)	ND	0.92	0.47	0.919	
Tert-Amyl-Methyl Ether (TAME)	ND	0.92	0.32	0.919	
Ethanol	ND	460	77	0.919	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 15 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	134	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-05-29	**13-06-1682-8-E**	**06/25/13 09:30**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 21:16**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	42	5.2	0.84	J
Benzene	0.79	0.84	0.11	0.84	J
Bromobenzene	ND	0.84	0.18	0.84	
Bromochloromethane	ND	1.7	0.58	0.84	
Bromodichloromethane	ND	0.84	0.20	0.84	
Bromoform	ND	4.2	0.67	0.84	
Bromomethane	ND	17	7.9	0.84	
2-Butanone	ND	17	3.2	0.84	
n-Butylbenzene	ND	0.84	0.13	0.84	
sec-Butylbenzene	ND	0.84	0.49	0.84	
tert-Butylbenzene	ND	0.84	0.13	0.84	
Carbon Disulfide	ND	8.4	0.26	0.84	
Carbon Tetrachloride	ND	0.84	0.24	0.84	
Chlorobenzene	ND	0.84	0.19	0.84	
Chloroethane	ND	1.7	1.6	0.84	
Chloroform	ND	0.84	0.20	0.84	
Chloromethane	ND	17	0.58	0.84	
2-Chlorotoluene	ND	0.84	0.19	0.84	
4-Chlorotoluene	ND	0.84	0.18	0.84	
Dibromochloromethane	ND	1.7	0.48	0.84	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.5	0.84	
1,2-Dibromoethane	ND	0.84	0.21	0.84	
Dibromomethane	ND	0.84	0.65	0.84	
1,2-Dichlorobenzene	ND	0.84	0.19	0.84	
1,3-Dichlorobenzene	ND	0.84	0.15	0.84	
1,4-Dichlorobenzene	ND	0.84	0.19	0.84	
Dichlorodifluoromethane	ND	1.7	0.37	0.84	
1,1-Dichloroethane	ND	0.84	0.84	0.84	
1,2-Dichloroethane	ND	0.84	0.26	0.84	
1,1-Dichloroethene	ND	0.84	0.29	0.84	
c-1,2-Dichloroethene	ND	0.84	0.24	0.84	
t-1,2-Dichloroethene	ND	0.84	0.43	0.84	
1,2-Dichloropropane	ND	0.84	0.37	0.84	
1,3-Dichloropropane	ND	0.84	0.21	0.84	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.2	0.28	0.84	
1,1-Dichloropropene	ND	1.7	0.28	0.84	
c-1,3-Dichloropropene	ND	0.84	0.21	0.84	
t-1,3-Dichloropropene	ND	1.7	0.51	0.84	
Ethylbenzene	ND	0.84	0.13	0.84	
2-Hexanone	ND	17	1.5	0.84	
Isopropylbenzene	ND	0.84	0.46	0.84	
p-Isopropyltoluene	ND	0.84	0.53	0.84	
Methylene Chloride	ND	8.4	1.1	0.84	
4-Methyl-2-Pentanone	ND	17	3.6	0.84	
Naphthalene	ND	8.4	0.68	0.84	
n-Propylbenzene	ND	1.7	0.42	0.84	
Styrene	ND	0.84	0.51	0.84	
1,1,1,2-Tetrachloroethane	ND	0.84	0.20	0.84	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	0.84	
Tetrachloroethene	ND	0.84	0.18	0.84	
Toluene	0.47	0.84	0.43	0.84	J
1,2,3-Trichlorobenzene	ND	1.7	0.77	0.84	
1,2,4-Trichlorobenzene	ND	1.7	0.26	0.84	
1,1,1-Trichloroethane	ND	0.84	0.19	0.84	
1,1,2-Trichloroethane	ND	0.84	0.80	0.84	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	0.30	0.84	
Trichloroethene	ND	1.7	0.25	0.84	
Trichlorofluoromethane	ND	8.4	0.32	0.84	
1,2,3-Trichloropropane	ND	1.7	0.58	0.84	
1,2,4-Trimethylbenzene	ND	1.7	0.49	0.84	
1,3,5-Trimethylbenzene	ND	1.7	0.46	0.84	
Vinyl Acetate	ND	8.4	4.0	0.84	
Vinyl Chloride	ND	0.84	0.42	0.84	
p/m-Xylene	ND	1.7	0.22	0.84	
o-Xylene	ND	0.84	0.47	0.84	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	0.84	
Tert-Butyl Alcohol (TBA)	ND	17	4.3	0.84	
Diisopropyl Ether (DIPE)	ND	0.84	0.41	0.84	
Ethyl-t-Butyl Ether (ETBE)	ND	0.84	0.43	0.84	
Tert-Amyl-Methyl Ether (TAME)	ND	0.84	0.30	0.84	
Ethanol	ND	420	70	0.84	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 18 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	134	71-155	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-05	**13-06-1682-9-E**	**06/25/13 09:45**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 21:42**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	62	40	5.0	0.8	
Benzene	5.6	0.80	0.10	0.8	
Bromobenzene	ND	0.80	0.17	0.8	
Bromochloromethane	ND	1.6	0.55	0.8	
Bromodichloromethane	ND	0.80	0.19	0.8	
Bromoform	ND	4.0	0.64	0.8	
Bromomethane	ND	16	7.5	0.8	
2-Butanone	6.8	16	3.0	0.8	J
n-Butylbenzene	ND	0.80	0.13	0.8	
sec-Butylbenzene	ND	0.80	0.46	0.8	
tert-Butylbenzene	ND	0.80	0.12	0.8	
Carbon Disulfide	0.99	8.0	0.24	0.8	J
Carbon Tetrachloride	ND	0.80	0.23	0.8	
Chlorobenzene	ND	0.80	0.18	0.8	
Chloroethane	ND	1.6	1.5	0.8	
Chloroform	ND	0.80	0.19	0.8	
Chloromethane	ND	16	0.55	0.8	
2-Chlorotoluene	ND	0.80	0.19	0.8	
4-Chlorotoluene	ND	0.80	0.17	0.8	
Dibromochloromethane	ND	1.6	0.46	0.8	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.8	
1,2-Dibromoethane	ND	0.80	0.20	0.8	
Dibromomethane	ND	0.80	0.62	0.8	
1,2-Dichlorobenzene	ND	0.80	0.18	0.8	
1,3-Dichlorobenzene	ND	0.80	0.14	0.8	
1,4-Dichlorobenzene	ND	0.80	0.18	0.8	
Dichlorodifluoromethane	ND	1.6	0.35	0.8	
1,1-Dichloroethane	ND	0.80	0.80	0.8	
1,2-Dichloroethane	ND	0.80	0.25	0.8	
1,1-Dichloroethene	ND	0.80	0.28	0.8	
c-1,2-Dichloroethene	ND	0.80	0.22	0.8	
t-1,2-Dichloroethene	ND	0.80	0.40	0.8	
1,2-Dichloropropane	ND	0.80	0.35	0.8	
1,3-Dichloropropane	ND	0.80	0.20	0.8	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.8	
1,1-Dichloropropene	ND	1.6	0.26	0.8	
c-1,3-Dichloropropene	ND	0.80	0.20	0.8	
t-1,3-Dichloropropene	ND	1.6	0.48	0.8	
Ethylbenzene	2.3	0.80	0.12	0.8	
2-Hexanone	ND	16	1.4	0.8	
Isopropylbenzene	ND	0.80	0.44	0.8	
p-Isopropyltoluene	ND	0.80	0.50	0.8	
Methylene Chloride	ND	8.0	1.1	0.8	
4-Methyl-2-Pentanone	ND	16	3.5	0.8	
Naphthalene	ND	8.0	0.65	0.8	
n-Propylbenzene	ND	1.6	0.40	0.8	
Styrene	ND	0.80	0.48	0.8	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	0.8	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	0.8	
Tetrachloroethene	0.25	0.80	0.17	0.8	J
Toluene	6.4	0.80	0.41	0.8	
1,2,3-Trichlorobenzene	ND	1.6	0.73	0.8	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.8	
1,1,1-Trichloroethane	ND	0.80	0.18	0.8	
1,1,2-Trichloroethane	ND	0.80	0.76	0.8	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	0.8	
Trichloroethene	ND	1.6	0.24	0.8	
Trichlorofluoromethane	ND	8.0	0.30	0.8	
1,2,3-Trichloropropane	ND	1.6	0.55	0.8	
1,2,4-Trimethylbenzene	0.48	1.6	0.47	0.8	J
1,3,5-Trimethylbenzene	ND	1.6	0.44	0.8	
Vinyl Acetate	ND	8.0	3.8	0.8	
Vinyl Chloride	ND	0.80	0.40	0.8	
p/m-Xylene	2.0	1.6	0.21	0.8	
o-Xylene	0.73	0.80	0.45	0.8	J
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	0.8	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.8	
Diisopropyl Ether (DIPE)	ND	0.80	0.39	0.8	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	0.40	0.8	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	0.28	0.8	
Ethanol	ND	400	67	0.8	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 21 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	112	79-133	
1,2-Dichloroethane-d4	136	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-09	**13-06-1682-10-E**	**06/25/13 11:45**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 22:08**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	49	46	5.8	0.929	
Benzene	2.7	0.93	0.12	0.929	
Bromobenzene	ND	0.93	0.19	0.929	
Bromochloromethane	ND	1.9	0.64	0.929	
Bromodichloromethane	ND	0.93	0.22	0.929	
Bromoform	ND	4.6	0.74	0.929	
Bromomethane	ND	19	8.8	0.929	
2-Butanone	5.8	19	3.5	0.929	J
n-Butylbenzene	ND	0.93	0.15	0.929	
sec-Butylbenzene	ND	0.93	0.54	0.929	
tert-Butylbenzene	ND	0.93	0.14	0.929	
Carbon Disulfide	0.89	9.3	0.28	0.929	J
Carbon Tetrachloride	ND	0.93	0.26	0.929	
Chlorobenzene	ND	0.93	0.21	0.929	
Chloroethane	ND	1.9	1.7	0.929	
Chloroform	ND	0.93	0.22	0.929	
Chloromethane	ND	19	0.64	0.929	
2-Chlorotoluene	ND	0.93	0.21	0.929	
4-Chlorotoluene	ND	0.93	0.20	0.929	
Dibromochloromethane	ND	1.9	0.53	0.929	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	0.929	
1,2-Dibromoethane	ND	0.93	0.24	0.929	
Dibromomethane	ND	0.93	0.72	0.929	
1,2-Dichlorobenzene	ND	0.93	0.21	0.929	
1,3-Dichlorobenzene	ND	0.93	0.16	0.929	
1,4-Dichlorobenzene	ND	0.93	0.21	0.929	
Dichlorodifluoromethane	ND	1.9	0.41	0.929	
1,1-Dichloroethane	ND	0.93	0.93	0.929	
1,2-Dichloroethane	ND	0.93	0.29	0.929	
1,1-Dichloroethene	ND	0.93	0.32	0.929	
c-1,2-Dichloroethene	ND	0.93	0.26	0.929	
t-1,2-Dichloroethene	ND	0.93	0.47	0.929	
1,2-Dichloropropane	ND	0.93	0.41	0.929	
1,3-Dichloropropane	ND	0.93	0.23	0.929	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.6	0.31	0.929	
1,1-Dichloropropene	ND	1.9	0.30	0.929	
c-1,3-Dichloropropene	ND	0.93	0.24	0.929	
t-1,3-Dichloropropene	ND	1.9	0.56	0.929	
Ethylbenzene	1.4	0.93	0.14	0.929	
2-Hexanone	ND	19	1.6	0.929	
Isopropylbenzene	ND	0.93	0.51	0.929	
p-Isopropyltoluene	ND	0.93	0.59	0.929	
Methylene Chloride	ND	9.3	1.2	0.929	
4-Methyl-2-Pentanone	ND	19	4.0	0.929	
Naphthalene	ND	9.3	0.76	0.929	
n-Propylbenzene	ND	1.9	0.47	0.929	
Styrene	ND	0.93	0.56	0.929	
1,1,1,2-Tetrachloroethane	ND	0.93	0.22	0.929	
1,1,2,2-Tetrachloroethane	ND	1.9	0.32	0.929	
Tetrachloroethene	ND	0.93	0.19	0.929	
Toluene	2.7	0.93	0.48	0.929	
1,2,3-Trichlorobenzene	ND	1.9	0.85	0.929	
1,2,4-Trichlorobenzene	ND	1.9	0.29	0.929	
1,1,1-Trichloroethane	ND	0.93	0.21	0.929	
1,1,2-Trichloroethane	ND	0.93	0.88	0.929	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.3	0.33	0.929	
Trichloroethene	ND	1.9	0.28	0.929	
Trichlorofluoromethane	ND	9.3	0.35	0.929	
1,2,3-Trichloropropane	ND	1.9	0.64	0.929	
1,2,4-Trimethylbenzene	ND	1.9	0.54	0.929	
1,3,5-Trimethylbenzene	ND	1.9	0.51	0.929	
Vinyl Acetate	ND	9.3	4.4	0.929	
Vinyl Chloride	ND	0.93	0.47	0.929	
p/m-Xylene	0.86	1.9	0.25	0.929	J
o-Xylene	ND	0.93	0.52	0.929	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.27	0.929	
Tert-Butyl Alcohol (TBA)	ND	19	4.8	0.929	
Diisopropyl Ether (DIPE)	ND	0.93	0.45	0.929	
Ethyl-t-Butyl Ether (ETBE)	ND	0.93	0.47	0.929	
Tert-Amyl-Methyl Ether (TAME)	ND	0.93	0.33	0.929	
Ethanol	ND	460	78	0.929	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 24 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	114	79-133	
1,2-Dichloroethane-d4	137	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20	**13-06-1682-11-E**	**06/25/13 12:05**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 22:35**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	47	50	6.2	0.99	J
Benzene	0.86	0.99	0.13	0.99	J
Bromobenzene	ND	0.99	0.21	0.99	
Bromochloromethane	ND	2.0	0.68	0.99	
Bromodichloromethane	ND	0.99	0.23	0.99	
Bromoform	ND	5.0	0.79	0.99	
Bromomethane	ND	20	9.3	0.99	
2-Butanone	6.1	20	3.7	0.99	J
n-Butylbenzene	ND	0.99	0.15	0.99	
sec-Butylbenzene	ND	0.99	0.57	0.99	
tert-Butylbenzene	ND	0.99	0.15	0.99	
Carbon Disulfide	ND	9.9	0.30	0.99	
Carbon Tetrachloride	ND	0.99	0.28	0.99	
Chlorobenzene	ND	0.99	0.22	0.99	
Chloroethane	ND	2.0	1.9	0.99	
Chloroform	ND	0.99	0.24	0.99	
Chloromethane	ND	20	0.68	0.99	
2-Chlorotoluene	ND	0.99	0.23	0.99	
4-Chlorotoluene	ND	0.99	0.21	0.99	
Dibromochloromethane	ND	2.0	0.56	0.99	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	0.99	
1,2-Dibromoethane	ND	0.99	0.25	0.99	
Dibromomethane	ND	0.99	0.77	0.99	
1,2-Dichlorobenzene	ND	0.99	0.23	0.99	
1,3-Dichlorobenzene	ND	0.99	0.17	0.99	
1,4-Dichlorobenzene	ND	0.99	0.22	0.99	
Dichlorodifluoromethane	ND	2.0	0.44	0.99	
1,1-Dichloroethane	ND	0.99	0.99	0.99	
1,2-Dichloroethane	ND	0.99	0.31	0.99	
1,1-Dichloroethene	ND	0.99	0.34	0.99	
c-1,2-Dichloroethene	ND	0.99	0.28	0.99	
t-1,2-Dichloroethene	ND	0.99	0.50	0.99	
1,2-Dichloropropane	ND	0.99	0.43	0.99	
1,3-Dichloropropane	ND	0.99	0.25	0.99	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	0.99	
1,1-Dichloropropene	ND	2.0	0.33	0.99	
c-1,3-Dichloropropene	ND	0.99	0.25	0.99	
t-1,3-Dichloropropene	ND	2.0	0.60	0.99	
Ethylbenzene	ND	0.99	0.15	0.99	
2-Hexanone	ND	20	1.7	0.99	
Isopropylbenzene	ND	0.99	0.54	0.99	
p-Isopropyltoluene	ND	0.99	0.62	0.99	
Methylene Chloride	ND	9.9	1.3	0.99	
4-Methyl-2-Pentanone	ND	20	4.3	0.99	
Naphthalene	ND	9.9	0.81	0.99	
n-Propylbenzene	ND	2.0	0.50	0.99	
Styrene	ND	0.99	0.60	0.99	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	0.99	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.99	
Tetrachloroethene	ND	0.99	0.21	0.99	
Toluene	0.60	0.99	0.51	0.99	J
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.99	
1,2,4-Trichlorobenzene	ND	2.0	0.31	0.99	
1,1,1-Trichloroethane	ND	0.99	0.22	0.99	
1,1,2-Trichloroethane	ND	0.99	0.94	0.99	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	0.99	
Trichloroethene	ND	2.0	0.30	0.99	
Trichlorofluoromethane	ND	9.9	0.37	0.99	
1,2,3-Trichloropropane	ND	2.0	0.68	0.99	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.99	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.99	
Vinyl Acetate	ND	9.9	4.7	0.99	
Vinyl Chloride	ND	0.99	0.50	0.99	
p/m-Xylene	ND	2.0	0.27	0.99	
o-Xylene	ND	0.99	0.55	0.99	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.99	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.99	
Diisopropyl Ether (DIPE)	ND	0.99	0.48	0.99	
Ethyl-t-Butyl Ether (ETBE)	ND	0.99	0.50	0.99	
Tert-Amyl-Methyl Ether (TAME)	ND	0.99	0.35	0.99	
Ethanol	ND	500	83	0.99	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 27 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	133	71-155	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-37	**13-06-1682-13-E**	**06/25/13 12:35**	**Soil**	**GC/MS PP**	**06/25/13**	**06/27/13 23:01**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	84	54	6.8	1.09	
Benzene	1.2	1.1	0.14	1.09	
Bromobenzene	ND	1.1	0.23	1.09	
Bromochloromethane	ND	2.2	0.75	1.09	
Bromodichloromethane	ND	1.1	0.25	1.09	
Bromoform	ND	5.4	0.87	1.09	
Bromomethane	ND	22	10	1.09	
2-Butanone	8.7	22	4.1	1.09	J
n-Butylbenzene	ND	1.1	0.17	1.09	
sec-Butylbenzene	ND	1.1	0.63	1.09	
tert-Butylbenzene	ND	1.1	0.16	1.09	
Carbon Disulfide	ND	11	0.33	1.09	
Carbon Tetrachloride	ND	1.1	0.31	1.09	
Chlorobenzene	ND	1.1	0.24	1.09	
Chloroethane	ND	2.2	2.0	1.09	
Chloroform	ND	1.1	0.26	1.09	
Chloromethane	ND	22	0.75	1.09	
2-Chlorotoluene	ND	1.1	0.25	1.09	
4-Chlorotoluene	ND	1.1	0.23	1.09	
Dibromochloromethane	ND	2.2	0.62	1.09	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.09	
1,2-Dibromoethane	ND	1.1	0.28	1.09	
Dibromomethane	ND	1.1	0.84	1.09	
1,2-Dichlorobenzene	ND	1.1	0.25	1.09	
1,3-Dichlorobenzene	ND	1.1	0.19	1.09	
1,4-Dichlorobenzene	ND	1.1	0.24	1.09	
Dichlorodifluoromethane	ND	2.2	0.48	1.09	
1,1-Dichloroethane	ND	1.1	1.1	1.09	
1,2-Dichloroethane	ND	1.1	0.34	1.09	
1,1-Dichloroethene	ND	1.1	0.38	1.09	
c-1,2-Dichloroethene	ND	1.1	0.30	1.09	
t-1,2-Dichloroethene	ND	1.1	0.55	1.09	
1,2-Dichloropropane	ND	1.1	0.48	1.09	
1,3-Dichloropropane	ND	1.1	0.28	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.09	
1,1-Dichloropropene	ND	2.2	0.36	1.09	
c-1,3-Dichloropropene	ND	1.1	0.28	1.09	
t-1,3-Dichloropropene	ND	2.2	0.66	1.09	
Ethylbenzene	0.25	1.1	0.17	1.09	J
2-Hexanone	ND	22	1.9	1.09	
Isopropylbenzene	ND	1.1	0.60	1.09	
p-Isopropyltoluene	ND	1.1	0.69	1.09	
Methylene Chloride	ND	11	1.5	1.09	
4-Methyl-2-Pentanone	ND	22	4.7	1.09	
Naphthalene	ND	11	0.89	1.09	
n-Propylbenzene	ND	2.2	0.55	1.09	
Styrene	ND	1.1	0.66	1.09	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.09	
1,1,2,2-Tetrachloroethane	ND	2.2	0.38	1.09	
Tetrachloroethene	ND	1.1	0.23	1.09	
Toluene	0.91	1.1	0.56	1.09	J
1,2,3-Trichlorobenzene	ND	2.2	1.0	1.09	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.09	
1,1,1-Trichloroethane	ND	1.1	0.25	1.09	
1,1,2-Trichloroethane	ND	1.1	1.0	1.09	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.09	
Trichloroethene	ND	2.2	0.33	1.09	
Trichlorofluoromethane	ND	11	0.41	1.09	
1,2,3-Trichloropropane	ND	2.2	0.75	1.09	
1,2,4-Trimethylbenzene	ND	2.2	0.64	1.09	
1,3,5-Trimethylbenzene	ND	2.2	0.60	1.09	
Vinyl Acetate	ND	11	5.2	1.09	
Vinyl Chloride	ND	1.1	0.55	1.09	
p/m-Xylene	0.55	2.2	0.29	1.09	J
o-Xylene	ND	1.1	0.61	1.09	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.09	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.09	
Diisopropyl Ether (DIPE)	ND	1.1	0.53	1.09	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.09	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.09	
Ethanol	ND	540	91	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 30 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	113	79-133	
1,2-Dichloroethane-d4	137	71-155	
Toluene-d8	97	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-05	**13-06-1682-15-E**	**06/25/13 13:00**	**Soil**	**GC/MS BB**	**06/25/13**	**06/27/13 00:53**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	33	48	6.0	0.954	J
Benzene	2.9	0.95	0.12	0.954	
Bromobenzene	ND	0.95	0.20	0.954	
Bromochloromethane	ND	1.9	0.66	0.954	
Bromodichloromethane	ND	0.95	0.22	0.954	
Bromoform	ND	4.8	0.76	0.954	
Bromomethane	ND	19	9.0	0.954	
2-Butanone	8.3	19	3.6	0.954	J
n-Butylbenzene	ND	0.95	0.15	0.954	
sec-Butylbenzene	ND	0.95	0.55	0.954	
tert-Butylbenzene	ND	0.95	0.14	0.954	
Carbon Disulfide	0.58	9.5	0.29	0.954	J
Carbon Tetrachloride	ND	0.95	0.27	0.954	
Chlorobenzene	ND	0.95	0.21	0.954	
Chloroethane	ND	1.9	1.8	0.954	
Chloroform	ND	0.95	0.23	0.954	
Chloromethane	ND	19	0.66	0.954	
2-Chlorotoluene	ND	0.95	0.22	0.954	
4-Chlorotoluene	ND	0.95	0.20	0.954	
Dibromochloromethane	ND	1.9	0.54	0.954	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.954	
1,2-Dibromoethane	ND	0.95	0.24	0.954	
Dibromomethane	ND	0.95	0.74	0.954	
1,2-Dichlorobenzene	ND	0.95	0.22	0.954	
1,3-Dichlorobenzene	ND	0.95	0.17	0.954	
1,4-Dichlorobenzene	ND	0.95	0.21	0.954	
Dichlorodifluoromethane	ND	1.9	0.42	0.954	
1,1-Dichloroethane	ND	0.95	0.95	0.954	
1,2-Dichloroethane	ND	0.95	0.30	0.954	
1,1-Dichloroethene	ND	0.95	0.33	0.954	
c-1,2-Dichloroethene	ND	0.95	0.27	0.954	
t-1,2-Dichloroethene	ND	0.95	0.48	0.954	
1,2-Dichloropropane	ND	0.95	0.42	0.954	
1,3-Dichloropropane	ND	0.95	0.24	0.954	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.32	0.954	
1,1-Dichloropropene	ND	1.9	0.31	0.954	
c-1,3-Dichloropropene	ND	0.95	0.24	0.954	
t-1,3-Dichloropropene	ND	1.9	0.58	0.954	
Ethylbenzene	1.6	0.95	0.14	0.954	
2-Hexanone	ND	19	1.7	0.954	
Isopropylbenzene	ND	0.95	0.52	0.954	
p-Isopropyltoluene	ND	0.95	0.60	0.954	
Methylene Chloride	ND	9.5	1.3	0.954	
4-Methyl-2-Pentanone	ND	19	4.1	0.954	
Naphthalene	ND	9.5	0.78	0.954	
n-Propylbenzene	ND	1.9	0.48	0.954	
Styrene	ND	0.95	0.58	0.954	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	0.954	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.954	
Tetrachloroethene	ND	0.95	0.20	0.954	
Toluene	3.0	0.95	0.49	0.954	
1,2,3-Trichlorobenzene	ND	1.9	0.87	0.954	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.954	
1,1,1-Trichloroethane	ND	0.95	0.21	0.954	
1,1,2-Trichloroethane	ND	0.95	0.91	0.954	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.34	0.954	
Trichloroethene	ND	1.9	0.29	0.954	
Trichlorofluoromethane	ND	9.5	0.36	0.954	
1,2,3-Trichloropropane	ND	1.9	0.65	0.954	
1,2,4-Trimethylbenzene	0.62	1.9	0.56	0.954	J
1,3,5-Trimethylbenzene	ND	1.9	0.52	0.954	
Vinyl Acetate	ND	9.5	4.5	0.954	
Vinyl Chloride	ND	0.95	0.48	0.954	
p/m-Xylene	1.1	1.9	0.26	0.954	J
o-Xylene	ND	0.95	0.53	0.954	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.954	
Tert-Butyl Alcohol (TBA)	ND	19	4.9	0.954	
Diisopropyl Ether (DIPE)	ND	0.95	0.46	0.954	
Ethyl-t-Butyl Ether (ETBE)	ND	0.95	0.48	0.954	
Tert-Amyl-Methyl Ether (TAME)	ND	0.95	0.34	0.954	
Ethanol	ND	480	80	0.954	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 33 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-09	**13-06-1682-16-E**	**06/25/13 13:35**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 19:04**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	18	44	5.5	0.882	J
Benzene	3.1	0.88	0.11	0.882	
Bromobenzene	ND	0.88	0.18	0.882	
Bromochloromethane	ND	1.8	0.61	0.882	
Bromodichloromethane	ND	0.88	0.21	0.882	
Bromoform	ND	4.4	0.70	0.882	
Bromomethane	ND	18	8.3	0.882	
2-Butanone	5.6	18	3.3	0.882	J
n-Butylbenzene	0.14	0.88	0.14	0.882	J
sec-Butylbenzene	ND	0.88	0.51	0.882	
tert-Butylbenzene	ND	0.88	0.13	0.882	
Carbon Disulfide	0.37	8.8	0.27	0.882	J
Carbon Tetrachloride	ND	0.88	0.25	0.882	
Chlorobenzene	ND	0.88	0.20	0.882	
Chloroethane	ND	1.8	1.7	0.882	
Chloroform	ND	0.88	0.21	0.882	
Chloromethane	ND	18	0.61	0.882	
2-Chlorotoluene	ND	0.88	0.20	0.882	
4-Chlorotoluene	ND	0.88	0.19	0.882	
Dibromochloromethane	ND	1.8	0.50	0.882	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.882	
1,2-Dibromoethane	ND	0.88	0.23	0.882	
Dibromomethane	ND	0.88	0.68	0.882	
1,2-Dichlorobenzene	ND	0.88	0.20	0.882	
1,3-Dichlorobenzene	ND	0.88	0.16	0.882	
1,4-Dichlorobenzene	ND	0.88	0.20	0.882	
Dichlorodifluoromethane	ND	1.8	0.39	0.882	
1,1-Dichloroethane	ND	0.88	0.88	0.882	
1,2-Dichloroethane	ND	0.88	0.28	0.882	
1,1-Dichloroethene	ND	0.88	0.31	0.882	
c-1,2-Dichloroethene	ND	0.88	0.25	0.882	
t-1,2-Dichloroethene	ND	0.88	0.45	0.882	
1,2-Dichloropropane	ND	0.88	0.39	0.882	
1,3-Dichloropropane	ND	0.88	0.22	0.882	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.882	
1,1-Dichloropropene	ND	1.8	0.29	0.882	
c-1,3-Dichloropropene	ND	0.88	0.22	0.882	
t-1,3-Dichloropropene	ND	1.8	0.53	0.882	
Ethylbenzene	1.4	0.88	0.13	0.882	
2-Hexanone	ND	18	1.6	0.882	
Isopropylbenzene	ND	0.88	0.48	0.882	
p-Isopropyltoluene	ND	0.88	0.56	0.882	
Methylene Chloride	ND	8.8	1.2	0.882	
4-Methyl-2-Pentanone	ND	18	3.8	0.882	
Naphthalene	ND	8.8	0.72	0.882	
n-Propylbenzene	ND	1.8	0.44	0.882	
Styrene	ND	0.88	0.53	0.882	
1,1,1,2-Tetrachloroethane	ND	0.88	0.21	0.882	
1,1,2,2-Tetrachloroethane	ND	1.8	0.30	0.882	
Tetrachloroethene	ND	0.88	0.19	0.882	
Toluene	2.8	0.88	0.45	0.882	
1,2,3-Trichlorobenzene	ND	1.8	0.81	0.882	
1,2,4-Trichlorobenzene	ND	1.8	0.27	0.882	
1,1,1-Trichloroethane	ND	0.88	0.20	0.882	
1,1,2-Trichloroethane	ND	0.88	0.84	0.882	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	0.31	0.882	
Trichloroethene	ND	1.8	0.27	0.882	
Trichlorofluoromethane	ND	8.8	0.33	0.882	
1,2,3-Trichloropropane	ND	1.8	0.60	0.882	
1,2,4-Trimethylbenzene	0.53	1.8	0.52	0.882	J
1,3,5-Trimethylbenzene	ND	1.8	0.48	0.882	
Vinyl Acetate	ND	8.8	4.2	0.882	
Vinyl Chloride	ND	0.88	0.44	0.882	
p/m-Xylene	0.99	1.8	0.24	0.882	J
o-Xylene	ND	0.88	0.49	0.882	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.882	
Tert-Butyl Alcohol (TBA)	ND	18	4.6	0.882	
Diisopropyl Ether (DIPE)	ND	0.88	0.43	0.882	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	0.45	0.882	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	0.31	0.882	
Ethanol	ND	440	74	0.882	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 36 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-20	**13-06-1682-17-E**	**06/25/13 13:45**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 19:33**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	17	57	7.1	1.14	J
Benzene	2.3	1.1	0.15	1.14	
Bromobenzene	ND	1.1	0.24	1.14	
Bromochloromethane	ND	2.3	0.79	1.14	
Bromodichloromethane	ND	1.1	0.27	1.14	
Bromoform	ND	5.7	0.91	1.14	
Bromomethane	ND	23	11	1.14	
2-Butanone	6.1	23	4.3	1.14	J
n-Butylbenzene	0.18	1.1	0.18	1.14	J
sec-Butylbenzene	ND	1.1	0.66	1.14	
tert-Butylbenzene	ND	1.1	0.17	1.14	
Carbon Disulfide	ND	11	0.35	1.14	
Carbon Tetrachloride	ND	1.1	0.32	1.14	
Chlorobenzene	ND	1.1	0.26	1.14	
Chloroethane	ND	2.3	2.1	1.14	
Chloroform	ND	1.1	0.27	1.14	
Chloromethane	ND	23	0.78	1.14	
2-Chlorotoluene	ND	1.1	0.26	1.14	
4-Chlorotoluene	ND	1.1	0.24	1.14	
Dibromochloromethane	ND	2.3	0.65	1.14	
1,2-Dibromo-3-Chloropropane	ND	5.7	2.0	1.14	
1,2-Dibromoethane	ND	1.1	0.29	1.14	
Dibromomethane	ND	1.1	0.88	1.14	
1,2-Dichlorobenzene	ND	1.1	0.26	1.14	
1,3-Dichlorobenzene	ND	1.1	0.20	1.14	
1,4-Dichlorobenzene	ND	1.1	0.25	1.14	
Dichlorodifluoromethane	ND	2.3	0.51	1.14	
1,1-Dichloroethane	ND	1.1	1.1	1.14	
1,2-Dichloroethane	ND	1.1	0.36	1.14	
1,1-Dichloroethene	ND	1.1	0.39	1.14	
c-1,2-Dichloroethene	ND	1.1	0.32	1.14	
t-1,2-Dichloroethene	ND	1.1	0.58	1.14	
1,2-Dichloropropane	ND	1.1	0.50	1.14	
1,3-Dichloropropane	ND	1.1	0.29	1.14	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.7	0.38	1.14	
1,1-Dichloropropene	ND	2.3	0.37	1.14	
c-1,3-Dichloropropene	ND	1.1	0.29	1.14	
t-1,3-Dichloropropene	ND	2.3	0.69	1.14	
Ethylbenzene	1.9	1.1	0.17	1.14	
2-Hexanone	ND	23	2.0	1.14	
Isopropylbenzene	ND	1.1	0.62	1.14	
p-Isopropyltoluene	ND	1.1	0.72	1.14	
Methylene Chloride	ND	11	1.5	1.14	
4-Methyl-2-Pentanone	ND	23	4.9	1.14	
Naphthalene	ND	11	0.93	1.14	
n-Propylbenzene	ND	2.3	0.57	1.14	
Styrene	ND	1.1	0.69	1.14	
1,1,1,2-Tetrachloroethane	ND	1.1	0.27	1.14	
1,1,2,2-Tetrachloroethane	ND	2.3	0.39	1.14	
Tetrachloroethene	ND	1.1	0.24	1.14	
Toluene	3.0	1.1	0.59	1.14	
1,2,3-Trichlorobenzene	ND	2.3	1.0	1.14	
1,2,4-Trichlorobenzene	ND	2.3	0.35	1.14	
1,1,1-Trichloroethane	ND	1.1	0.26	1.14	
1,1,2-Trichloroethane	ND	1.1	1.1	1.14	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.40	1.14	
Trichloroethene	ND	2.3	0.34	1.14	
Trichlorofluoromethane	ND	11	0.43	1.14	
1,2,3-Trichloropropane	ND	2.3	0.78	1.14	
1,2,4-Trimethylbenzene	ND	2.3	0.67	1.14	
1,3,5-Trimethylbenzene	ND	2.3	0.63	1.14	
Vinyl Acetate	ND	11	5.4	1.14	
Vinyl Chloride	ND	1.1	0.57	1.14	
p/m-Xylene	1.0	2.3	0.31	1.14	J
o-Xylene	ND	1.1	0.63	1.14	
Methyl-t-Butyl Ether (MTBE)	ND	2.3	0.34	1.14	
Tert-Butyl Alcohol (TBA)	ND	23	5.9	1.14	
Diisopropyl Ether (DIPE)	ND	1.1	0.55	1.14	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.58	1.14	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.40	1.14	
Ethanol	ND	570	95	1.14	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 39 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-03-30	**13-06-1682-18-F**	**06/25/13 14:00**	**Soil**	**GC/MS BB**	**06/25/13**	**06/27/13 00:25**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	8.8	44	5.5	0.879	J
Benzene	1.1	0.88	0.11	0.879	
Bromobenzene	ND	0.88	0.18	0.879	
Bromochloromethane	ND	1.8	0.61	0.879	
Bromodichloromethane	ND	0.88	0.20	0.879	
Bromoform	ND	4.4	0.70	0.879	
Bromomethane	ND	18	8.3	0.879	
2-Butanone	3.9	18	3.3	0.879	J
n-Butylbenzene	ND	0.88	0.14	0.879	
sec-Butylbenzene	ND	0.88	0.51	0.879	
tert-Butylbenzene	ND	0.88	0.13	0.879	
Carbon Disulfide	0.34	8.8	0.27	0.879	J
Carbon Tetrachloride	ND	0.88	0.25	0.879	
Chlorobenzene	ND	0.88	0.20	0.879	
Chloroethane	ND	1.8	1.7	0.879	
Chloroform	ND	0.88	0.21	0.879	
Chloromethane	ND	18	0.60	0.879	
2-Chlorotoluene	ND	0.88	0.20	0.879	
4-Chlorotoluene	ND	0.88	0.19	0.879	
Dibromochloromethane	ND	1.8	0.50	0.879	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	0.879	
1,2-Dibromoethane	ND	0.88	0.22	0.879	
Dibromomethane	ND	0.88	0.68	0.879	
1,2-Dichlorobenzene	ND	0.88	0.20	0.879	
1,3-Dichlorobenzene	ND	0.88	0.15	0.879	
1,4-Dichlorobenzene	ND	0.88	0.20	0.879	
Dichlorodifluoromethane	ND	1.8	0.39	0.879	
1,1-Dichloroethane	ND	0.88	0.88	0.879	
1,2-Dichloroethane	ND	0.88	0.28	0.879	
1,1-Dichloroethene	ND	0.88	0.30	0.879	
c-1,2-Dichloroethene	ND	0.88	0.25	0.879	
t-1,2-Dichloroethene	ND	0.88	0.44	0.879	
1,2-Dichloropropane	ND	0.88	0.39	0.879	
1,3-Dichloropropane	ND	0.88	0.22	0.879	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	0.879	
1,1-Dichloropropene	ND	1.8	0.29	0.879	
c-1,3-Dichloropropene	ND	0.88	0.22	0.879	
t-1,3-Dichloropropene	ND	1.8	0.53	0.879	
Ethylbenzene	0.50	0.88	0.13	0.879	J
2-Hexanone	ND	18	1.5	0.879	
Isopropylbenzene	ND	0.88	0.48	0.879	
p-Isopropyltoluene	ND	0.88	0.55	0.879	
Methylene Chloride	ND	8.8	1.2	0.879	
4-Methyl-2-Pentanone	ND	18	3.8	0.879	
Naphthalene	ND	8.8	0.72	0.879	
n-Propylbenzene	ND	1.8	0.44	0.879	
Styrene	ND	0.88	0.53	0.879	
1,1,1,2-Tetrachloroethane	ND	0.88	0.21	0.879	
1,1,2,2-Tetrachloroethane	ND	1.8	0.30	0.879	
Tetrachloroethene	ND	0.88	0.18	0.879	
Toluene	1.1	0.88	0.45	0.879	
1,2,3-Trichlorobenzene	ND	1.8	0.80	0.879	
1,2,4-Trichlorobenzene	ND	1.8	0.27	0.879	
1,1,1-Trichloroethane	ND	0.88	0.20	0.879	
1,1,2-Trichloroethane	ND	0.88	0.84	0.879	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	0.31	0.879	
Trichloroethene	ND	1.8	0.26	0.879	
Trichlorofluoromethane	ND	8.8	0.33	0.879	
1,2,3-Trichloropropane	ND	1.8	0.60	0.879	
1,2,4-Trimethylbenzene	ND	1.8	0.52	0.879	
1,3,5-Trimethylbenzene	ND	1.8	0.48	0.879	
Vinyl Acetate	ND	8.8	4.2	0.879	
Vinyl Chloride	ND	0.88	0.44	0.879	
p/m-Xylene	0.60	1.8	0.24	0.879	J
o-Xylene	ND	0.88	0.49	0.879	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.879	
Tert-Butyl Alcohol (TBA)	4.6	18	4.5	0.879	J
Diisopropyl Ether (DIPE)	ND	0.88	0.42	0.879	
Ethyl-t-Butyl Ether (ETBE)	ND	0.88	0.44	0.879	
Tert-Amyl-Methyl Ether (TAME)	ND	0.88	0.31	0.879	
Ethanol	ND	440	73	0.879	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 42 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBV-04-20DUP	**13-06-1682-23-C**	**06/25/13 12:05**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 20:35**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	14	45	5.6	0.891	J
Benzene	0.54	0.89	0.12	0.891	J
Bromobenzene	ND	0.89	0.19	0.891	
Bromochloromethane	ND	1.8	0.62	0.891	
Bromodichloromethane	ND	0.89	0.21	0.891	
Bromoform	ND	4.5	0.71	0.891	
Bromomethane	ND	18	8.4	0.891	
2-Butanone	3.6	18	3.4	0.891	J
n-Butylbenzene	ND	0.89	0.14	0.891	
sec-Butylbenzene	ND	0.89	0.51	0.891	
tert-Butylbenzene	ND	0.89	0.13	0.891	
Carbon Disulfide	ND	8.9	0.27	0.891	
Carbon Tetrachloride	ND	0.89	0.25	0.891	
Chlorobenzene	ND	0.89	0.20	0.891	
Chloroethane	ND	1.8	1.7	0.891	
Chloroform	ND	0.89	0.21	0.891	
Chloromethane	ND	18	0.61	0.891	
2-Chlorotoluene	ND	0.89	0.21	0.891	
4-Chlorotoluene	ND	0.89	0.19	0.891	
Dibromochloromethane	ND	1.8	0.51	0.891	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.5	0.891	
1,2-Dibromoethane	ND	0.89	0.23	0.891	
Dibromomethane	ND	0.89	0.69	0.891	
1,2-Dichlorobenzene	ND	0.89	0.20	0.891	
1,3-Dichlorobenzene	ND	0.89	0.16	0.891	
1,4-Dichlorobenzene	ND	0.89	0.20	0.891	
Dichlorodifluoromethane	ND	1.8	0.40	0.891	
1,1-Dichloroethane	ND	0.89	0.89	0.891	
1,2-Dichloroethane	ND	0.89	0.28	0.891	
1,1-Dichloroethene	ND	0.89	0.31	0.891	
c-1,2-Dichloroethene	ND	0.89	0.25	0.891	
t-1,2-Dichloroethene	ND	0.89	0.45	0.891	
1,2-Dichloropropane	ND	0.89	0.39	0.891	
1,3-Dichloropropane	ND	0.89	0.23	0.891	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.5	0.29	0.891	
1,1-Dichloropropene	ND	1.8	0.29	0.891	
c-1,3-Dichloropropene	ND	0.89	0.23	0.891	
t-1,3-Dichloropropene	ND	1.8	0.54	0.891	
Ethylbenzene	ND	0.89	0.14	0.891	
2-Hexanone	ND	18	1.6	0.891	
Isopropylbenzene	ND	0.89	0.49	0.891	
p-Isopropyltoluene	ND	0.89	0.56	0.891	
Methylene Chloride	ND	8.9	1.2	0.891	
4-Methyl-2-Pentanone	ND	18	3.8	0.891	
Naphthalene	ND	8.9	0.73	0.891	
n-Propylbenzene	ND	1.8	0.45	0.891	
Styrene	ND	0.89	0.54	0.891	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	0.891	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	0.891	
Tetrachloroethene	ND	0.89	0.19	0.891	
Toluene	ND	0.89	0.46	0.891	
1,2,3-Trichlorobenzene	ND	1.8	0.81	0.891	
1,2,4-Trichlorobenzene	ND	1.8	0.28	0.891	
1,1,1-Trichloroethane	ND	0.89	0.20	0.891	
1,1,2-Trichloroethane	ND	0.89	0.85	0.891	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	0.891	
Trichloroethene	ND	1.8	0.27	0.891	
Trichlorofluoromethane	ND	8.9	0.33	0.891	
1,2,3-Trichloropropane	ND	1.8	0.61	0.891	
1,2,4-Trimethylbenzene	ND	1.8	0.52	0.891	
1,3,5-Trimethylbenzene	ND	1.8	0.49	0.891	
Vinyl Acetate	ND	8.9	4.2	0.891	
Vinyl Chloride	ND	0.89	0.45	0.891	
p/m-Xylene	ND	1.8	0.24	0.891	
o-Xylene	ND	0.89	0.50	0.891	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	0.891	
Tert-Butyl Alcohol (TBA)	ND	18	4.6	0.891	
Diisopropyl Ether (DIPE)	ND	0.89	0.43	0.891	
Ethyl-t-Butyl Ether (ETBE)	ND	0.89	0.45	0.891	
Tert-Amyl-Methyl Ether (TAME)	ND	0.89	0.31	0.891	
Ethanol	ND	450	74	0.891	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 45 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-60	**13-06-1682-24-F**	**06/24/13 16:23**	**Soil**	**GC/MS PP**	**06/24/13**	**06/27/13 17:44**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	28	49	6.1	0.982	J
Benzene	1.8	0.98	0.13	0.982	
Bromobenzene	ND	0.98	0.21	0.982	
Bromochloromethane	ND	2.0	0.68	0.982	
Bromodichloromethane	ND	0.98	0.23	0.982	
Bromoform	ND	4.9	0.78	0.982	
Bromomethane	ND	20	9.3	0.982	
2-Butanone	4.5	20	3.7	0.982	J
n-Butylbenzene	ND	0.98	0.15	0.982	
sec-Butylbenzene	ND	0.98	0.57	0.982	
tert-Butylbenzene	ND	0.98	0.15	0.982	
Carbon Disulfide	ND	9.8	0.30	0.982	
Carbon Tetrachloride	ND	0.98	0.28	0.982	
Chlorobenzene	ND	0.98	0.22	0.982	
Chloroethane	ND	2.0	1.8	0.982	
Chloroform	ND	0.98	0.23	0.982	
Chloromethane	ND	20	0.68	0.982	
2-Chlorotoluene	ND	0.98	0.23	0.982	
4-Chlorotoluene	ND	0.98	0.21	0.982	
Dibromochloromethane	ND	2.0	0.56	0.982	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.982	
1,2-Dibromoethane	ND	0.98	0.25	0.982	
Dibromomethane	ND	0.98	0.76	0.982	
1,2-Dichlorobenzene	ND	0.98	0.22	0.982	
1,3-Dichlorobenzene	ND	0.98	0.17	0.982	
1,4-Dichlorobenzene	ND	0.98	0.22	0.982	
Dichlorodifluoromethane	ND	2.0	0.44	0.982	
1,1-Dichloroethane	ND	0.98	0.98	0.982	
1,2-Dichloroethane	ND	0.98	0.31	0.982	
1,1-Dichloroethene	ND	0.98	0.34	0.982	
c-1,2-Dichloroethene	ND	0.98	0.27	0.982	
t-1,2-Dichloroethene	ND	0.98	0.50	0.982	
1,2-Dichloropropane	ND	0.98	0.43	0.982	
1,3-Dichloropropane	ND	0.98	0.25	0.982	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.982	
1,1-Dichloropropene	ND	2.0	0.32	0.982	
c-1,3-Dichloropropene	ND	0.98	0.25	0.982	
t-1,3-Dichloropropene	ND	2.0	0.59	0.982	
Ethylbenzene	1.6	0.98	0.15	0.982	
2-Hexanone	ND	20	1.7	0.982	
Isopropylbenzene	ND	0.98	0.54	0.982	
p-Isopropyltoluene	ND	0.98	0.62	0.982	
Methylene Chloride	ND	9.8	1.3	0.982	
4-Methyl-2-Pentanone	ND	20	4.2	0.982	
Naphthalene	ND	9.8	0.80	0.982	
n-Propylbenzene	ND	2.0	0.49	0.982	
Styrene	ND	0.98	0.59	0.982	
1,1,1,2-Tetrachloroethane	ND	0.98	0.24	0.982	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.982	
Tetrachloroethene	ND	0.98	0.21	0.982	
Toluene	2.2	0.98	0.51	0.982	
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.982	
1,2,4-Trichlorobenzene	ND	2.0	0.30	0.982	
1,1,1-Trichloroethane	ND	0.98	0.22	0.982	
1,1,2-Trichloroethane	ND	0.98	0.93	0.982	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.8	0.35	0.982	
Trichloroethene	ND	2.0	0.30	0.982	
Trichlorofluoromethane	ND	9.8	0.37	0.982	
1,2,3-Trichloropropane	ND	2.0	0.67	0.982	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.982	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.982	
Vinyl Acetate	ND	9.8	4.7	0.982	
Vinyl Chloride	ND	0.98	0.49	0.982	
p/m-Xylene	0.78	2.0	0.26	0.982	J
o-Xylene	ND	0.98	0.55	0.982	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.982	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.982	
Diisopropyl Ether (DIPE)	ND	0.98	0.47	0.982	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	0.50	0.982	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	0.35	0.982	
Ethanol	ND	490	82	0.982	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 48 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	132	71-155	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-70	**13-06-1682-25-E**	**06/25/13 07:54**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 21:32**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	11	40	5.0	0.795	J
Benzene	0.27	0.80	0.10	0.795	J
Bromobenzene	ND	0.80	0.17	0.795	
Bromochloromethane	ND	1.6	0.55	0.795	
Bromodichloromethane	ND	0.80	0.19	0.795	
Bromoform	ND	4.0	0.63	0.795	
Bromomethane	ND	16	7.5	0.795	
2-Butanone	ND	16	3.0	0.795	
n-Butylbenzene	ND	0.80	0.12	0.795	
sec-Butylbenzene	ND	0.80	0.46	0.795	
tert-Butylbenzene	ND	0.80	0.12	0.795	
Carbon Disulfide	ND	8.0	0.24	0.795	
Carbon Tetrachloride	ND	0.80	0.22	0.795	
Chlorobenzene	ND	0.80	0.18	0.795	
Chloroethane	ND	1.6	1.5	0.795	
Chloroform	ND	0.80	0.19	0.795	
Chloromethane	ND	16	0.55	0.795	
2-Chlorotoluene	ND	0.80	0.18	0.795	
4-Chlorotoluene	ND	0.80	0.17	0.795	
Dibromochloromethane	ND	1.6	0.45	0.795	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.795	
1,2-Dibromoethane	ND	0.80	0.20	0.795	
Dibromomethane	ND	0.80	0.62	0.795	
1,2-Dichlorobenzene	ND	0.80	0.18	0.795	
1,3-Dichlorobenzene	ND	0.80	0.14	0.795	
1,4-Dichlorobenzene	ND	0.80	0.18	0.795	
Dichlorodifluoromethane	ND	1.6	0.35	0.795	
1,1-Dichloroethane	ND	0.80	0.79	0.795	
1,2-Dichloroethane	ND	0.80	0.25	0.795	
1,1-Dichloroethene	ND	0.80	0.28	0.795	
c-1,2-Dichloroethene	ND	0.80	0.22	0.795	
t-1,2-Dichloroethene	ND	0.80	0.40	0.795	
1,2-Dichloropropane	ND	0.80	0.35	0.795	
1,3-Dichloropropane	ND	0.80	0.20	0.795	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.795	
1,1-Dichloropropene	ND	1.6	0.26	0.795	
c-1,3-Dichloropropene	ND	0.80	0.20	0.795	
t-1,3-Dichloropropene	ND	1.6	0.48	0.795	
Ethylbenzene	ND	0.80	0.12	0.795	
2-Hexanone	ND	16	1.4	0.795	
Isopropylbenzene	ND	0.80	0.43	0.795	
p-Isopropyltoluene	ND	0.80	0.50	0.795	
Methylene Chloride	ND	8.0	1.1	0.795	
4-Methyl-2-Pentanone	ND	16	3.4	0.795	
Naphthalene	ND	8.0	0.65	0.795	
n-Propylbenzene	ND	1.6	0.40	0.795	
Styrene	ND	0.80	0.48	0.795	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	0.795	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.795	
Tetrachloroethene	ND	0.80	0.17	0.795	
Toluene	ND	0.80	0.41	0.795	
1,2,3-Trichlorobenzene	ND	1.6	0.73	0.795	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.795	
1,1,1-Trichloroethane	ND	0.80	0.18	0.795	
1,1,2-Trichloroethane	ND	0.80	0.76	0.795	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	0.795	
Trichloroethene	ND	1.6	0.24	0.795	
Trichlorofluoromethane	ND	8.0	0.30	0.795	
1,2,3-Trichloropropane	ND	1.6	0.54	0.795	
1,2,4-Trimethylbenzene	ND	1.6	0.47	0.795	
1,3,5-Trimethylbenzene	ND	1.6	0.44	0.795	
Vinyl Acetate	ND	8.0	3.8	0.795	
Vinyl Chloride	ND	0.80	0.40	0.795	
p/m-Xylene	ND	1.6	0.21	0.795	
o-Xylene	ND	0.80	0.44	0.795	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.795	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.795	
Diisopropyl Ether (DIPE)	ND	0.80	0.38	0.795	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	0.40	0.795	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	0.28	0.795	
Ethanol	ND	400	66	0.795	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 51 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-70	**13-06-1682-26-E**	**06/25/13 07:54**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 22:01**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	11	40	4.9	0.792	J
Benzene	0.17	0.79	0.10	0.792	J
Bromobenzene	ND	0.79	0.17	0.792	
Bromochloromethane	ND	1.6	0.55	0.792	
Bromodichloromethane	ND	0.79	0.18	0.792	
Bromoform	ND	4.0	0.63	0.792	
Bromomethane	ND	16	7.5	0.792	
2-Butanone	3.3	16	3.0	0.792	J
n-Butylbenzene	ND	0.79	0.12	0.792	
sec-Butylbenzene	ND	0.79	0.46	0.792	
tert-Butylbenzene	ND	0.79	0.12	0.792	
Carbon Disulfide	ND	7.9	0.24	0.792	
Carbon Tetrachloride	ND	0.79	0.22	0.792	
Chlorobenzene	ND	0.79	0.18	0.792	
Chloroethane	ND	1.6	1.5	0.792	
Chloroform	ND	0.79	0.19	0.792	
Chloromethane	ND	16	0.54	0.792	
2-Chlorotoluene	ND	0.79	0.18	0.792	
4-Chlorotoluene	ND	0.79	0.17	0.792	
Dibromochloromethane	ND	1.6	0.45	0.792	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.792	
1,2-Dibromoethane	ND	0.79	0.20	0.792	
Dibromomethane	ND	0.79	0.61	0.792	
1,2-Dichlorobenzene	ND	0.79	0.18	0.792	
1,3-Dichlorobenzene	ND	0.79	0.14	0.792	
1,4-Dichlorobenzene	ND	0.79	0.18	0.792	
Dichlorodifluoromethane	ND	1.6	0.35	0.792	
1,1-Dichloroethane	ND	0.79	0.79	0.792	
1,2-Dichloroethane	ND	0.79	0.25	0.792	
1,1-Dichloroethene	ND	0.79	0.27	0.792	
c-1,2-Dichloroethene	ND	0.79	0.22	0.792	
t-1,2-Dichloroethene	ND	0.79	0.40	0.792	
1,2-Dichloropropane	ND	0.79	0.35	0.792	
1,3-Dichloropropane	ND	0.79	0.20	0.792	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.792	
1,1-Dichloropropene	ND	1.6	0.26	0.792	
c-1,3-Dichloropropene	ND	0.79	0.20	0.792	
t-1,3-Dichloropropene	ND	1.6	0.48	0.792	
Ethylbenzene	ND	0.79	0.12	0.792	
2-Hexanone	ND	16	1.4	0.792	
Isopropylbenzene	ND	0.79	0.43	0.792	
p-Isopropyltoluene	ND	0.79	0.50	0.792	
Methylene Chloride	ND	7.9	1.1	0.792	
4-Methyl-2-Pentanone	ND	16	3.4	0.792	
Naphthalene	ND	7.9	0.64	0.792	
n-Propylbenzene	ND	1.6	0.40	0.792	
Styrene	ND	0.79	0.48	0.792	
1,1,1,2-Tetrachloroethane	ND	0.79	0.19	0.792	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	0.792	
Tetrachloroethene	ND	0.79	0.17	0.792	
Toluene	ND	0.79	0.41	0.792	
1,2,3-Trichlorobenzene	ND	1.6	0.72	0.792	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.792	
1,1,1-Trichloroethane	ND	0.79	0.18	0.792	
1,1,2-Trichloroethane	ND	0.79	0.75	0.792	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.9	0.28	0.792	
Trichloroethene	ND	1.6	0.24	0.792	
Trichlorofluoromethane	ND	7.9	0.30	0.792	
1,2,3-Trichloropropane	ND	1.6	0.54	0.792	
1,2,4-Trimethylbenzene	ND	1.6	0.46	0.792	
1,3,5-Trimethylbenzene	ND	1.6	0.43	0.792	
Vinyl Acetate	ND	7.9	3.8	0.792	
Vinyl Chloride	ND	0.79	0.40	0.792	
p/m-Xylene	ND	1.6	0.21	0.792	
o-Xylene	ND	0.79	0.44	0.792	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	0.792	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.792	
Diisopropyl Ether (DIPE)	ND	0.79	0.38	0.792	
Ethyl-t-Butyl Ether (ETBE)	ND	0.79	0.40	0.792	
Tert-Amyl-Methyl Ether (TAME)	ND	0.79	0.28	0.792	
Ethanol	ND	400	66	0.792	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/25/13
Work Order:	13-06-1682
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 55 of 69

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-100	**13-06-1682-27-E**	**06/25/13 09:10**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 22:30**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	14	50	6.3	1.01	J
Benzene	1.1	1.0	0.13	1.01	
Bromobenzene	ND	1.0	0.21	1.01	
Bromochloromethane	ND	2.0	0.70	1.01	
Bromodichloromethane	ND	1.0	0.24	1.01	
Bromoform	ND	5.0	0.80	1.01	
Bromomethane	ND	20	9.5	1.01	
2-Butanone	3.8	20	3.8	1.01	J
n-Butylbenzene	0.69	1.0	0.16	1.01	J
sec-Butylbenzene	ND	1.0	0.58	1.01	
tert-Butylbenzene	ND	1.0	0.15	1.01	
Carbon Disulfide	ND	10	0.31	1.01	
Carbon Tetrachloride	ND	1.0	0.29	1.01	
Chlorobenzene	ND	1.0	0.23	1.01	
Chloroethane	ND	2.0	1.9	1.01	
Chloroform	ND	1.0	0.24	1.01	
Chloromethane	ND	20	0.69	1.01	
2-Chlorotoluene	ND	1.0	0.23	1.01	
4-Chlorotoluene	ND	1.0	0.22	1.01	
Dibromochloromethane	ND	2.0	0.58	1.01	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.8	1.01	
1,2-Dibromoethane	ND	1.0	0.26	1.01	
Dibromomethane	ND	1.0	0.78	1.01	
1,2-Dichlorobenzene	ND	1.0	0.23	1.01	
1,3-Dichlorobenzene	ND	1.0	0.18	1.01	
1,4-Dichlorobenzene	ND	1.0	0.22	1.01	
Dichlorodifluoromethane	ND	2.0	0.45	1.01	
1,1-Dichloroethane	ND	1.0	1.0	1.01	
1,2-Dichloroethane	ND	1.0	0.32	1.01	
1,1-Dichloroethene	ND	1.0	0.35	1.01	
c-1,2-Dichloroethene	ND	1.0	0.28	1.01	
t-1,2-Dichloroethene	ND	1.0	0.51	1.01	
1,2-Dichloropropane	ND	1.0	0.44	1.01	
1,3-Dichloropropane	ND	1.0	0.26	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1.01	
1,1-Dichloropropene	ND	2.0	0.33	1.01	
c-1,3-Dichloropropene	ND	1.0	0.26	1.01	
t-1,3-Dichloropropene	ND	2.0	0.61	1.01	
Ethylbenzene	8.0	1.0	0.15	1.01	
2-Hexanone	ND	20	1.8	1.01	
Isopropylbenzene	ND	1.0	0.55	1.01	
p-Isopropyltoluene	ND	1.0	0.64	1.01	
Methylene Chloride	ND	10	1.4	1.01	
4-Methyl-2-Pentanone	ND	20	4.4	1.01	
Naphthalene	ND	10	0.82	1.01	
n-Propylbenzene	1.3	2.0	0.51	1.01	J
Styrene	ND	1.0	0.61	1.01	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.01	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.01	
Tetrachloroethene	ND	1.0	0.21	1.01	
Toluene	7.1	1.0	0.52	1.01	
1,2,3-Trichlorobenzene	ND	2.0	0.92	1.01	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.01	
1,1,1-Trichloroethane	ND	1.0	0.23	1.01	
1,1,2-Trichloroethane	ND	1.0	0.96	1.01	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.01	
Trichloroethene	ND	2.0	0.30	1.01	
Trichlorofluoromethane	ND	10	0.38	1.01	
1,2,3-Trichloropropane	ND	2.0	0.69	1.01	
1,2,4-Trimethylbenzene	1.8	2.0	0.59	1.01	J
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.01	
Vinyl Acetate	ND	10	4.8	1.01	
Vinyl Chloride	ND	1.0	0.51	1.01	
p/m-Xylene	2.3	2.0	0.27	1.01	
o-Xylene	0.95	1.0	0.56	1.01	J
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.01	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1.01	
Diisopropyl Ether (DIPE)	ND	1.0	0.49	1.01	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1.01	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.36	1.01	
Ethanol	ND	500	84	1.01	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 57 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-110	**13-06-1682-28-E**	**06/25/13 09:56**	**Soil**	**GC/MS BB**	**06/25/13**	**06/26/13 22:59**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	17	40	5.0	0.797	J
Benzene	0.50	0.80	0.10	0.797	J
Bromobenzene	ND	0.80	0.17	0.797	
Bromochloromethane	ND	1.6	0.55	0.797	
Bromodichloromethane	ND	0.80	0.19	0.797	
Bromoform	ND	4.0	0.63	0.797	
Bromomethane	ND	16	7.5	0.797	
2-Butanone	6.1	16	3.0	0.797	J
n-Butylbenzene	0.19	0.80	0.12	0.797	J
sec-Butylbenzene	ND	0.80	0.46	0.797	
tert-Butylbenzene	ND	0.80	0.12	0.797	
Carbon Disulfide	ND	8.0	0.24	0.797	
Carbon Tetrachloride	ND	0.80	0.23	0.797	
Chlorobenzene	ND	0.80	0.18	0.797	
Chloroethane	ND	1.6	1.5	0.797	
Chloroform	ND	0.80	0.19	0.797	
Chloromethane	ND	16	0.55	0.797	
2-Chlorotoluene	ND	0.80	0.18	0.797	
4-Chlorotoluene	ND	0.80	0.17	0.797	
Dibromochloromethane	ND	1.6	0.45	0.797	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	0.797	
1,2-Dibromoethane	ND	0.80	0.20	0.797	
Dibromomethane	ND	0.80	0.62	0.797	
1,2-Dichlorobenzene	ND	0.80	0.18	0.797	
1,3-Dichlorobenzene	ND	0.80	0.14	0.797	
1,4-Dichlorobenzene	ND	0.80	0.18	0.797	
Dichlorodifluoromethane	ND	1.6	0.35	0.797	
1,1-Dichloroethane	ND	0.80	0.80	0.797	
1,2-Dichloroethane	ND	0.80	0.25	0.797	
1,1-Dichloroethene	ND	0.80	0.28	0.797	
c-1,2-Dichloroethene	ND	0.80	0.22	0.797	
t-1,2-Dichloroethene	ND	0.80	0.40	0.797	
1,2-Dichloropropane	ND	0.80	0.35	0.797	
1,3-Dichloropropane	ND	0.80	0.20	0.797	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	0.797	
1,1-Dichloropropene	ND	1.6	0.26	0.797	
c-1,3-Dichloropropene	ND	0.80	0.20	0.797	
t-1,3-Dichloropropene	ND	1.6	0.48	0.797	
Ethylbenzene	1.6	0.80	0.12	0.797	
2-Hexanone	ND	16	1.4	0.797	
Isopropylbenzene	ND	0.80	0.44	0.797	
p-Isopropyltoluene	ND	0.80	0.50	0.797	
Methylene Chloride	ND	8.0	1.1	0.797	
4-Methyl-2-Pentanone	ND	16	3.4	0.797	
Naphthalene	ND	8.0	0.65	0.797	
n-Propylbenzene	ND	1.6	0.40	0.797	
Styrene	ND	0.80	0.48	0.797	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	0.797	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	0.797	
Tetrachloroethene	ND	0.80	0.17	0.797	
Toluene	1.5	0.80	0.41	0.797	
1,2,3-Trichlorobenzene	ND	1.6	0.73	0.797	
1,2,4-Trichlorobenzene	ND	1.6	0.25	0.797	
1,1,1-Trichloroethane	ND	0.80	0.18	0.797	
1,1,2-Trichloroethane	ND	0.80	0.76	0.797	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	0.797	
Trichloroethene	ND	1.6	0.24	0.797	
Trichlorofluoromethane	ND	8.0	0.30	0.797	
1,2,3-Trichloropropane	ND	1.6	0.55	0.797	
1,2,4-Trimethylbenzene	ND	1.6	0.47	0.797	
1,3,5-Trimethylbenzene	ND	1.6	0.44	0.797	
Vinyl Acetate	ND	8.0	3.8	0.797	
Vinyl Chloride	ND	0.80	0.40	0.797	
p/m-Xylene	0.43	1.6	0.21	0.797	J
o-Xylene	ND	0.80	0.44	0.797	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	0.797	
Tert-Butyl Alcohol (TBA)	ND	16	4.1	0.797	
Diisopropyl Ether (DIPE)	ND	0.80	0.38	0.797	
Ethyl-t-Butyl Ether (ETBE)	ND	0.80	0.40	0.797	
Tert-Amyl-Methyl Ether (TAME)	ND	0.80	0.28	0.797	
Ethanol	ND	400	67	0.797	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 60 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-260**	**N/A**	**Soil**	**GC/MS BB**	**06/26/13**	**06/26/13 16:37**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767-02		Page 63 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-259**	**N/A**	**Soil**	**GC/MS PP**	**06/26/13**	**06/26/13 17:41**	**130626L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received:	06/25/13
Work Order:	13-06-1682
Preparation:	EPA 5035
Method:	EPA 8260B
Units:	ug/kg

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	97	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-262**	**N/A**	**Soil**	**GC/MS PP**	**06/27/13**	**06/27/13 16:51**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767-02			Page 69 of 69

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBG-2-60	**Soil**	**GC 46**	**06/26/13**	**06/26/13 17:25**	**130626S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	403.2	101	414.6	104	64-130	3	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3550B
Method: EPA 8015B (M)
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBG-2-60	**Soil**	**GC 46**	**06/26/13**	**06/26/13 16:36**	**130626S03**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	377.6	94	381.2	95	64-130	1	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-03-05	**Soil**	**ICP 7300**	**06/26/13**	**06/27/13 15:41**	**130626S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.501	18	4.181	17	50-115	7	0-20	3
Arsenic	5.246	25.00	28.16	92	27.81	90	75-125	1	0-20	
Barium	117.6	25.00	146.9	4X	142.2	4X	75-125	4X	0-20	Q
Beryllium	0.4318	25.00	25.59	101	25.21	99	75-125	1	0-20	
Cadmium	2.102	25.00	26.06	96	25.58	94	75-125	2	0-20	
Chromium	20.47	25.00	45.97	102	44.03	94	75-125	4	0-20	
Cobalt	8.524	25.00	33.54	100	33.24	99	75-125	1	0-20	
Copper	19.20	25.00	46.40	109	45.14	104	75-125	3	0-20	
Lead	3.987	25.00	27.64	95	27.48	94	75-125	1	0-20	
Molybdenum	3.741	25.00	25.72	88	25.93	89	75-125	1	0-20	
Nickel	27.56	25.00	53.80	105	52.01	98	75-125	3	0-20	
Selenium	ND	25.00	21.27	85	20.84	83	75-125	2	0-20	
Silver	ND	12.50	13.02	104	12.88	103	75-125	1	0-20	
Thallium	ND	25.00	23.40	94	22.89	92	75-125	2	0-20	
Vanadium	44.79	25.00	71.03	105	68.17	94	75-125	4	0-20	
Zinc	51.77	25.00	77.32	102	75.05	93	75-125	3	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SV-03-02	**Soil**	**Mercury**	**06/26/13**	**06/26/13 17:27**	**130626S07**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7350	88	0.7461	89	71-137	2	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1334-7	**Soil**	**GC 58**	**06/26/13**	**06/28/13 02:50**	**130626S04**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	124.7	125	100.6	101	50-135	21	0-20	4
Aroclor-1260	ND	100.0	124.6	125	112.5	112	50-135	10	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SBV-05-09	**Soil**	**GC/MS EEE**	**06/26/13**	**06/30/13 05:56**	**130626S16**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Naphthalene	ND	0.2000	0.2434	122	0.2250	113	15-171	8	0-44	
2-Methylnaphthalene	ND	0.2000	0.2350	118	0.2226	111	28-160	5	0-39	
1-Methylnaphthalene	ND	0.2000	0.2237	112	0.2111	106	28-154	6	0-40	
Acenaphthylene	ND	0.2000	0.2055	103	0.1972	99	27-153	4	0-41	
Acenaphthene	ND	0.2000	0.2200	110	0.2111	106	33-147	4	0-38	
Fluorene	ND	0.2000	0.2139	107	0.2042	102	12-180	5	0-33	
Phenanthrene	ND	0.2000	0.1871	94	0.1778	89	26-152	5	0-29	
Anthracene	ND	0.2000	0.1877	94	0.1773	89	10-145	6	0-25	
Fluoranthene	ND	0.2000	0.1848	92	0.1745	87	20-158	6	0-31	
Pyrene	ND	0.2000	0.1894	95	0.1768	88	11-191	7	0-31	
Benzo (a) Anthracene	ND	0.2000	0.1927	96	0.1795	90	36-150	7	0-32	
Chrysene	ND	0.2000	0.1933	97	0.1810	90	21-189	7	0-29	
Benzo (k) Fluoranthene	ND	0.2000	0.2180	109	0.2101	105	40-148	4	0-32	
Benzo (b) Fluoranthene	ND	0.2000	0.1961	98	0.1839	92	39-147	6	0-28	
Benzo (a) Pyrene	ND	0.2000	0.2095	105	0.1919	96	36-168	9	0-26	
Indeno (1,2,3-c,d) Pyrene	ND	0.2000	0.1968	98	0.1831	92	22-160	7	0-26	
Dibenz (a,h) Anthracene	ND	0.2000	0.1611	81	0.1477	74	27-147	9	0-30	
Benzo (g,h,i) Perylene	ND	0.2000	0.1665	83	0.1532	77	10-152	8	0-28	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - PDS/PDSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
SV-03-05	**Soil**	**ICP 7300**	**06/26/13 00:00**	**06/27/13 15:43**	**130626S05**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	23.58	94	23.17	93	75-125	2	0-20	
Arsenic	5.246	25.00	27.66	90	28.68	94	75-125	4	0-20	
Barium	117.6	25.00	140.9	4X	142.5	4X	75-125	4X	0-20	Q
Beryllium	0.4318	25.00	24.53	96	24.72	97	75-125	1	0-20	
Cadmium	2.102	25.00	24.91	91	25.09	92	75-125	1	0-20	
Chromium	20.47	25.00	43.65	93	44.07	94	75-125	1	0-20	
Cobalt	8.524	25.00	33.02	98	32.76	97	75-125	1	0-20	
Copper	19.20	25.00	44.64	102	44.51	101	75-125	0	0-20	
Lead	3.987	25.00	27.27	93	27.07	92	75-125	1	0-20	
Molybdenum	3.741	25.00	27.96	97	27.70	96	75-125	1	0-20	
Nickel	27.56	25.00	52.58	100	52.00	98	75-125	1	0-20	
Selenium	ND	25.00	21.45	86	21.26	85	75-125	1	0-20	
Silver	ND	12.50	12.08	97	12.35	99	75-125	2	0-20	
Thallium	ND	25.00	22.97	92	21.96	88	75-125	5	0-20	
Vanadium	44.79	25.00	67.63	91	68.26	94	75-125	1	0-20	
Zinc	51.77	25.00	74.74	92	74.63	91	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 1 of 17

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-420-478	**Soil**	**GC 46**	**06/26/13 17:09**	**130626B04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	396.4	99	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1682
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 2 of 17

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-422-560	**Soil**	**GC 46**	**06/26/13 16:20**	**130626B03**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	346.5	87	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 06/25/13
1111 Broadway, FL 6TH	Work Order: 13-06-1682
Oakland, CA 94607-4172	Preparation: EPA 5035
	Method: EPA 8015B (M)
Project: KP Chatsworth / WR1767-02	Page 3 of 17

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4762	**Soil**	**GC 4**	**06/26/13**	**06/27/13 01:18**	**130626B02**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	1.775	89	1.823	91	55-139	3	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8015B (M)
Page 4 of 17

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4764	**Soil**	**GC 4**	**06/27/13**	**06/27/13 16:44**	**130627B01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	1.611	81	1.598	80	55-139	1	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
097-01-002-16977	**Soil**	**ICP 7300**	**06/27/13 15:34**	**130626L05**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.82	99	80-120	73-127	
Arsenic	25.00	24.77	99	80-120	73-127	
Barium	25.00	27.00	108	80-120	73-127	
Beryllium	25.00	25.84	103	80-120	73-127	
Cadmium	25.00	26.06	104	80-120	73-127	
Chromium	25.00	25.75	103	80-120	73-127	
Cobalt	25.00	27.33	109	80-120	73-127	
Copper	25.00	25.18	101	80-120	73-127	
Lead	25.00	24.49	98	80-120	73-127	
Molybdenum	25.00	25.82	103	80-120	73-127	
Nickel	25.00	27.23	109	80-120	73-127	
Selenium	25.00	24.22	97	80-120	73-127	
Silver	12.50	12.67	101	80-120	73-127	
Thallium	25.00	25.32	101	80-120	73-127	
Vanadium	25.00	25.16	101	80-120	73-127	
Zinc	25.00	28.41	114	80-120	73-127	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-04-007-9390	**Soil**	**Mercury**	**06/26/13 16:58**	**130626L07**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Mercury	0.8350	0.8739	105	85-121	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-12-535-2145	**Soil**	**GC 58**	**06/28/13 02:14**	**130626L04**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	102.6	103	50-135	
Aroclor-1260	100.0	97.97	98	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 3545
Method: EPA 8270C SIM PAHs
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Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-06-010-1724	**Soil**	**GC/MS EEE**	**06/30/13 07:42**	**130626L16**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Naphthalene	0.2000	0.2207	110	64-118	55-127	
2-Methylnaphthalene	0.2000	0.2202	110	55-127	43-139	
1-Methylnaphthalene	0.2000	0.2120	106	57-129	45-141	
Acenaphthylene	0.2000	0.2070	103	36-132	20-148	
Acenaphthene	0.2000	0.2217	111	61-121	51-131	
Fluorene	0.2000	0.2258	113	56-128	44-140	
Phenanthrene	0.2000	0.2078	104	56-122	45-133	
Anthracene	0.2000	0.1663	83	11-119	0-137	
Fluoranthene	0.2000	0.2095	105	56-122	45-133	
Pyrene	0.2000	0.2168	108	57-129	45-141	
Benzo (a) Anthracene	0.2000	0.2057	103	49-127	36-140	
Chrysene	0.2000	0.2148	107	60-126	49-137	
Benzo (k) Fluoranthene	0.2000	0.2646	132	54-138	40-152	
Benzo (b) Fluoranthene	0.2000	0.2252	113	46-136	31-151	
Benzo (a) Pyrene	0.2000	0.2132	107	40-148	22-166	
Indeno (1,2,3-c,d) Pyrene	0.2000	0.2231	112	43-163	23-183	
Dibenz (a,h) Anthracene	0.2000	0.1869	93	45-153	27-171	
Benzo (g,h,i) Perylene	0.2000	0.1877	94	38-140	21-157	

Total number of LCS compounds: 18
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-260	**Soil**	**GC/MS BB**	**06/26/13**	**06/26/13 14:36**	**130626L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	49.60	99	52.64	105	80-120	73-127	6	0-20	
Benzene	50.00	44.96	90	44.74	89	80-120	73-127	1	0-20	
Bromobenzene	50.00	45.51	91	45.14	90	80-120	73-127	1	0-20	
Bromochloromethane	50.00	45.94	92	46.02	92	80-120	73-127	0	0-20	
Bromodichloromethane	50.00	49.77	100	49.49	99	80-120	73-127	1	0-20	
Bromoform	50.00	50.37	101	50.75	101	80-120	73-127	1	0-20	
Bromomethane	50.00	51.64	103	52.89	106	80-120	73-127	2	0-20	
2-Butanone	50.00	58.96	118	60.11	120	80-120	73-127	2	0-20	
n-Butylbenzene	50.00	44.60	89	45.57	91	77-123	69-131	2	0-25	
sec-Butylbenzene	50.00	41.42	83	42.08	84	80-120	73-127	2	0-20	
tert-Butylbenzene	50.00	43.51	87	44.10	88	80-120	73-127	1	0-20	
Carbon Disulfide	50.00	49.11	98	51.26	103	80-120	73-127	4	0-20	
Carbon Tetrachloride	50.00	57.98	116	58.43	117	65-137	53-149	1	0-20	
Chlorobenzene	50.00	42.10	84	42.72	85	80-120	73-127	1	0-20	
Chloroethane	50.00	42.32	85	40.27	81	80-120	73-127	5	0-20	
Chloroform	50.00	47.74	95	48.28	97	80-120	73-127	1	0-20	
Chloromethane	50.00	42.24	84	44.36	89	80-120	73-127	5	0-20	
2-Chlorotoluene	50.00	43.25	87	43.50	87	80-120	73-127	1	0-20	
4-Chlorotoluene	50.00	43.13	86	43.16	86	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	49.53	99	49.07	98	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	48.10	96	48.55	97	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	47.85	96	47.30	95	80-120	73-127	1	0-20	
Dibromomethane	50.00	48.82	98	46.08	92	80-120	73-127	6	0-20	
1,2-Dichlorobenzene	50.00	41.86	84	41.84	84	80-120	73-127	0	0-20	
1,3-Dichlorobenzene	50.00	41.71	83	41.87	84	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	50.00	44.67	89	44.73	89	80-120	73-127	0	0-20	
Dichlorodifluoromethane	50.00	47.85	96	45.97	92	80-120	73-127	4	0-20	
1,1-Dichloroethane	50.00	50.60	101	51.19	102	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	49.24	98	49.15	98	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	47.27	95	48.96	98	68-128	58-138	4	0-20	
c-1,2-Dichloroethene	50.00	46.27	93	46.75	93	80-120	73-127	1	0-20	
t-1,2-Dichloroethene	50.00	47.13	94	47.65	95	80-120	73-127	1	0-20	
1,2-Dichloropropane	50.00	46.45	93	46.60	93	79-115	73-121	0	0-25	
1,3-Dichloropropane	50.00	46.71	93	47.51	95	80-120	73-127	2	0-20	
2,2-Dichloropropane	50.00	59.34	119	49.19	98	80-120	73-127	19	0-20	
1,1-Dichloropropene	50.00	49.02	98	49.78	100	80-120	73-127	2	0-20	
c-1,3-Dichloropropene	50.00	51.12	102	50.92	102	80-120	73-127	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	51.49	103	50.61	101	80-120	73-127	2	0-20	
Ethylbenzene	50.00	45.38	91	46.14	92	80-120	73-127	2	0-20	
2-Hexanone	50.00	50.45	101	50.38	101	80-120	73-127	0	0-20	
Isopropylbenzene	50.00	42.17	84	43.02	86	80-120	73-127	2	0-20	
p-Isopropyltoluene	50.00	42.24	84	42.33	85	80-120	73-127	0	0-20	
Methylene Chloride	50.00	44.33	89	45.38	91	80-120	73-127	2	0-20	
4-Methyl-2-Pentanone	50.00	48.91	98	50.50	101	80-120	73-127	3	0-20	
Naphthalene	50.00	46.62	93	48.25	96	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	42.11	84	42.59	85	80-120	73-127	1	0-20	
Styrene	50.00	45.41	91	46.28	93	80-120	73-127	2	0-20	
1,1,1,2-Tetrachloroethane	50.00	47.85	96	48.29	97	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	46.78	94	46.36	93	80-120	73-127	1	0-20	
Tetrachloroethene	50.00	42.17	84	43.12	86	80-120	73-127	2	0-20	
Toluene	50.00	45.26	91	45.87	92	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	43.99	88	45.96	92	80-120	73-127	4	0-20	
1,2,4-Trichlorobenzene	50.00	44.32	89	45.20	90	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	50.00	50.27	101	49.86	100	80-120	73-127	1	0-20	
1,1,2-Trichloroethane	50.00	45.39	91	45.73	91	80-120	73-127	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.73	93	48.49	97	80-120	73-127	4	0-20	
Trichloroethene	50.00	45.80	92	45.52	91	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	49.30	99	48.45	97	80-120	73-127	2	0-20	
1,2,3-Trichloropropane	50.00	46.40	93	46.88	94	80-120	73-127	1	0-20	
1,2,4-Trimethylbenzene	50.00	45.58	91	46.80	94	80-120	73-127	3	0-20	
1,3,5-Trimethylbenzene	50.00	46.40	93	47.52	95	80-120	73-127	2	0-20	
Vinyl Acetate	50.00	54.72	109	54.21	108	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	38.23	76	37.01	74	67-127	57-137	3	0-20	
p/m-Xylene	100.0	87.43	87	88.77	89	80-120	73-127	2	0-20	
o-Xylene	50.00	42.34	85	42.68	85	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	49.65	99	49.35	99	70-124	61-133	1	0-20	
Tert-Butyl Alcohol (TBA)	250.0	216.8	87	208.8	84	73-121	65-129	4	0-20	
Diisopropyl Ether (DIPE)	50.00	50.97	102	50.27	101	69-129	59-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	49.62	99	49.49	99	70-124	61-133	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	46.75	93	46.50	93	74-122	66-130	1	0-20	
Ethanol	500.0	355.3	71	433.2	87	51-135	37-149	20	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 0
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 11 of 17

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-259	**Soil**	**GC/MS PP**	**06/26/13**	**06/26/13 15:10**	**130626L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	79.35	159	69.72	139	80-120	73-127	13	0-20	X
Benzene	50.00	42.00	84	42.03	84	80-120	73-127	0	0-20	
Bromobenzene	50.00	47.08	94	47.67	95	80-120	73-127	1	0-20	
Bromochloromethane	50.00	45.45	91	45.45	91	80-120	73-127	0	0-20	
Bromodichloromethane	50.00	54.40	109	54.87	110	80-120	73-127	1	0-20	
Bromoform	50.00	58.42	117	61.98	124	80-120	73-127	6	0-20	ME
Bromomethane	50.00	53.23	106	53.92	108	80-120	73-127	1	0-20	
2-Butanone	50.00	63.70	127	58.00	116	80-120	73-127	9	0-20	ME
n-Butylbenzene	50.00	46.67	93	47.44	95	77-123	69-131	2	0-25	
sec-Butylbenzene	50.00	43.33	87	43.87	88	80-120	73-127	1	0-20	
tert-Butylbenzene	50.00	42.37	85	43.09	86	80-120	73-127	2	0-20	
Carbon Disulfide	50.00	40.63	81	40.27	81	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	58.29	117	59.06	118	65-137	53-149	1	0-20	
Chlorobenzene	50.00	41.69	83	41.96	84	80-120	73-127	1	0-20	
Chloroethane	50.00	41.91	84	41.44	83	80-120	73-127	1	0-20	
Chloroform	50.00	50.57	101	50.77	102	80-120	73-127	0	0-20	
Chloromethane	50.00	46.17	92	46.59	93	80-120	73-127	1	0-20	
2-Chlorotoluene	50.00	44.05	88	44.23	88	80-120	73-127	0	0-20	
4-Chlorotoluene	50.00	44.40	89	44.85	90	80-120	73-127	1	0-20	
Dibromochloromethane	50.00	55.06	110	55.30	111	80-120	73-127	0	0-20	
1,2-Dibromo-3-Chloropropane	50.00	55.54	111	56.78	114	80-120	73-127	2	0-20	
1,2-Dibromoethane	50.00	48.84	98	49.72	99	80-120	73-127	2	0-20	
Dibromomethane	50.00	49.00	98	49.26	99	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	42.85	86	43.21	86	80-120	73-127	1	0-20	
1,3-Dichlorobenzene	50.00	43.16	86	44.20	88	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	45.56	91	46.26	93	80-120	73-127	2	0-20	
Dichlorodifluoromethane	50.00	58.35	117	58.37	117	80-120	73-127	0	0-20	
1,1-Dichloroethane	50.00	46.34	93	45.02	90	80-120	73-127	3	0-20	
1,2-Dichloroethane	50.00	54.89	110	54.94	110	80-120	73-127	0	0-20	
1,1-Dichloroethene	50.00	48.20	96	48.00	96	68-128	58-138	0	0-20	
c-1,2-Dichloroethene	50.00	45.36	91	44.24	88	80-120	73-127	2	0-20	
t-1,2-Dichloroethene	50.00	44.37	89	45.15	90	80-120	73-127	2	0-20	
1,2-Dichloropropane	50.00	46.03	92	46.47	93	79-115	73-121	1	0-25	
1,3-Dichloropropane	50.00	47.03	94	48.32	97	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	52.18	104	52.48	105	80-120	73-127	1	0-20	
1,1-Dichloropropene	50.00	46.48	93	47.00	94	80-120	73-127	1	0-20	
c-1,3-Dichloropropene	50.00	50.06	100	50.46	101	80-120	73-127	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	51.62	103	53.48	107	80-120	73-127	4	0-20	
Ethylbenzene	50.00	45.88	92	46.52	93	80-120	73-127	1	0-20	
2-Hexanone	50.00	49.17	98	53.40	107	80-120	73-127	8	0-20	
Isopropylbenzene	50.00	43.29	87	43.87	88	80-120	73-127	1	0-20	
p-Isopropyltoluene	50.00	43.42	87	44.36	89	80-120	73-127	2	0-20	
Methylene Chloride	50.00	45.02	90	44.11	88	80-120	73-127	2	0-20	
4-Methyl-2-Pentanone	50.00	47.75	96	50.64	101	80-120	73-127	6	0-20	
Naphthalene	50.00	48.19	96	51.68	103	80-120	73-127	7	0-20	
n-Propylbenzene	50.00	42.63	85	42.36	85	80-120	73-127	1	0-20	
Styrene	50.00	43.91	88	44.20	88	80-120	73-127	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	55.19	110	55.38	111	80-120	73-127	0	0-20	
1,1,2,2-Tetrachloroethane	50.00	47.27	95	50.22	100	80-120	73-127	6	0-20	
Tetrachloroethene	50.00	48.87	98	48.68	97	80-120	73-127	0	0-20	
Toluene	50.00	44.60	89	44.90	90	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	51.25	102	54.23	108	80-120	73-127	6	0-20	
1,2,4-Trichlorobenzene	50.00	50.87	102	53.34	107	80-120	73-127	5	0-20	
1,1,1-Trichloroethane	50.00	53.41	107	54.26	109	80-120	73-127	2	0-20	
1,1,2-Trichloroethane	50.00	47.13	94	47.84	96	80-120	73-127	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	49.35	99	48.72	97	80-120	73-127	1	0-20	
Trichloroethene	50.00	47.41	95	48.81	98	80-120	73-127	3	0-20	
Trichlorofluoromethane	50.00	60.86	122	58.19	116	80-120	73-127	4	0-20	ME
1,2,3-Trichloropropane	50.00	52.83	106	54.50	109	80-120	73-127	3	0-20	
1,2,4-Trimethylbenzene	50.00	47.40	95	47.69	95	80-120	73-127	1	0-20	
1,3,5-Trimethylbenzene	50.00	48.35	97	48.20	96	80-120	73-127	0	0-20	
Vinyl Acetate	50.00	42.68	85	46.23	92	80-120	73-127	8	0-20	
Vinyl Chloride	50.00	43.42	87	41.60	83	67-127	57-137	4	0-20	
p/m-Xylene	100.0	88.59	89	88.51	89	80-120	73-127	0	0-20	
o-Xylene	50.00	42.60	85	42.92	86	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	44.52	89	45.75	92	70-124	61-133	3	0-20	
Tert-Butyl Alcohol (TBA)	250.0	246.5	99	250.4	100	73-121	65-129	2	0-20	
Diisopropyl Ether (DIPE)	50.00	46.59	93	47.79	96	69-129	59-139	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	44.60	89	45.42	91	70-124	61-133	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	42.01	84	43.22	86	74-122	66-130	3	0-20	
Ethanol	500.0	518.3	104	521.5	104	51-135	37-149	1	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 14 of 17

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-262	**Soil**	**GC/MS PP**	**06/27/13**	**06/27/13 15:00**	**130627L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	77.57	155	63.86	128	80-120	73-127	19	0-20	X
Benzene	50.00	41.81	84	40.12	80	80-120	73-127	4	0-20	
Bromobenzene	50.00	47.61	95	45.87	92	80-120	73-127	4	0-20	
Bromochloromethane	50.00	45.34	91	41.37	83	80-120	73-127	9	0-20	
Bromodichloromethane	50.00	55.72	111	52.54	105	80-120	73-127	6	0-20	
Bromoform	50.00	58.94	118	54.82	110	80-120	73-127	7	0-20	
Bromomethane	50.00	57.33	115	53.53	107	80-120	73-127	7	0-20	
2-Butanone	50.00	67.15	134	59.17	118	80-120	73-127	13	0-20	X
n-Butylbenzene	50.00	46.00	92	44.56	89	77-123	69-131	3	0-25	
sec-Butylbenzene	50.00	42.83	86	41.37	83	80-120	73-127	3	0-20	
tert-Butylbenzene	50.00	42.60	85	40.29	81	80-120	73-127	6	0-20	
Carbon Disulfide	50.00	40.65	81	36.99	74	80-120	73-127	9	0-20	ME
Carbon Tetrachloride	50.00	62.94	126	58.59	117	65-137	53-149	7	0-20	
Chlorobenzene	50.00	41.54	83	39.96	80	80-120	73-127	4	0-20	
Chloroethane	50.00	41.78	84	39.48	79	80-120	73-127	6	0-20	ME
Chloroform	50.00	52.08	104	48.97	98	80-120	73-127	6	0-20	
Chloromethane	50.00	46.88	94	42.63	85	80-120	73-127	10	0-20	
2-Chlorotoluene	50.00	44.97	90	42.92	86	80-120	73-127	5	0-20	
4-Chlorotoluene	50.00	44.52	89	42.28	85	80-120	73-127	5	0-20	
Dibromochloromethane	50.00	55.68	111	52.28	105	80-120	73-127	6	0-20	
1,2-Dibromo-3-Chloropropane	50.00	55.86	112	50.97	102	80-120	73-127	9	0-20	
1,2-Dibromoethane	50.00	47.64	95	45.53	91	80-120	73-127	5	0-20	
Dibromomethane	50.00	49.17	98	45.86	92	80-120	73-127	7	0-20	
1,2-Dichlorobenzene	50.00	42.59	85	40.57	81	80-120	73-127	5	0-20	
1,3-Dichlorobenzene	50.00	42.92	86	41.39	83	80-120	73-127	4	0-20	
1,4-Dichlorobenzene	50.00	45.40	91	43.53	87	80-120	73-127	4	0-20	
Dichlorodifluoromethane	50.00	59.06	118	54.23	108	80-120	73-127	9	0-20	
1,1-Dichloroethane	50.00	46.46	93	43.40	87	80-120	73-127	7	0-20	
1,2-Dichloroethane	50.00	57.45	115	53.72	107	80-120	73-127	7	0-20	
1,1-Dichloroethene	50.00	50.83	102	46.04	92	68-128	58-138	10	0-20	
c-1,2-Dichloroethene	50.00	44.82	90	41.98	84	80-120	73-127	7	0-20	
t-1,2-Dichloroethene	50.00	44.95	90	41.67	83	80-120	73-127	8	0-20	
1,2-Dichloropropane	50.00	45.35	91	42.89	86	79-115	73-121	6	0-25	
1,3-Dichloropropane	50.00	46.97	94	44.25	88	80-120	73-127	6	0-20	
2,2-Dichloropropane	50.00	57.44	115	52.68	105	80-120	73-127	9	0-20	
1,1-Dichloropropene	50.00	48.49	97	45.80	92	80-120	73-127	6	0-20	
c-1,3-Dichloropropene	50.00	51.02	102	48.07	96	80-120	73-127	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1682
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	52.72	105	49.72	99	80-120	73-127	6	0-20	
Ethylbenzene	50.00	46.22	92	44.65	89	80-120	73-127	3	0-20	
2-Hexanone	50.00	52.23	104	48.25	97	80-120	73-127	8	0-20	
Isopropylbenzene	50.00	43.87	88	42.29	85	80-120	73-127	4	0-20	
p-Isopropyltoluene	50.00	43.18	86	42.07	84	80-120	73-127	3	0-20	
Methylene Chloride	50.00	44.20	88	40.19	80	80-120	73-127	9	0-20	
4-Methyl-2-Pentanone	50.00	47.43	95	45.97	92	80-120	73-127	3	0-20	
Naphthalene	50.00	48.52	97	45.15	90	80-120	73-127	7	0-20	
n-Propylbenzene	50.00	42.48	85	41.41	83	80-120	73-127	3	0-20	
Styrene	50.00	43.97	88	42.42	85	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	55.88	112	53.25	106	80-120	73-127	5	0-20	
1,1,2,2-Tetrachloroethane	50.00	47.30	95	43.04	86	80-120	73-127	9	0-20	
Tetrachloroethene	50.00	49.21	98	46.72	93	80-120	73-127	5	0-20	
Toluene	50.00	45.26	91	43.25	86	80-120	73-127	5	0-20	
1,2,3-Trichlorobenzene	50.00	52.25	105	48.26	97	80-120	73-127	8	0-20	
1,2,4-Trichlorobenzene	50.00	50.41	101	47.41	95	80-120	73-127	6	0-20	
1,1,1-Trichloroethane	50.00	57.30	115	54.28	109	80-120	73-127	5	0-20	
1,1,2-Trichloroethane	50.00	47.01	94	43.40	87	80-120	73-127	8	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	51.88	104	47.64	95	80-120	73-127	9	0-20	
Trichloroethene	50.00	49.75	100	47.47	95	80-120	73-127	5	0-20	
Trichlorofluoromethane	50.00	63.01	126	57.77	116	80-120	73-127	9	0-20	ME
1,2,3-Trichloropropane	50.00	54.62	109	50.48	101	80-120	73-127	8	0-20	
1,2,4-Trimethylbenzene	50.00	46.99	94	45.36	91	80-120	73-127	4	0-20	
1,3,5-Trimethylbenzene	50.00	48.29	97	47.10	94	80-120	73-127	3	0-20	
Vinyl Acetate	50.00	45.38	91	40.42	81	80-120	73-127	12	0-20	
Vinyl Chloride	50.00	42.71	85	39.53	79	67-127	57-137	8	0-20	
p/m-Xylene	100.0	89.73	90	86.71	87	80-120	73-127	3	0-20	
o-Xylene	50.00	42.70	85	41.70	83	80-120	73-127	2	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	48.62	97	44.21	88	70-124	61-133	10	0-20	
Tert-Butyl Alcohol (TBA)	250.0	236.8	95	222.1	89	73-121	65-129	6	0-20	
Diisopropyl Ether (DIPE)	50.00	48.91	98	45.70	91	69-129	59-139	7	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	48.70	97	44.64	89	70-124	61-133	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	45.71	91	42.31	85	74-122	66-130	8	0-20	
Ethanol	500.0	504.8	101	456.3	91	51-135	37-149	10	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1682
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02		Page 17 of 17

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1682

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 5035	834	GC 4	2
EPA 8015B (M)	EPA 3550B	847	GC 46	1
EPA 8082	EPA 3545	669	GC 58	1
EPA 8260B	EPA 5035	823	GC/MS BB	2
EPA 8260B	EPA 5035	849	GC/MS PP	2
EPA 8270C SIM PAHs	EPA 3545	449	GC/MS EEE	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1682 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/25/2013

PAGE: 1 OF 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 13-06-1682

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS
SBV-05-19 DUP = SVOCs analysis, no PCBs. Others as marked.
SBV-04-29 = no VOC analysis

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
1	SV-06-02	6/25/13	0735	Soil	1	X					
2	SV-06-05	↓	0740		1	X					
3	SBV-05-02	6/24/13	1620		9	X	X	X	X	X	X
4	SBV-05-05		1630		9	X	X	X	X	X	X
5	SBV-05-09	↓	1640		9		X	X	X	X	X
6	SBV-05-19	6/25/13	0855		9		X	X	X	X	X
7	SBV-05-19 DUP		0900		9		X	X	[illegible]		X
8	SBV-05-29		0930		9		X	X	X		X
9	SBV-04-05		0945		9		X	X	X	X	X
10	SBV-04-09		1145		9		X	X	X	X	X
11	SBV-04-20		1205		9		X	X	X	X	X
12	SBV-04-29		1220		5		[illegible]	X	X		X
13	SBV-04-37	↓	1235	↓	9		X	X			X

FM 6/25/13

Relinquished by: (Signature) FMansfield	Received by: (Signature) CFE	Date: 6/25/13	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) CFE	Date: 6/25/13	Time: 1840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/25/2013

PAGE: 2 OF 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
P.O. NO.: WR1767-02
PROJECT CONTACT: Syed Rehan / Frances Mansfield
QUOTE NO.:
SAMPLER(S): F.Mansfield / B. Cozzens
LAB USE ONLY: 06-1682

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
14	SBV-03-02	6/25/13	1255	soil	1	X					
15	SBV-03-05		1300		9	X	X	X	X	X	X
16	SBV-03-09		1335		9		X	X	X	X	X
17	SBV-03-20		1345		9		X	X	X	X	X
18	SBV-03-30		1400		9		X	X	X		X
19	SV-02-02		1409		1	X					
20	SV-02-05		1417		1	X					
21	SV-03-02		1432		1	X					
22	SV-03-05		1440		1	X					
23	SBV-04-20 DUP		1205		4		X				

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/25/13	Time: 16:00
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 6/25/13	Time: 1840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/24/2013 - 6/25/2013
PAGE: 3 OF 3

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland, CA 94607
TEL: 510-836-3034
E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
PROJECT CONTACT: Syed Rehan / Frances Mansfield
SAMPLER(S): F.Mansfield / B. Cozzens
P.O. NO.: WR1767-02
QUOTE NO.:
LAB USE ONLY: 016-1682

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Soil

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	T22/CAM17 metals (6010B)	VOCs (8260B)	TPHg (8015M)	SVOCs (8270C SIM)	PCBs (8082)	TPHd/mo (8015M)
24	SBG-2-60	6/24/13	1623	Soil	9		X	X	X		X
25	SBG-2-70	6/25/13	0754	Soil	9		X	X	X		X
26	DUP-SBG-2-70	6/25/13	0754	Soil	9		X	X	X		X
27	SBG-2-100	6/25/13	0910	Soil	9		X	X	X		X

Relinquished by: (Signature) FMansfield	Received by: (Signature) CEL	Date: 6/25/13	Time: 16:00
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 6/25/13	Time: 1840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1682

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants DATE: 06/25/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.7 °C - 0.2 °C (CF) = 2.5 °C ☒ ~~Blank~~ ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☒ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☒	☐	☐
COC document(s) received complete	☒	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☒	☐	☐
Sample container label(s) consistent with COC	☐	☒	☐
Sample container(s) intact and good condition	☒	☐	☐
Proper containers and sufficient volume for analyses requested	☒	☐	☐
Analyses received within holding time	☒	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☒
Proper preservation noted on COC or sample container	☒	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☒
Tedlar bag(s) free of condensation	☐	☐	☒

CONTAINER TYPE:

Solid: ☐4ozCGJ ☒8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☒TerraCores® (6) ☒2ozPJ (2)

Water: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** _____

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** _____

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1 6 8 2

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☑ **Sample(s) received but NOT LISTED on COC** — (-28) SBG-2-110 6/25/13 @ 09:56 not listed on COC
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test — 1 x 8 oz clear glass jar
- ☐ **Improper container(s) used** – list test — 2 x 2 oz plastic jar
- ☐ **Improper preservative used** – list test — 6 x terracores
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: HH 06/25/13

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Stephen Nowak

From: Frances Mansfield [FMansfield@Geosyntec.com]
Sent: Wednesday, June 26, 2013 11:17 AM
To: Stephen Nowak
Cc: Syed Rehan
Subject: Re: Log In and COC for KP Chatsworth / WR1767-02 CEL 13-06-1682
Attachments: image003.jpg; image004.jpg

Steve,

For soil sample SBG-2-110, please analyze for VOCs, TPHg/d/mo, SVOCs. No PCB analysis required.

We have no further samples to send - confirming that no courier pickup required today or tomorrow.

Frances

(from 'phone, hence brevity)
Cell: (714) 292 8785

On Jun 26, 2013, at 11:00, "Stephen Nowak" <snowak@calscience.com> wrote:

> Please see attached COC and sample anomaly form.
>
> One additional sample was received yesterday that was not listed on the COC.
> Sample ID is SBG-2-110 dated 06/25/13 @ 09:56.
>
> Please let me know if you need this sample tested.
>
>
> Stephen Nowak
> Project Manager
>
> [cid:image004.jpg@01CE725C.48CD60E0]
> 7440 Lincoln Way
> Garden Grove, CA 92841-1427
> (714) 895-5494
> www.calscience.com<http://www.calscience.com/>
>
> [cid:image003.jpg@01CE725C.48C17A00]
>
> PRIVACY NOTICE:
> This email (and/or the documents attached to it) is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential, or exempt from disclosure under applicable Federal or State law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately and delete this e-mail and all attachments.
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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-06-1683

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767-02

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/03/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-06-1683

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Work Order Narrative

Work Order: 13-06-1683 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 06/25/13. They were assigned to Work Order 13-06-1683.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Geosyntec Consultants	Work Order:	13-06-1683
	1111 Broadway, FL 6TH	Project Name:	KP Chatsworth / WR1767-02
	Oakland, CA 94607-4172	PO Number:	
		Date Received:	06/25/13
Attn:	Syed Rehan		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
EB-3	13-06-1683-1	06/25/13 11:02	6	Aqueous
SBG-2-GW	13-06-1683-2	06/25/13 11:24	6	Aqueous
DUP-SBG-2-GW	13-06-1683-3	06/25/13 11:24	6	Aqueous
TB-3	13-06-1683-4	06/25/13 11:58	2	Aqueous

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-06-1683
Project Name: KP Chatsworth / WR1767-02
Received: 06/25/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SBG-2-GW (13-06-1683-2)						
Acetone	15	J	10*	ug/L	EPA 8260B	EPA 5030C
Benzene	0.30	J	0.14*	ug/L	EPA 8260B	EPA 5030C
2-Butanone	3.3	J	2.2*	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	0.15	J	0.14*	ug/L	EPA 8260B	EPA 5030C
Toluene	0.33	J	0.24*	ug/L	EPA 8260B	EPA 5030C
DUP-SBG-2-GW (13-06-1683-3)						
Acetone	16	J	10*	ug/L	EPA 8260B	EPA 5030C
Benzene	0.31	J	0.14*	ug/L	EPA 8260B	EPA 5030C
2-Butanone	3.3	J	2.2*	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	0.16	J	0.14*	ug/L	EPA 8260B	EPA 5030C
Toluene	0.35	J	0.24*	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-3	**13-06-1683-1-F**	**06/25/13 11:02**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:29**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-GW	**13-06-1683-2-F**	**06/25/13 11:24**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:45**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-GW	**13-06-1683-3-F**	**06/25/13 11:24**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 03:02**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-286-27**	**N/A**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:34**	**130626B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	2500	2100	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 3510C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-3	**13-06-1683-1-F**	**06/25/13 11:02**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:29**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-GW	**13-06-1683-2-F**	**06/25/13 11:24**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 02:45**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-GW	**13-06-1683-3-F**	**06/25/13 11:24**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 03:02**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	99	68-140	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-296-138**	**N/A**	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:34**	**130626B14**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	500	480	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	68-140	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-3	**13-06-1683-1-E**	**06/25/13 11:02**	**Aqueous**	**GC 42**	**06/26/13**	**06/26/13 21:46**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	82	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-GW	**13-06-1683-2-E**	**06/25/13 11:24**	**Aqueous**	**GC 42**	**06/26/13**	**06/26/13 22:21**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	83	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-GW	**13-06-1683-3-E**	**06/25/13 11:24**	**Aqueous**	**GC 42**	**06/26/13**	**06/26/13 22:56**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	72	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-704-434**	**N/A**	**Aqueous**	**GC 42**	**06/26/13**	**06/26/13 11:17**	**130626B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	100	48	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	76	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-3	**13-06-1683-1-A**	**06/25/13 11:02**	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/27/13 22:27**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1683
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 3 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	103	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SBG-2-GW	**13-06-1683-2-A**	**06/25/13 11:24**	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/27/13 23:41**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	15	20	10	1	J
Benzene	0.30	0.50	0.14	1	J
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	3.3	10	2.2	1	J
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	0.15	1.0	0.14	1	J
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	0.33	1.0	0.24	1	J
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1683
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 6 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	101	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DUP-SBG-2-GW	**13-06-1683-3-A**	**06/25/13 11:24**	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/28/13 00:17**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	16	20	10	1	J
Benzene	0.31	0.50	0.14	1	J
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	3.3	10	2.2	1	J
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	0.16	1.0	0.14	1	J
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	0.35	1.0	0.24	1	J
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1683
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 9 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	100	80-126	
1,2-Dichloroethane-d4	103	80-134	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-3	**13-06-1683-4-A**	**06/25/13 11:58**	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/27/13 23:04**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	06/25/13
1111 Broadway, FL 6TH	Work Order:	13-06-1683
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767-02		Page 12 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	102	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1049**	**N/A**	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/27/13 15:05**	**130627L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767-02

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1683
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: KP Chatsworth / WR1767-02			Page 15 of 15

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	99	80-126	
1,2-Dichloroethane-d4	101	80-134	
Toluene-d8	99	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8015B (M)
Page 1 of 3

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1585-16	**Aqueous**	**GC 42**	**06/26/13**	**06/26/13 13:02**	**130626S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	2112	106	2114	106	68-122	0	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-06-1490-10	**Aqueous**	**GC/MS GGG**	**06/27/13**	**06/27/13 18:46**	**130627S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	250.0	227.9	91	225.0	90	70-130	1	0-20	
Benzene	ND	250.0	264.2	106	244.0	98	78-120	8	0-20	
Bromobenzene	ND	250.0	269.4	108	256.3	103	70-130	5	0-20	
Bromochloromethane	ND	250.0	253.8	102	243.5	97	70-130	4	0-20	
Bromodichloromethane	ND	250.0	281.3	113	264.9	106	70-130	6	0-20	
Bromoform	ND	250.0	264.5	106	261.9	105	70-130	1	0-20	
Bromomethane	ND	250.0	175.7	70	162.2	65	70-130	8	0-20	3
2-Butanone	ND	250.0	219.8	88	215.1	86	70-130	2	0-20	
n-Butylbenzene	ND	250.0	269.5	108	253.9	102	70-130	6	0-25	
sec-Butylbenzene	ND	250.0	254.6	102	239.1	96	70-130	6	0-20	
tert-Butylbenzene	ND	250.0	274.1	110	257.7	103	70-130	6	0-20	
Carbon Disulfide	ND	250.0	245.5	98	225.4	90	70-130	9	0-20	
Carbon Tetrachloride	ND	250.0	252.5	101	232.0	93	69-139	8	0-20	
Chlorobenzene	ND	250.0	251.6	101	235.5	94	70-130	7	0-20	
Chloroethane	ND	250.0	241.7	97	222.0	89	70-130	9	0-20	
Chloroform	41.98	250.0	308.6	107	286.9	98	70-130	7	0-20	
Chloromethane	ND	250.0	287.0	115	253.9	102	70-130	12	0-20	
2-Chlorotoluene	ND	250.0	259.5	104	241.0	96	70-130	7	0-20	
4-Chlorotoluene	ND	250.0	255.2	102	241.5	97	70-130	6	0-20	
Dibromochloromethane	ND	250.0	273.7	109	262.1	105	70-130	4	0-20	
1,2-Dibromo-3-Chloropropane	ND	250.0	228.7	91	227.6	91	70-130	0	0-20	
1,2-Dibromoethane	ND	250.0	251.0	100	247.8	99	80-123	1	0-20	
Dibromomethane	ND	250.0	258.5	103	248.1	99	70-130	4	0-20	
1,2-Dichlorobenzene	ND	250.0	248.4	99	239.2	96	76-120	4	0-20	
1,3-Dichlorobenzene	ND	250.0	247.3	99	235.2	94	70-130	5	0-20	
1,4-Dichlorobenzene	ND	250.0	260.4	104	249.1	100	70-130	4	0-20	
Dichlorodifluoromethane	ND	250.0	265.1	106	241.1	96	70-130	9	0-20	
1,1-Dichloroethane	31.19	250.0	286.8	102	267.0	94	70-130	7	0-20	
1,2-Dichloroethane	5.722	250.0	276.7	108	264.9	104	76-130	4	0-20	
1,1-Dichloroethene	189.1	250.0	445.5	103	410.7	89	70-130	8	0-27	
c-1,2-Dichloroethene	100.1	250.0	369.9	108	345.8	98	70-130	7	0-20	
t-1,2-Dichloroethene	ND	250.0	268.3	107	250.9	100	70-130	7	0-20	
1,2-Dichloropropane	ND	250.0	267.6	107	254.2	102	70-130	5	0-25	
1,3-Dichloropropane	ND	250.0	264.3	106	254.8	102	70-130	4	0-20	
2,2-Dichloropropane	ND	250.0	237.4	95	205.3	82	70-130	14	0-20	
1,1-Dichloropropene	ND	250.0	269.0	108	247.6	99	70-130	8	0-20	
c-1,3-Dichloropropene	ND	250.0	268.7	107	253.1	101	70-130	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR1767-02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	250.0	257.9	103	246.2	98	70-130	5	0-20	
Ethylbenzene	ND	250.0	275.7	110	256.3	103	73-127	7	0-20	
2-Hexanone	ND	250.0	212.3	85	211.0	84	70-130	1	0-20	
Isopropylbenzene	ND	250.0	259.1	104	240.1	96	70-130	8	0-20	
p-Isopropyltoluene	ND	250.0	252.1	101	236.8	95	70-130	6	0-20	
Methylene Chloride	ND	250.0	261.3	105	251.0	100	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	250.0	219.7	88	212.8	85	70-130	3	0-20	
Naphthalene	ND	250.0	237.3	95	232.1	93	70-130	2	0-20	
n-Propylbenzene	ND	250.0	252.1	101	232.9	93	70-130	8	0-20	
Styrene	ND	250.0	280.1	112	262.1	105	70-130	7	0-20	
1,1,1,2-Tetrachloroethane	ND	250.0	284.5	114	267.2	107	70-130	6	0-20	
1,1,2,2-Tetrachloroethane	ND	250.0	254.8	102	254.3	102	70-130	0	0-20	
Tetrachloroethene	532.6	250.0	783.6	100	716.4	73	70-130	9	0-20	
Toluene	ND	250.0	271.2	108	251.2	100	72-126	8	0-20	
1,2,3-Trichlorobenzene	ND	250.0	265.2	106	254.6	102	70-130	4	0-20	
1,2,4-Trichlorobenzene	ND	250.0	260.4	104	250.4	100	70-130	4	0-20	
1,1,1-Trichloroethane	ND	250.0	265.9	106	243.8	98	70-130	9	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	140.4	250.0	346.5	82	318.4	71	70-130	8	0-20	
1,1,2-Trichloroethane	ND	250.0	261.7	105	254.4	102	70-130	3	0-20	
Trichloroethene	162.1	250.0	423.0	104	391.5	92	74-122	8	0-20	
Trichlorofluoromethane	57.94	250.0	290.2	93	263.7	82	70-130	10	0-20	
1,2,3-Trichloropropane	ND	250.0	249.4	100	244.4	98	70-130	2	0-20	
1,2,4-Trimethylbenzene	ND	250.0	283.0	113	265.7	106	70-130	6	0-20	
1,3,5-Trimethylbenzene	ND	250.0	287.7	115	266.5	107	70-130	8	0-20	
Vinyl Acetate	ND	250.0	254.4	102	251.0	100	70-130	1	0-20	
Vinyl Chloride	ND	250.0	232.6	93	213.0	85	65-131	9	0-24	
p/m-Xylene	ND	500.0	532.3	106	495.6	99	70-130	7	0-20	
o-Xylene	ND	250.0	265.1	106	247.4	99	70-130	7	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	250.0	251.8	101	244.8	98	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	ND	1250	1354	108	1275	102	65-131	6	0-22	
Diisopropyl Ether (DIPE)	ND	250.0	270.1	108	257.5	103	68-128	5	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	250.0	264.6	106	253.5	101	69-123	4	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	250.0	265.4	106	255.9	102	70-124	4	0-20	
Ethanol	ND	2500	2970	119	2907	116	41-155	2	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 3510C
Method: EPA 8015B (M)
Page 1 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-286-27	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 01:24**	**130626B15**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	20000	21390	107	21470	107	75-117	0	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1683
Oakland, CA 94607-4172		Preparation:	EPA 3510C
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 2 of 5

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-296-138	**Aqueous**	**GC 46**	**06/26/13**	**06/27/13 00:51**	**130626B14**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	20000	19340	97	19520	98	75-117	1	0-13	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1683
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767-02			Page 3 of 5

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-704-434	**Aqueous**	**GC 42**	**06/26/13 11:52**	**130626B01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline	2000	2102	105	78-120	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767-02

Date Received: 06/25/13
Work Order: 13-06-1683
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1049	**Aqueous**	**GC/MS GGG**	**06/27/13 13:12**	**130627L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	49.64	99	70-130	60-140	
Benzene	50.00	52.76	106	70-130	60-140	
Bromobenzene	50.00	54.87	110	70-130	60-140	
Bromochloromethane	50.00	49.86	100	70-130	60-140	
Bromodichloromethane	50.00	55.38	111	70-130	60-140	
Bromoform	50.00	52.44	105	70-130	60-140	
Bromomethane	50.00	37.65	75	70-130	60-140	
2-Butanone	50.00	45.40	91	70-130	60-140	
n-Butylbenzene	50.00	62.13	124	77-123	69-131	ME
sec-Butylbenzene	50.00	55.81	112	70-130	60-140	
tert-Butylbenzene	50.00	57.05	114	70-130	60-140	
Carbon Disulfide	50.00	51.75	104	70-130	60-140	
Carbon Tetrachloride	50.00	53.91	108	66-138	54-150	
Chlorobenzene	50.00	51.08	102	70-130	60-140	
Chloroethane	50.00	50.05	100	70-130	60-140	
Chloroform	50.00	52.80	106	70-130	60-140	
Chloromethane	50.00	54.22	108	70-130	60-140	
2-Chlorotoluene	50.00	53.72	107	70-130	60-140	
4-Chlorotoluene	50.00	53.43	107	70-130	60-140	
Dibromochloromethane	50.00	53.77	108	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	43.57	87	70-130	60-140	
1,2-Dibromoethane	50.00	48.93	98	70-130	60-140	
Dibromomethane	50.00	50.51	101	70-130	60-140	
1,2-Dichlorobenzene	50.00	51.25	102	70-130	60-140	
1,3-Dichlorobenzene	50.00	51.90	104	70-130	60-140	
1,4-Dichlorobenzene	50.00	54.73	109	70-130	60-140	
Dichlorodifluoromethane	50.00	74.97	150	70-130	60-140	X
1,1-Dichloroethane	50.00	51.56	103	70-130	60-140	
1,2-Dichloroethane	50.00	52.71	105	80-129	72-137	
1,1-Dichloroethene	50.00	53.05	106	71-131	61-141	
c-1,2-Dichloroethene	50.00	53.91	108	70-130	60-140	
t-1,2-Dichloroethene	50.00	54.93	110	70-130	60-140	
1,2-Dichloropropane	50.00	53.15	106	79-115	73-121	
1,3-Dichloropropane	50.00	50.80	102	70-130	60-140	
2,2-Dichloropropane	50.00	67.71	135	70-130	60-140	ME
1,1-Dichloropropene	50.00	57.35	115	70-130	60-140	
c-1,3-Dichloropropene	50.00	56.81	114	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	06/25/13
1111 Broadway, FL 6TH		Work Order:	13-06-1683
Oakland, CA 94607-4172		Preparation:	EPA 5030C
		Method:	EPA 8260B
Project: KP Chatsworth / WR1767-02			Page 5 of 5

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	54.47	109	70-130	60-140	
Ethylbenzene	50.00	57.06	114	80-123	73-130	
2-Hexanone	50.00	41.16	82	70-130	60-140	
Isopropylbenzene	50.00	54.63	109	70-130	60-140	
p-Isopropyltoluene	50.00	55.53	111	70-130	60-140	
Methylene Chloride	50.00	52.12	104	70-130	60-140	
4-Methyl-2-Pentanone	50.00	41.09	82	70-130	60-140	
Naphthalene	50.00	46.85	94	70-130	60-140	
n-Propylbenzene	50.00	54.14	108	70-130	60-140	
Styrene	50.00	57.03	114	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	57.19	114	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	46.91	94	70-130	60-140	
Tetrachloroethene	50.00	54.40	109	70-130	60-140	
Toluene	50.00	54.99	110	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	56.01	112	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	57.14	114	70-130	60-140	
1,1,1-Trichloroethane	50.00	55.13	110	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	63.89	128	70-130	60-140	
1,1,2-Trichloroethane	50.00	51.29	103	70-130	60-140	
Trichloroethene	50.00	53.49	107	70-130	60-140	
Trichlorofluoromethane	50.00	57.21	114	70-130	60-140	
1,2,3-Trichloropropane	50.00	47.87	96	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	59.30	119	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	60.39	121	70-130	60-140	
Vinyl Acetate	50.00	51.50	103	70-130	60-140	
Vinyl Chloride	50.00	48.64	97	70-136	59-147	
p/m-Xylene	100.0	110.4	110	70-130	60-140	
o-Xylene	50.00	54.20	108	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	49.14	98	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	288.8	116	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	53.85	108	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	52.90	106	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.86	106	67-133	56-144	
Ethanol	500.0	614.9	123	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 2
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-06-1683 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8015B (M)	EPA 3510C	847	GC 46	1
EPA 8015B (M)	EPA 5030C	797	GC 42	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-06-1683 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 6/25/2013

PAGE: 1 OF 1

LABORATORY CLIENT: Geosyntec Consultants

ADDRESS: 1111 Broadway, 6th Floor

CITY: Oakland, CA 94607

TEL: 510-836-3034

E-MAIL: srehan@geosyntec.com, fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth

PROJECT CONTACT: Syed Rehan / Frances Mansfield

SAMPLER(S): F.Mansfield / B. Cozzens

P.O. NO.: WR1767-02

QUOTE NO.:

LAB USE ONLY: 13-06-1683

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____ / ____ / ____

SPECIAL INSTRUCTIONS

REQUESTED ANALYSIS - Groundwater

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	VOCs (8260B)	TPHg (8015M)	TPHd/mo (8015M)
1	EB-3	6/25/13	1102	water	6	X	X	X
2	SBG-2-GW	6/25/13	1124	water	6	X	X	X
3	DUP-SBG-2-GW	6/25/13	1124	water	6	X	X	X
4	TB-3	6/25/13	1158	water	2	X		

Relinquished by: (Signature) F.Mansfield	Received by: (Signature) CEL	Date: 6/25/13	Time: 16 00
Relinquished by: (Signature)	Received by: (Signature) CEL	Date: 6/25/13	Time: 1840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-06-1 6 8 3 (6/25/13)

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants DATE: 06/25/13

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.8 °C - 0.2 °C (CF) = 2.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☒ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☑ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☒VOA (5)* ☒VOAh (5)* ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☒500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 130613B **Labeled/Checked by:** JP

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** _____

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** _____

*(-2), (-3) vials received unpreserved.

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-07-0950

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR 1767

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/22/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: KP Chatsworth / WR 1767
Work Order Number: 13-07-0950

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-07-0950 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 07/15/13. They were assigned to Work Order 13-07-0950.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client:	Geosyntec Consultants	Work Order:	13-07-0950
	1111 Broadway, FL 6TH	Project Name:	KP Chatsworth / WR 1767
	Oakland, CA 94607-4172	PO Number:	
		Date Received:	07/15/13
Attn:	Syed Rehan		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SV-12-05	13-07-0950-1	07/15/13 09:20	4	Soil
SV-12-12.5	13-07-0950-2	07/15/13 09:35	4	Soil
TB-1	13-07-0950-3	07/15/13 00:00	2	Aqueous

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-0950
Project Name: KP Chatsworth / WR 1767
Received: 07/15/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-12-05 (13-07-0950-1)						
Acetone	22	J	6.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	6.2		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.6	J	4.0*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.18	J	0.17*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.2		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	13		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	3.5		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.4	J	0.28*	ug/kg	EPA 8260B	EPA 5035
SV-12-12.5 (13-07-0950-2)						
Acetone	26	J	6.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.6		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.7	J	3.9*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.36	J	0.32*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		1.0	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	4.7		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	2.6		1.0	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.93	J	0.28*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-12-05	**13-07-0950-1-C**	**07/15/13 09:20**	**Soil**	**GC/MS PP**	**07/15/13**	**07/17/13 20:13**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	22	53	6.6	1.06	J
Benzene	6.2	1.1	0.14	1.06	
Bromobenzene	ND	1.1	0.22	1.06	
Bromochloromethane	ND	2.1	0.73	1.06	
Bromodichloromethane	ND	1.1	0.25	1.06	
Bromoform	ND	5.3	0.84	1.06	
Bromomethane	ND	21	10	1.06	
2-Butanone	4.6	21	4.0	1.06	J
n-Butylbenzene	0.18	1.1	0.17	1.06	J
sec-Butylbenzene	ND	1.1	0.61	1.06	
tert-Butylbenzene	ND	1.1	0.16	1.06	
Carbon Disulfide	ND	11	0.32	1.06	
Carbon Tetrachloride	ND	1.1	0.30	1.06	
Chlorobenzene	ND	1.1	0.24	1.06	
Chloroethane	ND	2.1	2.0	1.06	
Chloroform	ND	1.1	0.25	1.06	
Chloromethane	ND	21	0.73	1.06	
2-Chlorotoluene	ND	1.1	0.25	1.06	
4-Chlorotoluene	ND	1.1	0.23	1.06	
Dibromochloromethane	ND	2.1	0.60	1.06	
1,2-Dibromo-3-Chloropropane	ND	5.3	1.8	1.06	
1,2-Dibromoethane	ND	1.1	0.27	1.06	
Dibromomethane	ND	1.1	0.82	1.06	
1,2-Dichlorobenzene	ND	1.1	0.24	1.06	
1,3-Dichlorobenzene	ND	1.1	0.19	1.06	
1,4-Dichlorobenzene	ND	1.1	0.24	1.06	
Dichlorodifluoromethane	ND	2.1	0.47	1.06	
1,1-Dichloroethane	ND	1.1	1.1	1.06	
1,2-Dichloroethane	ND	1.1	0.33	1.06	
1,1-Dichloroethene	ND	1.1	0.37	1.06	
c-1,2-Dichloroethene	ND	1.1	0.30	1.06	
t-1,2-Dichloroethene	ND	1.1	0.54	1.06	
1,2-Dichloropropane	ND	1.1	0.46	1.06	
1,3-Dichloropropane	ND	1.1	0.27	1.06	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.3	0.35	1.06	
1,1-Dichloropropene	ND	2.1	0.35	1.06	
c-1,3-Dichloropropene	ND	1.1	0.27	1.06	
t-1,3-Dichloropropene	ND	2.1	0.64	1.06	
Ethylbenzene	2.2	1.1	0.16	1.06	
2-Hexanone	ND	21	1.9	1.06	
Isopropylbenzene	ND	1.1	0.58	1.06	
p-Isopropyltoluene	ND	1.1	0.67	1.06	
Methylene Chloride	ND	11	1.4	1.06	
4-Methyl-2-Pentanone	ND	21	4.6	1.06	
Naphthalene	ND	11	0.86	1.06	
n-Propylbenzene	ND	2.1	0.53	1.06	
Styrene	ND	1.1	0.64	1.06	
1,1,1,2-Tetrachloroethane	ND	1.1	0.25	1.06	
1,1,2,2-Tetrachloroethane	ND	2.1	0.37	1.06	
Tetrachloroethene	13	1.1	0.22	1.06	
Toluene	3.5	1.1	0.55	1.06	
1,2,3-Trichlorobenzene	ND	2.1	0.97	1.06	
1,2,4-Trichlorobenzene	ND	2.1	0.33	1.06	
1,1,1-Trichloroethane	ND	1.1	0.24	1.06	
1,1,2-Trichloroethane	ND	1.1	1.0	1.06	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.37	1.06	
Trichloroethene	ND	2.1	0.32	1.06	
Trichlorofluoromethane	ND	11	0.40	1.06	
1,2,3-Trichloropropane	ND	2.1	0.73	1.06	
1,2,4-Trimethylbenzene	ND	2.1	0.62	1.06	
1,3,5-Trimethylbenzene	ND	2.1	0.58	1.06	
Vinyl Acetate	ND	11	5.0	1.06	
Vinyl Chloride	ND	1.1	0.53	1.06	
p/m-Xylene	1.4	2.1	0.28	1.06	J
o-Xylene	ND	1.1	0.59	1.06	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.31	1.06	
Tert-Butyl Alcohol (TBA)	ND	21	5.5	1.06	
Diisopropyl Ether (DIPE)	ND	1.1	0.51	1.06	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.54	1.06	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.37	1.06	
Ethanol	ND	530	89	1.06	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 3 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	105	79-133	
1,2-Dichloroethane-d4	101	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-12-12.5	**13-07-0950-2-C**	**07/15/13 09:35**	**Soil**	**GC/MS PP**	**07/15/13**	**07/17/13 21:06**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	26	52	6.5	1.04	J
Benzene	2.6	1.0	0.13	1.04	
Bromobenzene	ND	1.0	0.22	1.04	
Bromochloromethane	ND	2.1	0.72	1.04	
Bromodichloromethane	ND	1.0	0.24	1.04	
Bromoform	ND	5.2	0.83	1.04	
Bromomethane	ND	21	9.8	1.04	
2-Butanone	5.7	21	3.9	1.04	J
n-Butylbenzene	ND	1.0	0.16	1.04	
sec-Butylbenzene	ND	1.0	0.60	1.04	
tert-Butylbenzene	ND	1.0	0.16	1.04	
Carbon Disulfide	0.36	10	0.32	1.04	J
Carbon Tetrachloride	ND	1.0	0.29	1.04	
Chlorobenzene	ND	1.0	0.23	1.04	
Chloroethane	ND	2.1	2.0	1.04	
Chloroform	ND	1.0	0.25	1.04	
Chloromethane	ND	21	0.72	1.04	
2-Chlorotoluene	ND	1.0	0.24	1.04	
4-Chlorotoluene	ND	1.0	0.22	1.04	
Dibromochloromethane	ND	2.1	0.59	1.04	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.04	
1,2-Dibromoethane	ND	1.0	0.27	1.04	
Dibromomethane	ND	1.0	0.81	1.04	
1,2-Dichlorobenzene	ND	1.0	0.24	1.04	
1,3-Dichlorobenzene	ND	1.0	0.18	1.04	
1,4-Dichlorobenzene	ND	1.0	0.23	1.04	
Dichlorodifluoromethane	ND	2.1	0.46	1.04	
1,1-Dichloroethane	ND	1.0	1.0	1.04	
1,2-Dichloroethane	ND	1.0	0.33	1.04	
1,1-Dichloroethene	ND	1.0	0.36	1.04	
c-1,2-Dichloroethene	ND	1.0	0.29	1.04	
t-1,2-Dichloroethene	ND	1.0	0.53	1.04	
1,2-Dichloropropane	ND	1.0	0.46	1.04	
1,3-Dichloropropane	ND	1.0	0.26	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.34	1.04	
1,1-Dichloropropene	ND	2.1	0.34	1.04	
c-1,3-Dichloropropene	ND	1.0	0.26	1.04	
t-1,3-Dichloropropene	ND	2.1	0.63	1.04	
Ethylbenzene	1.4	1.0	0.16	1.04	
2-Hexanone	ND	21	1.8	1.04	
Isopropylbenzene	ND	1.0	0.57	1.04	
p-Isopropyltoluene	ND	1.0	0.65	1.04	
Methylene Chloride	ND	10	1.4	1.04	
4-Methyl-2-Pentanone	ND	21	4.5	1.04	
Naphthalene	ND	10	0.85	1.04	
n-Propylbenzene	ND	2.1	0.52	1.04	
Styrene	ND	1.0	0.63	1.04	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.04	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.04	
Tetrachloroethene	4.7	1.0	0.22	1.04	
Toluene	2.6	1.0	0.54	1.04	
1,2,3-Trichlorobenzene	ND	2.1	0.95	1.04	
1,2,4-Trichlorobenzene	ND	2.1	0.32	1.04	
1,1,1-Trichloroethane	ND	1.0	0.23	1.04	
1,1,2-Trichloroethane	ND	1.0	0.99	1.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.37	1.04	
Trichloroethene	ND	2.1	0.31	1.04	
Trichlorofluoromethane	ND	10	0.39	1.04	
1,2,3-Trichloropropane	ND	2.1	0.71	1.04	
1,2,4-Trimethylbenzene	ND	2.1	0.61	1.04	
1,3,5-Trimethylbenzene	ND	2.1	0.57	1.04	
Vinyl Acetate	ND	10	4.9	1.04	
Vinyl Chloride	ND	1.0	0.52	1.04	
p/m-Xylene	0.93	2.1	0.28	1.04	J
o-Xylene	ND	1.0	0.58	1.04	
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.31	1.04	
Tert-Butyl Alcohol (TBA)	ND	21	5.4	1.04	
Diisopropyl Ether (DIPE)	ND	1.0	0.50	1.04	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.53	1.04	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.37	1.04	
Ethanol	ND	520	87	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 6 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-273**	**N/A**	**Soil**	**GC/MS PP**	**07/17/13**	**07/17/13 17:02**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR 1767		Page 9 of 9

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-1	**13-07-0950-3-A**	**07/15/13 00:00**	**Aqueous**	**GC/MS GGG**	**07/18/13**	**07/18/13 15:33**	**130718L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR 1767		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	106	80-134	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1064**	**N/A**	**Aqueous**	**GC/MS GGG**	**07/18/13**	**07/18/13 14:56**	**130718L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	0.23	1.0	0.23	1	J
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR 1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR 1767		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	99	80-126	
1,2-Dichloroethane-d4	105	80-134	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-0958-2	**Aqueous**	**GC/MS GGG**	**07/18/13**	**07/18/13 17:24**	**130718S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	50.03	100	50.72	101	70-130	1	0-20	
Benzene	ND	50.00	46.04	92	43.40	87	78-120	6	0-20	
Bromobenzene	ND	50.00	47.60	95	45.02	90	70-130	6	0-20	
Bromochloromethane	ND	50.00	51.96	104	49.26	99	70-130	5	0-20	
Bromodichloromethane	ND	50.00	46.55	93	44.21	88	70-130	5	0-20	
Bromoform	ND	50.00	49.23	98	48.26	97	70-130	2	0-20	
Bromomethane	ND	50.00	43.87	88	42.89	86	70-130	2	0-20	
2-Butanone	ND	50.00	56.15	112	56.42	113	70-130	0	0-20	
n-Butylbenzene	ND	50.00	51.22	102	47.87	96	70-130	7	0-25	
sec-Butylbenzene	ND	50.00	46.28	93	43.15	86	70-130	7	0-20	
tert-Butylbenzene	ND	50.00	49.10	98	45.27	91	70-130	8	0-20	
Carbon Disulfide	ND	50.00	43.20	86	40.26	81	70-130	7	0-20	
Carbon Tetrachloride	ND	50.00	45.35	91	41.92	84	69-139	8	0-20	
Chlorobenzene	ND	50.00	45.90	92	43.57	87	70-130	5	0-20	
Chloroethane	ND	50.00	57.26	115	53.10	106	70-130	8	0-20	
Chloroform	ND	50.00	48.90	98	46.58	93	70-130	5	0-20	
Chloromethane	ND	50.00	50.05	100	47.17	94	70-130	6	0-20	
2-Chlorotoluene	ND	50.00	45.68	91	42.79	86	70-130	7	0-20	
4-Chlorotoluene	ND	50.00	45.33	91	42.73	85	70-130	6	0-20	
Dibromochloromethane	ND	50.00	46.18	92	44.54	89	70-130	4	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	48.93	98	48.58	97	70-130	1	0-20	
1,2-Dibromoethane	ND	50.00	49.15	98	47.97	96	80-123	2	0-20	
Dibromomethane	ND	50.00	50.28	101	48.24	96	70-130	4	0-20	
1,2-Dichlorobenzene	ND	50.00	46.40	93	44.12	88	76-120	5	0-20	
1,3-Dichlorobenzene	ND	50.00	45.91	92	43.60	87	70-130	5	0-20	
1,4-Dichlorobenzene	ND	50.00	50.67	101	47.54	95	70-130	6	0-20	
Dichlorodifluoromethane	ND	50.00	61.55	123	57.61	115	70-130	7	0-20	
1,1-Dichloroethane	ND	50.00	47.49	95	44.71	89	70-130	6	0-20	
1,2-Dichloroethane	ND	50.00	49.36	99	48.01	96	76-130	3	0-20	
1,1-Dichloroethene	ND	50.00	49.58	99	46.16	92	70-130	7	0-27	
c-1,2-Dichloroethene	ND	50.00	49.94	100	47.47	95	70-130	5	0-20	
t-1,2-Dichloroethene	ND	50.00	50.08	100	46.87	94	70-130	7	0-20	
1,2-Dichloropropane	ND	50.00	48.31	97	45.84	92	70-130	5	0-25	
1,3-Dichloropropane	ND	50.00	47.90	96	45.93	92	70-130	4	0-20	
2,2-Dichloropropane	ND	50.00	53.39	107	46.06	92	70-130	15	0-20	
1,1-Dichloropropene	ND	50.00	51.39	103	47.62	95	70-130	8	0-20	
c-1,3-Dichloropropene	ND	50.00	50.43	101	47.42	95	70-130	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	50.00	45.51	91	43.23	86	70-130	5	0-20	
Ethylbenzene	ND	50.00	48.65	97	45.46	91	73-127	7	0-20	
2-Hexanone	ND	50.00	52.59	105	51.22	102	70-130	3	0-20	
Isopropylbenzene	ND	50.00	45.00	90	42.05	84	70-130	7	0-20	
p-Isopropyltoluene	ND	50.00	46.64	93	43.39	87	70-130	7	0-20	
Methylene Chloride	ND	50.00	52.66	105	50.45	101	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	50.00	53.46	107	53.39	107	70-130	0	0-20	
Naphthalene	ND	50.00	53.04	106	51.76	104	70-130	2	0-20	
n-Propylbenzene	ND	50.00	45.07	90	41.87	84	70-130	7	0-20	
Styrene	ND	50.00	47.90	96	44.58	89	70-130	7	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	45.61	91	43.02	86	70-130	6	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	53.02	106	51.69	103	70-130	3	0-20	
Tetrachloroethene	ND	50.00	35.72	71	33.25	67	70-130	7	0-20	3
Toluene	ND	50.00	48.80	98	45.76	92	72-126	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	49.92	100	47.67	95	70-130	5	0-20	
1,2,4-Trichlorobenzene	ND	50.00	49.04	98	46.90	94	70-130	4	0-20	
1,1,1-Trichloroethane	ND	50.00	48.83	98	45.50	91	70-130	7	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	51.84	104	48.73	97	70-130	6	0-20	
1,1,2-Trichloroethane	ND	50.00	48.65	97	47.54	95	70-130	2	0-20	
Trichloroethene	ND	50.00	46.54	93	43.45	87	74-122	7	0-20	
Trichlorofluoromethane	ND	50.00	53.32	107	49.84	100	70-130	7	0-20	
1,2,3-Trichloropropane	ND	50.00	52.31	105	50.99	102	70-130	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	49.30	99	46.07	92	70-130	7	0-20	
1,3,5-Trimethylbenzene	ND	50.00	50.65	101	47.16	94	70-130	7	0-20	
Vinyl Acetate	ND	50.00	67.37	135	63.08	126	70-130	7	0-20	3
Vinyl Chloride	ND	50.00	47.71	95	43.79	88	65-131	9	0-24	
p/m-Xylene	ND	100.0	92.25	92	85.93	86	70-130	7	0-20	
o-Xylene	ND	50.00	44.39	89	41.61	83	70-130	6	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	47.83	96	47.01	94	69-123	2	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	217.9	87	223.8	90	65-131	3	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	48.38	97	46.40	93	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	49.94	100	48.69	97	69-123	3	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	48.41	97	47.27	95	70-124	2	0-20	
Ethanol	ND	500.0	452.4	90	494.1	99	41-155	9	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-273	**Soil**	**GC/MS PP**	**07/17/13**	**07/17/13 14:59**	**130717L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	71.88	144	80.63	161	80-120	73-127	11	0-20	X
Benzene	50.00	48.62	97	50.44	101	80-120	73-127	4	0-20	
Bromobenzene	50.00	47.84	96	50.69	101	80-120	73-127	6	0-20	
Bromochloromethane	50.00	47.60	95	50.09	100	80-120	73-127	5	0-20	
Bromodichloromethane	50.00	51.64	103	53.22	106	80-120	73-127	3	0-20	
Bromoform	50.00	51.00	102	52.21	104	80-120	73-127	2	0-20	
Bromomethane	50.00	41.31	83	43.50	87	80-120	73-127	5	0-20	
2-Butanone	50.00	61.87	124	58.83	118	80-120	73-127	5	0-20	ME
n-Butylbenzene	50.00	52.16	104	51.90	104	77-123	69-131	0	0-25	
sec-Butylbenzene	50.00	46.47	93	47.85	96	80-120	73-127	3	0-20	
tert-Butylbenzene	50.00	45.52	91	48.13	96	80-120	73-127	6	0-20	
Carbon Disulfide	50.00	44.69	89	45.50	91	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	53.80	108	55.54	111	65-137	53-149	3	0-20	
Chlorobenzene	50.00	43.11	86	44.72	89	80-120	73-127	4	0-20	
Chloroethane	50.00	38.04	76	43.74	87	80-120	73-127	14	0-20	ME
Chloroform	50.00	49.29	99	49.16	98	80-120	73-127	0	0-20	
Chloromethane	50.00	38.52	77	43.24	86	80-120	73-127	12	0-20	ME
2-Chlorotoluene	50.00	46.64	93	47.75	95	80-120	73-127	2	0-20	
4-Chlorotoluene	50.00	45.74	91	46.84	94	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	47.62	95	50.01	100	80-120	73-127	5	0-20	
1,2-Dibromo-3-Chloropropane	50.00	50.04	100	50.37	101	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	48.52	97	50.87	102	80-120	73-127	5	0-20	
Dibromomethane	50.00	48.49	97	49.61	99	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	44.72	89	45.43	91	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	44.41	89	45.15	90	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	46.73	93	47.18	94	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	46.12	92	52.20	104	80-120	73-127	12	0-20	
1,1-Dichloroethane	50.00	46.64	93	47.49	95	80-120	73-127	2	0-20	
1,2-Dichloroethane	50.00	53.09	106	54.56	109	80-120	73-127	3	0-20	
1,1-Dichloroethene	50.00	46.09	92	45.75	91	68-128	58-138	1	0-20	
c-1,2-Dichloroethene	50.00	48.83	98	50.24	100	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	50.00	49.65	99	50.06	100	80-120	73-127	1	0-20	
1,2-Dichloropropane	50.00	48.80	98	49.41	99	79-115	73-121	1	0-25	
1,3-Dichloropropane	50.00	50.03	100	50.88	102	80-120	73-127	2	0-20	
2,2-Dichloropropane	50.00	54.17	108	54.82	110	80-120	73-127	1	0-20	
1,1-Dichloropropene	50.00	52.21	104	52.68	105	80-120	73-127	1	0-20	
c-1,3-Dichloropropene	50.00	54.14	108	56.25	113	80-120	73-127	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5035
Method: EPA 8260B

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	48.73	97	49.72	99	80-120	73-127	2	0-20	
Ethylbenzene	50.00	48.85	98	50.35	101	80-120	73-127	3	0-20	
2-Hexanone	50.00	50.56	101	54.26	109	80-120	73-127	7	0-20	
Isopropylbenzene	50.00	46.34	93	48.42	97	80-120	73-127	4	0-20	
p-Isopropyltoluene	50.00	46.79	94	46.67	93	80-120	73-127	0	0-20	
Methylene Chloride	50.00	46.25	93	48.06	96	80-120	73-127	4	0-20	
4-Methyl-2-Pentanone	50.00	48.79	98	50.19	100	80-120	73-127	3	0-20	
Naphthalene	50.00	52.39	105	51.35	103	80-120	73-127	2	0-20	
n-Propylbenzene	50.00	45.89	92	47.39	95	80-120	73-127	3	0-20	
Styrene	50.00	48.77	98	50.59	101	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	48.26	97	50.92	102	80-120	73-127	5	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.38	97	48.73	97	80-120	73-127	1	0-20	
Tetrachloroethene	50.00	46.36	93	47.94	96	80-120	73-127	3	0-20	
Toluene	50.00	48.20	96	50.21	100	80-120	73-127	4	0-20	
1,2,3-Trichlorobenzene	50.00	55.26	111	53.59	107	80-120	73-127	3	0-20	
1,2,4-Trichlorobenzene	50.00	57.06	114	55.70	111	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	50.00	52.63	105	52.40	105	80-120	73-127	0	0-20	
1,1,2-Trichloroethane	50.00	47.42	95	49.32	99	80-120	73-127	4	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.03	94	47.57	95	80-120	73-127	1	0-20	
Trichloroethene	50.00	49.34	99	50.91	102	80-120	73-127	3	0-20	
Trichlorofluoromethane	50.00	42.78	86	49.06	98	80-120	73-127	14	0-20	
1,2,3-Trichloropropane	50.00	50.85	102	52.37	105	80-120	73-127	3	0-20	
1,2,4-Trimethylbenzene	50.00	51.17	102	52.07	104	80-120	73-127	2	0-20	
1,3,5-Trimethylbenzene	50.00	52.46	105	54.00	108	80-120	73-127	3	0-20	
Vinyl Acetate	50.00	57.10	114	56.64	113	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	36.70	73	41.36	83	67-127	57-137	12	0-20	
p/m-Xylene	100.0	96.27	96	100.3	100	80-120	73-127	4	0-20	
o-Xylene	50.00	47.66	95	49.50	99	80-120	73-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	53.67	107	53.87	108	70-124	61-133	0	0-20	
Tert-Butyl Alcohol (TBA)	250.0	230.2	92	259.2	104	73-121	65-129	12	0-20	
Diisopropyl Ether (DIPE)	50.00	51.25	103	51.78	104	69-129	59-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	54.33	109	54.65	109	70-124	61-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	54.71	109	54.98	110	74-122	66-130	0	0-20	
Ethanol	500.0	425.5	85	473.1	95	51-135	37-149	11	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/15/13
1111 Broadway, FL 6TH	Work Order:	13-07-0950
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR 1767		Page 3 of 5

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1064	**Aqueous**	**GC/MS GGG**	**07/18/13 13:03**	**130718L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	66.99	134	70-130	60-140	ME
Benzene	50.00	46.87	94	70-130	60-140	
Bromobenzene	50.00	49.41	99	70-130	60-140	
Bromochloromethane	50.00	50.72	101	70-130	60-140	
Bromodichloromethane	50.00	47.15	94	70-130	60-140	
Bromoform	50.00	50.09	100	70-130	60-140	
Bromomethane	50.00	45.32	91	70-130	60-140	
2-Butanone	50.00	60.96	122	70-130	60-140	
n-Butylbenzene	50.00	54.56	109	77-123	69-131	
sec-Butylbenzene	50.00	49.03	98	70-130	60-140	
tert-Butylbenzene	50.00	50.15	100	70-130	60-140	
Carbon Disulfide	50.00	44.12	88	70-130	60-140	
Carbon Tetrachloride	50.00	47.99	96	66-138	54-150	
Chlorobenzene	50.00	47.35	95	70-130	60-140	
Chloroethane	50.00	54.53	109	70-130	60-140	
Chloroform	50.00	49.24	98	70-130	60-140	
Chloromethane	50.00	49.22	98	70-130	60-140	
2-Chlorotoluene	50.00	47.55	95	70-130	60-140	
4-Chlorotoluene	50.00	47.06	94	70-130	60-140	
Dibromochloromethane	50.00	47.78	96	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	48.11	96	70-130	60-140	
1,2-Dibromoethane	50.00	49.31	99	70-130	60-140	
Dibromomethane	50.00	50.08	100	70-130	60-140	
1,2-Dichlorobenzene	50.00	47.60	95	70-130	60-140	
1,3-Dichlorobenzene	50.00	47.84	96	70-130	60-140	
1,4-Dichlorobenzene	50.00	52.15	104	70-130	60-140	
Dichlorodifluoromethane	50.00	71.90	144	70-130	60-140	X
1,1-Dichloroethane	50.00	47.46	95	70-130	60-140	
1,2-Dichloroethane	50.00	49.27	99	80-129	72-137	
1,1-Dichloroethene	50.00	49.75	100	71-131	61-141	
c-1,2-Dichloroethene	50.00	50.36	101	70-130	60-140	
t-1,2-Dichloroethene	50.00	50.49	101	70-130	60-140	
1,2-Dichloropropane	50.00	48.52	97	79-115	73-121	
1,3-Dichloropropane	50.00	48.29	97	70-130	60-140	
2,2-Dichloropropane	50.00	62.14	124	70-130	60-140	
1,1-Dichloropropene	50.00	52.75	105	70-130	60-140	
c-1,3-Dichloropropene	50.00	52.31	105	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR 1767

Date Received: 07/15/13
Work Order: 13-07-0950
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	47.59	95	70-130	60-140	
Ethylbenzene	50.00	50.56	101	80-123	73-130	
2-Hexanone	50.00	55.11	110	70-130	60-140	
Isopropylbenzene	50.00	47.16	94	70-130	60-140	
p-Isopropyltoluene	50.00	49.15	98	70-130	60-140	
Methylene Chloride	50.00	52.42	105	70-130	60-140	
4-Methyl-2-Pentanone	50.00	51.89	104	70-130	60-140	
Naphthalene	50.00	52.34	105	70-130	60-140	
n-Propylbenzene	50.00	47.00	94	70-130	60-140	
Styrene	50.00	50.22	100	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	47.66	95	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	52.03	104	70-130	60-140	
Tetrachloroethene	50.00	39.25	79	70-130	60-140	
Toluene	50.00	49.69	99	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	52.01	104	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	51.78	104	70-130	60-140	
1,1,1-Trichloroethane	50.00	50.08	100	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	60.47	121	70-130	60-140	
1,1,2-Trichloroethane	50.00	48.66	97	70-130	60-140	
Trichloroethene	50.00	47.61	95	70-130	60-140	
Trichlorofluoromethane	50.00	55.66	111	70-130	60-140	
1,2,3-Trichloropropane	50.00	51.43	103	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	51.49	103	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	53.21	106	70-130	60-140	
Vinyl Acetate	50.00	72.93	146	70-130	60-140	X
Vinyl Chloride	50.00	47.15	94	70-136	59-147	
p/m-Xylene	100.0	95.77	96	70-130	60-140	
o-Xylene	50.00	45.71	91	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	46.54	93	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	243.0	97	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	48.07	96	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	50.36	101	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	49.44	99	67-133	56-144	
Ethanol	500.0	506.2	101	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 1
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-07-0950 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8260B	EPA 5035	849	GC/MS PP	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-07-0950 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
Other CA office locations: Concord and San Luis Obispo
For courier service / sample drop off information,
contact sales@calscience.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
13-07-0950

Date 7/15/13
Page 1 of 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland STATE: CA ZIP: 94607
TEL: 510-836-3034 E-MAIL: srehan@geosyntec.com; fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
P.O. NO.: WR1767
PROJECT CONTACT: Syed Rehan; Frances Mansfield
SAMPLER(S): (PRINT) J. Sneider

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF | GLOBAL ID | LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	SV-12-05	7/15/13	0920	S	4		X							X								
2	SV-12-12.5	↓	0935	S	4		X							X								
3	TB-1	↓	—	W	2		X							X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/15/13	Time: 1600
Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/15/13	Time: 17:40
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

11/01/12 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-07-0950

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants

DATE: 07/15/13

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.5 °C - 0.2 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑(3) TerraCores® ☑2 OZPJ

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 1307083 **Labeled/Checked by:** _____

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-07-1023

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/23/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: KP Chatsworth / WR1767
Work Order Number: 13-07-1023

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-07-1023 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 07/16/13. They were assigned to Work Order 13-07-1023.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with an immediate holding time (HT </= 15 minutes --40CFR-136.3 Table II footnote 4), is considered a "field" test and reported samples results are not flagged unless the analysis is performed beyond 24 hours of the time of collection.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Attn: Syed Rehan

Work Order: 13-07-1023
Project Name: KP Chatsworth / WR1767
PO Number:
Date Received: 07/16/13

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-2	13-07-1023-1	07/16/13 00:00	2	Aqueous
SV-14-05	13-07-1023-2	07/16/13 09:26	4	Soil
SV-14-05-DUP	13-07-1023-3	07/16/13 09:26	4	Soil
SV-13-05	13-07-1023-4	07/16/13 11:04	4	Soil
SV-15-05	13-07-1023-5	07/16/13 13:26	4	Soil
SV-17-05	13-07-1023-6	07/16/13 14:24	4	Soil
SV-17-15	13-07-1023-7	07/16/13 15:15	4	Soil
SV-16-05	13-07-1023-8	07/15/13 15:55	4	Soil

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-1023
Project Name: KP Chatsworth / WR1767
Received: 07/16/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-14-05 (13-07-1023-2)						
Acetone	20	J	6.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.5		1.1	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.7		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	13		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	3.1		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.2	J	0.29*	ug/kg	EPA 8260B	EPA 5035
SV-14-05-DUP (13-07-1023-3)						
Acetone	24	J	7.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.0		1.1	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.5		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	12		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.90	J	0.30*	ug/kg	EPA 8260B	EPA 5035
SV-13-05 (13-07-1023-4)						
Acetone	35	J	6.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	4.2		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.4	J	4.1*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.34	J	0.33*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.8		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	19		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	5.0		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.7	J	0.29*	ug/kg	EPA 8260B	EPA 5035
SV-15-05 (13-07-1023-5)						
Acetone	23	J	6.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.0		1.1	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.5		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	43		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.94	J	0.29*	ug/kg	EPA 8260B	EPA 5035
SV-17-05 (13-07-1023-6)						
Acetone	27	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.3		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.4	J	3.8*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.32	J	0.31*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		1.0	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	9.1		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	2.6		1.0	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.3	J	0.27*	ug/kg	EPA 8260B	EPA 5035

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-1023
Project Name: KP Chatsworth / WR1767
Received: 07/16/13

Attn: Syed Rehan

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SV-17-15 (13-07-1023-7)						
Acetone	23	J	5.8*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.5		0.94	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.3	J	3.5*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.57	J	0.29*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.7		0.94	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	15		0.94	ug/kg	EPA 8260B	EPA 5035
Toluene	3.0		0.94	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.25*	ug/kg	EPA 8260B	EPA 5035
SV-16-05 (13-07-1023-8)						
Acetone	25	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.9		0.97	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.1	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.0		0.97	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	9.4		0.97	ug/kg	EPA 8260B	EPA 5035
Toluene	3.4		0.97	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.58	J	0.57*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.4	J	0.26*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.56	J	0.54*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-14-05	**13-07-1023-2-C**	**07/16/13 09:26**	**Soil**	**GC/MS PP**	**07/16/13**	**07/17/13 21:59**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	20	54	6.7	1.08	J
Benzene	2.5	1.1	0.14	1.08	
Bromobenzene	ND	1.1	0.23	1.08	
Bromochloromethane	ND	2.2	0.75	1.08	
Bromodichloromethane	ND	1.1	0.25	1.08	
Bromoform	ND	5.4	0.86	1.08	
Bromomethane	ND	22	10	1.08	
2-Butanone	ND	22	4.1	1.08	
n-Butylbenzene	ND	1.1	0.17	1.08	
sec-Butylbenzene	ND	1.1	0.62	1.08	
tert-Butylbenzene	ND	1.1	0.16	1.08	
Carbon Disulfide	ND	11	0.33	1.08	
Carbon Tetrachloride	ND	1.1	0.31	1.08	
Chlorobenzene	ND	1.1	0.24	1.08	
Chloroethane	ND	2.2	2.0	1.08	
Chloroform	ND	1.1	0.26	1.08	
Chloromethane	ND	22	0.74	1.08	
2-Chlorotoluene	ND	1.1	0.25	1.08	
4-Chlorotoluene	ND	1.1	0.23	1.08	
Dibromochloromethane	ND	2.2	0.62	1.08	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.08	
1,2-Dibromoethane	ND	1.1	0.28	1.08	
Dibromomethane	ND	1.1	0.84	1.08	
1,2-Dichlorobenzene	ND	1.1	0.25	1.08	
1,3-Dichlorobenzene	ND	1.1	0.19	1.08	
1,4-Dichlorobenzene	ND	1.1	0.24	1.08	
Dichlorodifluoromethane	ND	2.2	0.48	1.08	
1,1-Dichloroethane	ND	1.1	1.1	1.08	
1,2-Dichloroethane	ND	1.1	0.34	1.08	
1,1-Dichloroethene	ND	1.1	0.37	1.08	
c-1,2-Dichloroethene	ND	1.1	0.30	1.08	
t-1,2-Dichloroethene	ND	1.1	0.55	1.08	
1,2-Dichloropropane	ND	1.1	0.47	1.08	
1,3-Dichloropropane	ND	1.1	0.27	1.08	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.08	
1,1-Dichloropropene	ND	2.2	0.35	1.08	
c-1,3-Dichloropropene	ND	1.1	0.27	1.08	
t-1,3-Dichloropropene	ND	2.2	0.65	1.08	
Ethylbenzene	1.7	1.1	0.16	1.08	
2-Hexanone	ND	22	1.9	1.08	
Isopropylbenzene	ND	1.1	0.59	1.08	
p-Isopropyltoluene	ND	1.1	0.68	1.08	
Methylene Chloride	ND	11	1.4	1.08	
4-Methyl-2-Pentanone	ND	22	4.7	1.08	
Naphthalene	ND	11	0.88	1.08	
n-Propylbenzene	ND	2.2	0.54	1.08	
Styrene	ND	1.1	0.65	1.08	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.08	
1,1,2,2-Tetrachloroethane	ND	2.2	0.37	1.08	
Tetrachloroethene	13	1.1	0.23	1.08	
Toluene	3.1	1.1	0.56	1.08	
1,2,3-Trichlorobenzene	ND	2.2	0.99	1.08	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.08	
1,1,1-Trichloroethane	ND	1.1	0.24	1.08	
1,1,2-Trichloroethane	ND	1.1	1.0	1.08	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.08	
Trichloroethene	ND	2.2	0.32	1.08	
Trichlorofluoromethane	ND	11	0.41	1.08	
1,2,3-Trichloropropane	ND	2.2	0.74	1.08	
1,2,4-Trimethylbenzene	ND	2.2	0.63	1.08	
1,3,5-Trimethylbenzene	ND	2.2	0.59	1.08	
Vinyl Acetate	ND	11	5.1	1.08	
Vinyl Chloride	ND	1.1	0.54	1.08	
p/m-Xylene	1.2	2.2	0.29	1.08	J
o-Xylene	ND	1.1	0.60	1.08	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.08	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.08	
Diisopropyl Ether (DIPE)	ND	1.1	0.52	1.08	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.08	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.08	
Ethanol	ND	540	90	1.08	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 3 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-14-05-DUP	**13-07-1023-3-C**	**07/16/13 09:26**	**Soil**	**GC/MS PP**	**07/16/13**	**07/17/13 22:25**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	24	56	7.1	1.13	J
Benzene	2.0	1.1	0.15	1.13	
Bromobenzene	ND	1.1	0.24	1.13	
Bromochloromethane	ND	2.3	0.78	1.13	
Bromodichloromethane	ND	1.1	0.26	1.13	
Bromoform	ND	5.6	0.90	1.13	
Bromomethane	ND	23	11	1.13	
2-Butanone	ND	23	4.3	1.13	
n-Butylbenzene	ND	1.1	0.18	1.13	
sec-Butylbenzene	ND	1.1	0.65	1.13	
tert-Butylbenzene	ND	1.1	0.17	1.13	
Carbon Disulfide	ND	11	0.35	1.13	
Carbon Tetrachloride	ND	1.1	0.32	1.13	
Chlorobenzene	ND	1.1	0.25	1.13	
Chloroethane	ND	2.3	2.1	1.13	
Chloroform	ND	1.1	0.27	1.13	
Chloromethane	ND	23	0.78	1.13	
2-Chlorotoluene	ND	1.1	0.26	1.13	
4-Chlorotoluene	ND	1.1	0.24	1.13	
Dibromochloromethane	ND	2.3	0.64	1.13	
1,2-Dibromo-3-Chloropropane	ND	5.6	2.0	1.13	
1,2-Dibromoethane	ND	1.1	0.29	1.13	
Dibromomethane	ND	1.1	0.88	1.13	
1,2-Dichlorobenzene	ND	1.1	0.26	1.13	
1,3-Dichlorobenzene	ND	1.1	0.20	1.13	
1,4-Dichlorobenzene	ND	1.1	0.25	1.13	
Dichlorodifluoromethane	ND	2.3	0.50	1.13	
1,1-Dichloroethane	ND	1.1	1.1	1.13	
1,2-Dichloroethane	ND	1.1	0.35	1.13	
1,1-Dichloroethene	ND	1.1	0.39	1.13	
c-1,2-Dichloroethene	ND	1.1	0.32	1.13	
t-1,2-Dichloroethene	ND	1.1	0.57	1.13	
1,2-Dichloropropane	ND	1.1	0.50	1.13	
1,3-Dichloropropane	ND	1.1	0.29	1.13	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.6	0.37	1.13	
1,1-Dichloropropene	ND	2.3	0.37	1.13	
c-1,3-Dichloropropene	ND	1.1	0.29	1.13	
t-1,3-Dichloropropene	ND	2.3	0.68	1.13	
Ethylbenzene	1.5	1.1	0.17	1.13	
2-Hexanone	ND	23	2.0	1.13	
Isopropylbenzene	ND	1.1	0.62	1.13	
p-Isopropyltoluene	ND	1.1	0.71	1.13	
Methylene Chloride	ND	11	1.5	1.13	
4-Methyl-2-Pentanone	ND	23	4.9	1.13	
Naphthalene	ND	11	0.92	1.13	
n-Propylbenzene	ND	2.3	0.57	1.13	
Styrene	ND	1.1	0.68	1.13	
1,1,1,2-Tetrachloroethane	ND	1.1	0.27	1.13	
1,1,2,2-Tetrachloroethane	ND	2.3	0.39	1.13	
Tetrachloroethene	12	1.1	0.24	1.13	
Toluene	2.7	1.1	0.58	1.13	
1,2,3-Trichlorobenzene	ND	2.3	1.0	1.13	
1,2,4-Trichlorobenzene	ND	2.3	0.35	1.13	
1,1,1-Trichloroethane	ND	1.1	0.25	1.13	
1,1,2-Trichloroethane	ND	1.1	1.1	1.13	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.40	1.13	
Trichloroethene	ND	2.3	0.34	1.13	
Trichlorofluoromethane	ND	11	0.42	1.13	
1,2,3-Trichloropropane	ND	2.3	0.77	1.13	
1,2,4-Trimethylbenzene	ND	2.3	0.66	1.13	
1,3,5-Trimethylbenzene	ND	2.3	0.62	1.13	
Vinyl Acetate	ND	11	5.4	1.13	
Vinyl Chloride	ND	1.1	0.57	1.13	
p/m-Xylene	0.90	2.3	0.30	1.13	J
o-Xylene	ND	1.1	0.63	1.13	
Methyl-t-Butyl Ether (MTBE)	ND	2.3	0.33	1.13	
Tert-Butyl Alcohol (TBA)	ND	23	5.8	1.13	
Diisopropyl Ether (DIPE)	ND	1.1	0.55	1.13	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.57	1.13	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.40	1.13	
Ethanol	ND	560	94	1.13	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 6 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-13-05	**13-07-1023-4-C**	**07/16/13 11:04**	**Soil**	**GC/MS PP**	**07/16/13**	**07/17/13 22:52**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	35	54	6.7	1.08	J
Benzene	4.2	1.1	0.14	1.08	
Bromobenzene	ND	1.1	0.23	1.08	
Bromochloromethane	ND	2.2	0.75	1.08	
Bromodichloromethane	ND	1.1	0.25	1.08	
Bromoform	ND	5.4	0.86	1.08	
Bromomethane	ND	22	10	1.08	
2-Butanone	5.4	22	4.1	1.08	J
n-Butylbenzene	ND	1.1	0.17	1.08	
sec-Butylbenzene	ND	1.1	0.62	1.08	
tert-Butylbenzene	ND	1.1	0.16	1.08	
Carbon Disulfide	0.34	11	0.33	1.08	J
Carbon Tetrachloride	ND	1.1	0.31	1.08	
Chlorobenzene	ND	1.1	0.24	1.08	
Chloroethane	ND	2.2	2.0	1.08	
Chloroform	ND	1.1	0.26	1.08	
Chloromethane	ND	22	0.74	1.08	
2-Chlorotoluene	ND	1.1	0.25	1.08	
4-Chlorotoluene	ND	1.1	0.23	1.08	
Dibromochloromethane	ND	2.2	0.62	1.08	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.08	
1,2-Dibromoethane	ND	1.1	0.28	1.08	
Dibromomethane	ND	1.1	0.84	1.08	
1,2-Dichlorobenzene	ND	1.1	0.25	1.08	
1,3-Dichlorobenzene	ND	1.1	0.19	1.08	
1,4-Dichlorobenzene	ND	1.1	0.24	1.08	
Dichlorodifluoromethane	ND	2.2	0.48	1.08	
1,1-Dichloroethane	ND	1.1	1.1	1.08	
1,2-Dichloroethane	ND	1.1	0.34	1.08	
1,1-Dichloroethene	ND	1.1	0.37	1.08	
c-1,2-Dichloroethene	ND	1.1	0.30	1.08	
t-1,2-Dichloroethene	ND	1.1	0.55	1.08	
1,2-Dichloropropane	ND	1.1	0.47	1.08	
1,3-Dichloropropane	ND	1.1	0.27	1.08	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.08	
1,1-Dichloropropene	ND	2.2	0.35	1.08	
c-1,3-Dichloropropene	ND	1.1	0.27	1.08	
t-1,3-Dichloropropene	ND	2.2	0.65	1.08	
Ethylbenzene	1.8	1.1	0.16	1.08	
2-Hexanone	ND	22	1.9	1.08	
Isopropylbenzene	ND	1.1	0.59	1.08	
p-Isopropyltoluene	ND	1.1	0.68	1.08	
Methylene Chloride	ND	11	1.4	1.08	
4-Methyl-2-Pentanone	ND	22	4.7	1.08	
Naphthalene	ND	11	0.88	1.08	
n-Propylbenzene	ND	2.2	0.54	1.08	
Styrene	ND	1.1	0.65	1.08	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.08	
1,1,2,2-Tetrachloroethane	ND	2.2	0.37	1.08	
Tetrachloroethene	19	1.1	0.23	1.08	
Toluene	5.0	1.1	0.56	1.08	
1,2,3-Trichlorobenzene	ND	2.2	0.99	1.08	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.08	
1,1,1-Trichloroethane	ND	1.1	0.24	1.08	
1,1,2-Trichloroethane	ND	1.1	1.0	1.08	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.08	
Trichloroethene	ND	2.2	0.32	1.08	
Trichlorofluoromethane	ND	11	0.41	1.08	
1,2,3-Trichloropropane	ND	2.2	0.74	1.08	
1,2,4-Trimethylbenzene	ND	2.2	0.63	1.08	
1,3,5-Trimethylbenzene	ND	2.2	0.59	1.08	
Vinyl Acetate	ND	11	5.1	1.08	
Vinyl Chloride	ND	1.1	0.54	1.08	
p/m-Xylene	1.7	2.2	0.29	1.08	J
o-Xylene	ND	1.1	0.60	1.08	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.08	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.08	
Diisopropyl Ether (DIPE)	ND	1.1	0.52	1.08	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.08	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.08	
Ethanol	ND	540	90	1.08	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 9 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-15-05	**13-07-1023-5-C**	**07/16/13 13:26**	**Soil**	**GC/MS PP**	**07/16/13**	**07/17/13 23:18**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	23	54	6.8	1.09	J
Benzene	2.0	1.1	0.14	1.09	
Bromobenzene	ND	1.1	0.23	1.09	
Bromochloromethane	ND	2.2	0.75	1.09	
Bromodichloromethane	ND	1.1	0.25	1.09	
Bromoform	ND	5.4	0.87	1.09	
Bromomethane	ND	22	10	1.09	
2-Butanone	ND	22	4.1	1.09	
n-Butylbenzene	ND	1.1	0.17	1.09	
sec-Butylbenzene	ND	1.1	0.63	1.09	
tert-Butylbenzene	ND	1.1	0.16	1.09	
Carbon Disulfide	ND	11	0.33	1.09	
Carbon Tetrachloride	ND	1.1	0.31	1.09	
Chlorobenzene	ND	1.1	0.24	1.09	
Chloroethane	ND	2.2	2.0	1.09	
Chloroform	ND	1.1	0.26	1.09	
Chloromethane	ND	22	0.75	1.09	
2-Chlorotoluene	ND	1.1	0.25	1.09	
4-Chlorotoluene	ND	1.1	0.23	1.09	
Dibromochloromethane	ND	2.2	0.62	1.09	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.09	
1,2-Dibromoethane	ND	1.1	0.28	1.09	
Dibromomethane	ND	1.1	0.84	1.09	
1,2-Dichlorobenzene	ND	1.1	0.25	1.09	
1,3-Dichlorobenzene	ND	1.1	0.19	1.09	
1,4-Dichlorobenzene	ND	1.1	0.24	1.09	
Dichlorodifluoromethane	ND	2.2	0.48	1.09	
1,1-Dichloroethane	ND	1.1	1.1	1.09	
1,2-Dichloroethane	ND	1.1	0.34	1.09	
1,1-Dichloroethene	ND	1.1	0.38	1.09	
c-1,2-Dichloroethene	ND	1.1	0.30	1.09	
t-1,2-Dichloroethene	ND	1.1	0.55	1.09	
1,2-Dichloropropane	ND	1.1	0.48	1.09	
1,3-Dichloropropane	ND	1.1	0.28	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.09	
1,1-Dichloropropene	ND	2.2	0.36	1.09	
c-1,3-Dichloropropene	ND	1.1	0.28	1.09	
t-1,3-Dichloropropene	ND	2.2	0.66	1.09	
Ethylbenzene	1.5	1.1	0.17	1.09	
2-Hexanone	ND	22	1.9	1.09	
Isopropylbenzene	ND	1.1	0.60	1.09	
p-Isopropyltoluene	ND	1.1	0.69	1.09	
Methylene Chloride	ND	11	1.5	1.09	
4-Methyl-2-Pentanone	ND	22	4.7	1.09	
Naphthalene	ND	11	0.89	1.09	
n-Propylbenzene	ND	2.2	0.55	1.09	
Styrene	ND	1.1	0.66	1.09	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.09	
1,1,2,2-Tetrachloroethane	ND	2.2	0.38	1.09	
Tetrachloroethene	43	1.1	0.23	1.09	
Toluene	2.7	1.1	0.56	1.09	
1,2,3-Trichlorobenzene	ND	2.2	1.0	1.09	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.09	
1,1,1-Trichloroethane	ND	1.1	0.25	1.09	
1,1,2-Trichloroethane	ND	1.1	1.0	1.09	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.09	
Trichloroethene	ND	2.2	0.33	1.09	
Trichlorofluoromethane	ND	11	0.41	1.09	
1,2,3-Trichloropropane	ND	2.2	0.75	1.09	
1,2,4-Trimethylbenzene	ND	2.2	0.64	1.09	
1,3,5-Trimethylbenzene	ND	2.2	0.60	1.09	
Vinyl Acetate	ND	11	5.2	1.09	
Vinyl Chloride	ND	1.1	0.55	1.09	
p/m-Xylene	0.94	2.2	0.29	1.09	J
o-Xylene	ND	1.1	0.61	1.09	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.09	
Tert-Butyl Alcohol (TBA)	ND	22	5.6	1.09	
Diisopropyl Ether (DIPE)	ND	1.1	0.53	1.09	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.09	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.09	
Ethanol	ND	540	91	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 12 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	114	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-17-05	**13-07-1023-6-C**	**07/16/13 14:24**	**Soil**	**GC/MS PP**	**07/16/13**	**07/18/13 17:17**	**130718L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	27	50	6.2	1	J
Benzene	2.3	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	4.4	20	3.8	1	J
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	0.32	10	0.31	1	J
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	1.4	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	9.1	1.0	0.21	1	
Toluene	2.6	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	1.3	2.0	0.27	1	J
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 15 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-17-15	**13-07-1023-7-C**	**07/16/13 15:15**	**Soil**	**GC/MS PP**	**07/16/13**	**07/18/13 00:11**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	23	47	5.8	0.936	J
Benzene	3.5	0.94	0.12	0.936	
Bromobenzene	ND	0.94	0.20	0.936	
Bromochloromethane	ND	1.9	0.65	0.936	
Bromodichloromethane	ND	0.94	0.22	0.936	
Bromoform	ND	4.7	0.74	0.936	
Bromomethane	ND	19	8.8	0.936	
2-Butanone	6.3	19	3.5	0.936	J
n-Butylbenzene	ND	0.94	0.15	0.936	
sec-Butylbenzene	ND	0.94	0.54	0.936	
tert-Butylbenzene	ND	0.94	0.14	0.936	
Carbon Disulfide	0.57	9.4	0.29	0.936	J
Carbon Tetrachloride	ND	0.94	0.26	0.936	
Chlorobenzene	ND	0.94	0.21	0.936	
Chloroethane	ND	1.9	1.8	0.936	
Chloroform	ND	0.94	0.22	0.936	
Chloromethane	ND	19	0.64	0.936	
2-Chlorotoluene	ND	0.94	0.22	0.936	
4-Chlorotoluene	ND	0.94	0.20	0.936	
Dibromochloromethane	ND	1.9	0.53	0.936	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.6	0.936	
1,2-Dibromoethane	ND	0.94	0.24	0.936	
Dibromomethane	ND	0.94	0.73	0.936	
1,2-Dichlorobenzene	ND	0.94	0.21	0.936	
1,3-Dichlorobenzene	ND	0.94	0.16	0.936	
1,4-Dichlorobenzene	ND	0.94	0.21	0.936	
Dichlorodifluoromethane	ND	1.9	0.42	0.936	
1,1-Dichloroethane	ND	0.94	0.94	0.936	
1,2-Dichloroethane	ND	0.94	0.29	0.936	
1,1-Dichloroethene	ND	0.94	0.32	0.936	
c-1,2-Dichloroethene	ND	0.94	0.26	0.936	
t-1,2-Dichloroethene	ND	0.94	0.47	0.936	
1,2-Dichloropropane	ND	0.94	0.41	0.936	
1,3-Dichloropropane	ND	0.94	0.24	0.936	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.7	0.31	0.936	
1,1-Dichloropropene	ND	1.9	0.31	0.936	
c-1,3-Dichloropropene	ND	0.94	0.24	0.936	
t-1,3-Dichloropropene	ND	1.9	0.57	0.936	
Ethylbenzene	1.7	0.94	0.14	0.936	
2-Hexanone	ND	19	1.6	0.936	
Isopropylbenzene	ND	0.94	0.51	0.936	
p-Isopropyltoluene	ND	0.94	0.59	0.936	
Methylene Chloride	ND	9.4	1.3	0.936	
4-Methyl-2-Pentanone	ND	19	4.0	0.936	
Naphthalene	ND	9.4	0.76	0.936	
n-Propylbenzene	ND	1.9	0.47	0.936	
Styrene	ND	0.94	0.57	0.936	
1,1,1,2-Tetrachloroethane	ND	0.94	0.22	0.936	
1,1,2,2-Tetrachloroethane	ND	1.9	0.32	0.936	
Tetrachloroethene	15	0.94	0.20	0.936	
Toluene	3.0	0.94	0.48	0.936	
1,2,3-Trichlorobenzene	ND	1.9	0.85	0.936	
1,2,4-Trichlorobenzene	ND	1.9	0.29	0.936	
1,1,1-Trichloroethane	ND	0.94	0.21	0.936	
1,1,2-Trichloroethane	ND	0.94	0.89	0.936	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.4	0.33	0.936	
Trichloroethene	ND	1.9	0.28	0.936	
Trichlorofluoromethane	ND	9.4	0.35	0.936	
1,2,3-Trichloropropane	ND	1.9	0.64	0.936	
1,2,4-Trimethylbenzene	ND	1.9	0.55	0.936	
1,3,5-Trimethylbenzene	ND	1.9	0.51	0.936	
Vinyl Acetate	ND	9.4	4.4	0.936	
Vinyl Chloride	ND	0.94	0.47	0.936	
p/m-Xylene	1.0	1.9	0.25	0.936	J
o-Xylene	ND	0.94	0.52	0.936	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.936	
Tert-Butyl Alcohol (TBA)	ND	19	4.8	0.936	
Diisopropyl Ether (DIPE)	ND	0.94	0.45	0.936	
Ethyl-t-Butyl Ether (ETBE)	ND	0.94	0.47	0.936	
Tert-Amyl-Methyl Ether (TAME)	ND	0.94	0.33	0.936	
Ethanol	ND	470	78	0.936	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/16/13
1111 Broadway, FL 6TH		Work Order:	13-07-1023
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 18 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SV-16-05	**13-07-1023-8-C**	**07/15/13 15:55**	**Soil**	**GC/MS PP**	**07/15/13**	**07/18/13 00:37**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	25	49	6.1	0.971	J
Benzene	2.9	0.97	0.13	0.971	
Bromobenzene	ND	0.97	0.20	0.971	
Bromochloromethane	ND	1.9	0.67	0.971	
Bromodichloromethane	ND	0.97	0.23	0.971	
Bromoform	ND	4.9	0.77	0.971	
Bromomethane	ND	19	9.2	0.971	
2-Butanone	5.1	19	3.7	0.971	J
n-Butylbenzene	ND	0.97	0.15	0.971	
sec-Butylbenzene	ND	0.97	0.56	0.971	
tert-Butylbenzene	ND	0.97	0.15	0.971	
Carbon Disulfide	ND	9.7	0.30	0.971	
Carbon Tetrachloride	ND	0.97	0.27	0.971	
Chlorobenzene	ND	0.97	0.22	0.971	
Chloroethane	ND	1.9	1.8	0.971	
Chloroform	ND	0.97	0.23	0.971	
Chloromethane	ND	19	0.67	0.971	
2-Chlorotoluene	ND	0.97	0.22	0.971	
4-Chlorotoluene	ND	0.97	0.21	0.971	
Dibromochloromethane	ND	1.9	0.55	0.971	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.971	
1,2-Dibromoethane	ND	0.97	0.25	0.971	
Dibromomethane	ND	0.97	0.75	0.971	
1,2-Dichlorobenzene	ND	0.97	0.22	0.971	
1,3-Dichlorobenzene	ND	0.97	0.17	0.971	
1,4-Dichlorobenzene	ND	0.97	0.22	0.971	
Dichlorodifluoromethane	ND	1.9	0.43	0.971	
1,1-Dichloroethane	ND	0.97	0.97	0.971	
1,2-Dichloroethane	ND	0.97	0.30	0.971	
1,1-Dichloroethene	ND	0.97	0.34	0.971	
c-1,2-Dichloroethene	ND	0.97	0.27	0.971	
t-1,2-Dichloroethene	ND	0.97	0.49	0.971	
1,2-Dichloropropane	ND	0.97	0.43	0.971	
1,3-Dichloropropane	ND	0.97	0.25	0.971	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.971	
1,1-Dichloropropene	ND	1.9	0.32	0.971	
c-1,3-Dichloropropene	ND	0.97	0.25	0.971	
t-1,3-Dichloropropene	ND	1.9	0.59	0.971	
Ethylbenzene	2.0	0.97	0.15	0.971	
2-Hexanone	ND	19	1.7	0.971	
Isopropylbenzene	ND	0.97	0.53	0.971	
p-Isopropyltoluene	ND	0.97	0.61	0.971	
Methylene Chloride	ND	9.7	1.3	0.971	
4-Methyl-2-Pentanone	ND	19	4.2	0.971	
Naphthalene	ND	9.7	0.79	0.971	
n-Propylbenzene	ND	1.9	0.49	0.971	
Styrene	ND	0.97	0.59	0.971	
1,1,1,2-Tetrachloroethane	ND	0.97	0.23	0.971	
1,1,2,2-Tetrachloroethane	ND	1.9	0.34	0.971	
Tetrachloroethene	9.4	0.97	0.20	0.971	
Toluene	3.4	0.97	0.50	0.971	
1,2,3-Trichlorobenzene	ND	1.9	0.89	0.971	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.971	
1,1,1-Trichloroethane	ND	0.97	0.22	0.971	
1,1,2-Trichloroethane	ND	0.97	0.92	0.971	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	0.34	0.971	
Trichloroethene	ND	1.9	0.29	0.971	
Trichlorofluoromethane	ND	9.7	0.36	0.971	
1,2,3-Trichloropropane	ND	1.9	0.67	0.971	
1,2,4-Trimethylbenzene	0.58	1.9	0.57	0.971	J
1,3,5-Trimethylbenzene	ND	1.9	0.53	0.971	
Vinyl Acetate	ND	9.7	4.6	0.971	
Vinyl Chloride	ND	0.97	0.49	0.971	
p/m-Xylene	1.4	1.9	0.26	0.971	J
o-Xylene	0.56	0.97	0.54	0.971	J
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.29	0.971	
Tert-Butyl Alcohol (TBA)	ND	19	5.0	0.971	
Diisopropyl Ether (DIPE)	ND	0.97	0.47	0.971	
Ethyl-t-Butyl Ether (ETBE)	ND	0.97	0.49	0.971	
Tert-Amyl-Methyl Ether (TAME)	ND	0.97	0.34	0.971	
Ethanol	ND	490	81	0.971	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 21 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	124	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-273**	**N/A**	**Soil**	**GC/MS PP**	**07/17/13**	**07/17/13 17:02**	**130717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 24 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	101	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-274**	**N/A**	**Soil**	**GC/MS PP**	**07/18/13**	**07/18/13 16:42**	**130718L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/16/13
1111 Broadway, FL 6TH		Work Order:	13-07-1023
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 27 of 27

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	111	71-155	
Toluene-d8	103	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-2	**13-07-1023-1-A**	**07/16/13 00:00**	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 21:55**	**130719L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	107	80-126	
1,2-Dichloroethane-d4	105	80-134	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1066**	**N/A**	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 16:21**	**130719L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	0.47	10	0.41	1	J
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	107	80-126	
1,2-Dichloroethane-d4	105	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1038-4	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 17:37**	**130719S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	48.52	97	49.20	98	70-130	1	0-20	
Benzene	ND	50.00	44.38	89	42.36	85	78-120	5	0-20	
Bromobenzene	ND	50.00	48.54	97	45.72	91	70-130	6	0-20	
Bromochloromethane	ND	50.00	52.00	104	48.36	97	70-130	7	0-20	
Bromodichloromethane	ND	50.00	45.31	91	44.01	88	70-130	3	0-20	
Bromoform	ND	50.00	47.76	96	47.32	95	70-130	1	0-20	
Bromomethane	ND	50.00	28.15	56	35.51	71	70-130	23	0-20	3,4
2-Butanone	ND	50.00	52.62	105	51.86	104	70-130	1	0-20	
n-Butylbenzene	ND	50.00	51.56	103	48.93	98	70-130	5	0-25	
sec-Butylbenzene	ND	50.00	47.13	94	44.74	89	70-130	5	0-20	
tert-Butylbenzene	ND	50.00	49.95	100	47.31	95	70-130	5	0-20	
Carbon Disulfide	ND	50.00	44.78	90	40.88	82	70-130	9	0-20	
Carbon Tetrachloride	ND	50.00	45.85	92	42.32	85	69-139	8	0-20	
Chlorobenzene	ND	50.00	46.11	92	43.73	87	70-130	5	0-20	
Chloroethane	ND	50.00	57.65	115	53.45	107	70-130	8	0-20	
Chloroform	ND	50.00	48.53	97	45.63	91	70-130	6	0-20	
Chloromethane	ND	50.00	47.91	96	47.17	94	70-130	2	0-20	
2-Chlorotoluene	ND	50.00	44.90	90	42.09	84	70-130	6	0-20	
4-Chlorotoluene	ND	50.00	44.36	89	42.08	84	70-130	5	0-20	
Dibromochloromethane	ND	50.00	45.57	91	44.36	89	70-130	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	45.29	91	45.46	91	70-130	0	0-20	
1,2-Dibromoethane	ND	50.00	48.32	97	47.75	96	80-123	1	0-20	
Dibromomethane	ND	50.00	48.67	97	47.70	95	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	46.46	93	44.55	89	76-120	4	0-20	
1,3-Dichlorobenzene	ND	50.00	46.36	93	43.99	88	70-130	5	0-20	
1,4-Dichlorobenzene	ND	50.00	50.09	100	48.42	97	70-130	3	0-20	
Dichlorodifluoromethane	ND	50.00	60.81	122	56.04	112	70-130	8	0-20	
1,1-Dichloroethane	ND	50.00	47.87	96	44.99	90	70-130	6	0-20	
1,2-Dichloroethane	ND	50.00	49.51	99	48.68	97	76-130	2	0-20	
1,1-Dichloroethene	ND	50.00	53.76	108	49.33	99	70-130	9	0-27	
c-1,2-Dichloroethene	ND	50.00	49.51	99	46.71	93	70-130	6	0-20	
t-1,2-Dichloroethene	ND	50.00	50.57	101	46.95	94	70-130	7	0-20	
1,2-Dichloropropane	ND	50.00	48.05	96	45.96	92	70-130	4	0-25	
1,3-Dichloropropane	ND	50.00	45.84	92	44.96	90	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	63.06	126	55.71	111	70-130	12	0-20	
1,1-Dichloropropene	ND	50.00	51.57	103	47.65	95	70-130	8	0-20	
c-1,3-Dichloropropene	ND	50.00	49.59	99	47.68	95	70-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	50.00	44.49	89	42.94	86	70-130	4	0-20	
Ethylbenzene	ND	50.00	48.09	96	44.88	90	73-127	7	0-20	
2-Hexanone	ND	50.00	50.32	101	49.79	100	70-130	1	0-20	
Isopropylbenzene	ND	50.00	45.89	92	43.06	86	70-130	6	0-20	
p-Isopropyltoluene	ND	50.00	47.38	95	44.73	89	70-130	6	0-20	
Methylene Chloride	ND	50.00	51.80	104	49.54	99	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	50.00	52.47	105	51.86	104	70-130	1	0-20	
Naphthalene	ND	50.00	52.67	105	51.78	104	70-130	2	0-20	
n-Propylbenzene	ND	50.00	44.79	90	41.83	84	70-130	7	0-20	
Styrene	ND	50.00	37.94	76	35.10	70	70-130	8	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	44.94	90	42.91	86	70-130	5	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.71	105	52.53	105	70-130	0	0-20	
Tetrachloroethene	ND	50.00	33.51	67	30.78	62	70-130	8	0-20	3
Toluene	ND	50.00	47.75	96	44.87	90	72-126	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	50.67	101	49.32	99	70-130	3	0-20	
1,2,4-Trichlorobenzene	ND	50.00	50.62	101	49.46	99	70-130	2	0-20	
1,1,1-Trichloroethane	ND	50.00	48.39	97	45.06	90	70-130	7	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	54.37	109	50.64	101	70-130	7	0-20	
1,1,2-Trichloroethane	ND	50.00	46.80	94	45.35	91	70-130	3	0-20	
Trichloroethene	ND	50.00	44.78	90	41.73	83	74-122	7	0-20	
Trichlorofluoromethane	ND	50.00	57.38	115	53.09	106	70-130	8	0-20	
1,2,3-Trichloropropane	ND	50.00	50.71	101	50.04	100	70-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	49.30	99	46.84	94	70-130	5	0-20	
1,3,5-Trimethylbenzene	ND	50.00	50.86	102	47.80	96	70-130	6	0-20	
Vinyl Acetate	ND	50.00	55.81	112	52.29	105	70-130	7	0-20	
Vinyl Chloride	ND	50.00	49.46	99	45.31	91	65-131	9	0-24	
p/m-Xylene	ND	100.0	91.04	91	85.43	85	70-130	6	0-20	
o-Xylene	ND	50.00	43.04	86	40.95	82	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	45.82	92	44.59	89	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	245.8	98	249.3	100	65-131	1	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	48.14	96	46.20	92	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	50.03	100	48.25	96	69-123	4	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	44.52	89	43.67	87	70-124	2	0-20	
Ethanol	ND	500.0	554.6	111	552.0	110	41-155	0	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-273	**Soil**	**GC/MS PP**	**07/17/13**	**07/17/13 14:59**	**130717L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	71.88	144	80.63	161	80-120	73-127	11	0-20	X
Benzene	50.00	48.62	97	50.44	101	80-120	73-127	4	0-20	
Bromobenzene	50.00	47.84	96	50.69	101	80-120	73-127	6	0-20	
Bromochloromethane	50.00	47.60	95	50.09	100	80-120	73-127	5	0-20	
Bromodichloromethane	50.00	51.64	103	53.22	106	80-120	73-127	3	0-20	
Bromoform	50.00	51.00	102	52.21	104	80-120	73-127	2	0-20	
Bromomethane	50.00	41.31	83	43.50	87	80-120	73-127	5	0-20	
2-Butanone	50.00	61.87	124	58.83	118	80-120	73-127	5	0-20	ME
n-Butylbenzene	50.00	52.16	104	51.90	104	77-123	69-131	0	0-25	
sec-Butylbenzene	50.00	46.47	93	47.85	96	80-120	73-127	3	0-20	
tert-Butylbenzene	50.00	45.52	91	48.13	96	80-120	73-127	6	0-20	
Carbon Disulfide	50.00	44.69	89	45.50	91	80-120	73-127	2	0-20	
Carbon Tetrachloride	50.00	53.80	108	55.54	111	65-137	53-149	3	0-20	
Chlorobenzene	50.00	43.11	86	44.72	89	80-120	73-127	4	0-20	
Chloroethane	50.00	38.04	76	43.74	87	80-120	73-127	14	0-20	ME
Chloroform	50.00	49.29	99	49.16	98	80-120	73-127	0	0-20	
Chloromethane	50.00	38.52	77	43.24	86	80-120	73-127	12	0-20	ME
2-Chlorotoluene	50.00	46.64	93	47.75	95	80-120	73-127	2	0-20	
4-Chlorotoluene	50.00	45.74	91	46.84	94	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	47.62	95	50.01	100	80-120	73-127	5	0-20	
1,2-Dibromo-3-Chloropropane	50.00	50.04	100	50.37	101	80-120	73-127	1	0-20	
1,2-Dibromoethane	50.00	48.52	97	50.87	102	80-120	73-127	5	0-20	
Dibromomethane	50.00	48.49	97	49.61	99	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	44.72	89	45.43	91	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	44.41	89	45.15	90	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	46.73	93	47.18	94	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	46.12	92	52.20	104	80-120	73-127	12	0-20	
1,1-Dichloroethane	50.00	46.64	93	47.49	95	80-120	73-127	2	0-20	
1,2-Dichloroethane	50.00	53.09	106	54.56	109	80-120	73-127	3	0-20	
1,1-Dichloroethene	50.00	46.09	92	45.75	91	68-128	58-138	1	0-20	
c-1,2-Dichloroethene	50.00	48.83	98	50.24	100	80-120	73-127	3	0-20	
t-1,2-Dichloroethene	50.00	49.65	99	50.06	100	80-120	73-127	1	0-20	
1,2-Dichloropropane	50.00	48.80	98	49.41	99	79-115	73-121	1	0-25	
1,3-Dichloropropane	50.00	50.03	100	50.88	102	80-120	73-127	2	0-20	
2,2-Dichloropropane	50.00	54.17	108	54.82	110	80-120	73-127	1	0-20	
1,1-Dichloropropene	50.00	52.21	104	52.68	105	80-120	73-127	1	0-20	
c-1,3-Dichloropropene	50.00	54.14	108	56.25	113	80-120	73-127	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	48.73	97	49.72	99	80-120	73-127	2	0-20	
Ethylbenzene	50.00	48.85	98	50.35	101	80-120	73-127	3	0-20	
2-Hexanone	50.00	50.56	101	54.26	109	80-120	73-127	7	0-20	
Isopropylbenzene	50.00	46.34	93	48.42	97	80-120	73-127	4	0-20	
p-Isopropyltoluene	50.00	46.79	94	46.67	93	80-120	73-127	0	0-20	
Methylene Chloride	50.00	46.25	93	48.06	96	80-120	73-127	4	0-20	
4-Methyl-2-Pentanone	50.00	48.79	98	50.19	100	80-120	73-127	3	0-20	
Naphthalene	50.00	52.39	105	51.35	103	80-120	73-127	2	0-20	
n-Propylbenzene	50.00	45.89	92	47.39	95	80-120	73-127	3	0-20	
Styrene	50.00	48.77	98	50.59	101	80-120	73-127	4	0-20	
1,1,1,2-Tetrachloroethane	50.00	48.26	97	50.92	102	80-120	73-127	5	0-20	
1,1,2,2-Tetrachloroethane	50.00	48.38	97	48.73	97	80-120	73-127	1	0-20	
Tetrachloroethene	50.00	46.36	93	47.94	96	80-120	73-127	3	0-20	
Toluene	50.00	48.20	96	50.21	100	80-120	73-127	4	0-20	
1,2,3-Trichlorobenzene	50.00	55.26	111	53.59	107	80-120	73-127	3	0-20	
1,2,4-Trichlorobenzene	50.00	57.06	114	55.70	111	80-120	73-127	2	0-20	
1,1,1-Trichloroethane	50.00	52.63	105	52.40	105	80-120	73-127	0	0-20	
1,1,2-Trichloroethane	50.00	47.42	95	49.32	99	80-120	73-127	4	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	47.03	94	47.57	95	80-120	73-127	1	0-20	
Trichloroethene	50.00	49.34	99	50.91	102	80-120	73-127	3	0-20	
Trichlorofluoromethane	50.00	42.78	86	49.06	98	80-120	73-127	14	0-20	
1,2,3-Trichloropropane	50.00	50.85	102	52.37	105	80-120	73-127	3	0-20	
1,2,4-Trimethylbenzene	50.00	51.17	102	52.07	104	80-120	73-127	2	0-20	
1,3,5-Trimethylbenzene	50.00	52.46	105	54.00	108	80-120	73-127	3	0-20	
Vinyl Acetate	50.00	57.10	114	56.64	113	80-120	73-127	1	0-20	
Vinyl Chloride	50.00	36.70	73	41.36	83	67-127	57-137	12	0-20	
p/m-Xylene	100.0	96.27	96	100.3	100	80-120	73-127	4	0-20	
o-Xylene	50.00	47.66	95	49.50	99	80-120	73-127	4	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	53.67	107	53.87	108	70-124	61-133	0	0-20	
Tert-Butyl Alcohol (TBA)	250.0	230.2	92	259.2	104	73-121	65-129	12	0-20	
Diisopropyl Ether (DIPE)	50.00	51.25	103	51.78	104	69-129	59-139	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	54.33	109	54.65	109	70-124	61-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	54.71	109	54.98	110	74-122	66-130	0	0-20	
Ethanol	500.0	425.5	85	473.1	95	51-135	37-149	11	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767		Page 3 of 8

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-274	**Soil**	**GC/MS PP**	**07/18/13**	**07/18/13 14:48**	**130718L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	48.32	97	46.45	93	80-120	73-127	4	0-20	
Benzene	50.00	49.24	98	49.79	100	80-120	73-127	1	0-20	
Bromobenzene	50.00	47.88	96	48.96	98	80-120	73-127	2	0-20	
Bromochloromethane	50.00	48.51	97	49.64	99	80-120	73-127	2	0-20	
Bromodichloromethane	50.00	51.60	103	52.62	105	80-120	73-127	2	0-20	
Bromoform	50.00	48.06	96	48.71	97	80-120	73-127	1	0-20	
Bromomethane	50.00	44.60	89	45.09	90	80-120	73-127	1	0-20	
2-Butanone	50.00	51.03	102	52.92	106	80-120	73-127	4	0-20	
n-Butylbenzene	50.00	51.34	103	52.82	106	77-123	69-131	3	0-25	
sec-Butylbenzene	50.00	49.06	98	50.27	101	80-120	73-127	2	0-20	
tert-Butylbenzene	50.00	48.78	98	49.04	98	80-120	73-127	1	0-20	
Carbon Disulfide	50.00	42.69	85	43.81	88	80-120	73-127	3	0-20	
Carbon Tetrachloride	50.00	56.24	112	55.81	112	65-137	53-149	1	0-20	
Chlorobenzene	50.00	45.89	92	46.22	92	80-120	73-127	1	0-20	
Chloroethane	50.00	48.78	98	47.00	94	80-120	73-127	4	0-20	
Chloroform	50.00	50.14	100	50.14	100	80-120	73-127	0	0-20	
Chloromethane	50.00	44.68	89	43.32	87	80-120	73-127	3	0-20	
2-Chlorotoluene	50.00	49.02	98	49.34	99	80-120	73-127	1	0-20	
4-Chlorotoluene	50.00	48.05	96	48.84	98	80-120	73-127	2	0-20	
Dibromochloromethane	50.00	48.21	96	48.72	97	80-120	73-127	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	50.42	101	51.98	104	80-120	73-127	3	0-20	
1,2-Dibromoethane	50.00	49.05	98	49.82	100	80-120	73-127	2	0-20	
Dibromomethane	50.00	49.28	99	50.06	100	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	46.58	93	47.73	95	80-120	73-127	2	0-20	
1,3-Dichlorobenzene	50.00	47.50	95	48.69	97	80-120	73-127	2	0-20	
1,4-Dichlorobenzene	50.00	46.39	93	46.81	94	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	47.98	96	47.75	96	80-120	73-127	0	0-20	
1,1-Dichloroethane	50.00	50.22	100	49.92	100	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	54.08	108	53.77	108	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	49.38	99	49.37	99	68-128	58-138	0	0-20	
c-1,2-Dichloroethene	50.00	50.14	100	50.09	100	80-120	73-127	0	0-20	
t-1,2-Dichloroethene	50.00	48.89	98	48.85	98	80-120	73-127	0	0-20	
1,2-Dichloropropane	50.00	49.12	98	49.90	100	79-115	73-121	2	0-25	
1,3-Dichloropropane	50.00	47.93	96	48.23	96	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	55.68	111	55.56	111	80-120	73-127	0	0-20	
1,1-Dichloropropene	50.00	51.26	103	51.11	102	80-120	73-127	0	0-20	
c-1,3-Dichloropropene	50.00	55.04	110	55.80	112	80-120	73-127	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5035
Method: EPA 8260B

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	50.85	102	50.15	100	80-120	73-127	1	0-20	
Ethylbenzene	50.00	48.28	97	49.11	98	80-120	73-127	2	0-20	
2-Hexanone	50.00	49.21	98	50.05	100	80-120	73-127	2	0-20	
Isopropylbenzene	50.00	50.08	100	50.71	101	80-120	73-127	1	0-20	
p-Isopropyltoluene	50.00	49.11	98	50.23	100	80-120	73-127	2	0-20	
Methylene Chloride	50.00	46.65	93	46.93	94	80-120	73-127	1	0-20	
4-Methyl-2-Pentanone	50.00	50.68	101	49.84	100	80-120	73-127	2	0-20	
Naphthalene	50.00	50.90	102	52.62	105	80-120	73-127	3	0-20	
n-Propylbenzene	50.00	49.67	99	50.51	101	80-120	73-127	2	0-20	
Styrene	50.00	48.39	97	49.37	99	80-120	73-127	2	0-20	
1,1,1,2-Tetrachloroethane	50.00	48.95	98	48.43	97	80-120	73-127	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	46.14	92	46.18	92	80-120	73-127	0	0-20	
Tetrachloroethene	50.00	46.00	92	46.99	94	80-120	73-127	2	0-20	
Toluene	50.00	48.70	97	48.87	98	80-120	73-127	0	0-20	
1,2,3-Trichlorobenzene	50.00	54.99	110	56.28	113	80-120	73-127	2	0-20	
1,2,4-Trichlorobenzene	50.00	55.87	112	57.82	116	80-120	73-127	3	0-20	
1,1,1-Trichloroethane	50.00	53.34	107	53.28	107	80-120	73-127	0	0-20	
1,1,2-Trichloroethane	50.00	47.12	94	45.63	91	80-120	73-127	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	49.26	99	48.41	97	80-120	73-127	2	0-20	
Trichloroethene	50.00	50.22	100	49.73	99	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	51.27	103	50.55	101	80-120	73-127	1	0-20	
1,2,3-Trichloropropane	50.00	48.44	97	49.55	99	80-120	73-127	2	0-20	
1,2,4-Trimethylbenzene	50.00	49.15	98	50.63	101	80-120	73-127	3	0-20	
1,3,5-Trimethylbenzene	50.00	50.74	101	51.58	103	80-120	73-127	2	0-20	
Vinyl Acetate	50.00	49.64	99	48.48	97	80-120	73-127	2	0-20	
Vinyl Chloride	50.00	48.02	96	47.34	95	67-127	57-137	1	0-20	
p/m-Xylene	100.0	99.07	99	100.6	101	80-120	73-127	2	0-20	
o-Xylene	50.00	50.64	101	51.06	102	80-120	73-127	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	54.05	108	53.80	108	70-124	61-133	0	0-20	
Tert-Butyl Alcohol (TBA)	250.0	237.5	95	246.7	99	73-121	65-129	4	0-20	
Diisopropyl Ether (DIPE)	50.00	51.06	102	50.86	102	69-129	59-139	0	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	53.73	107	53.45	107	70-124	61-133	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	52.40	105	52.25	104	74-122	66-130	0	0-20	
Ethanol	500.0	433.6	87	438.5	88	51-135	37-149	1	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 0
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/16/13
1111 Broadway, FL 6TH	Work Order:	13-07-1023
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767		Page 6 of 8

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1066	**Aqueous**	**GC/MS GGG**	**07/19/13 14:29**	**130719L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	69.04	138	70-130	60-140	ME
Benzene	50.00	47.25	94	70-130	60-140	
Bromobenzene	50.00	51.91	104	70-130	60-140	
Bromochloromethane	50.00	50.70	101	70-130	60-140	
Bromodichloromethane	50.00	47.86	96	70-130	60-140	
Bromoform	50.00	51.69	103	70-130	60-140	
Bromomethane	50.00	34.66	69	70-130	60-140	ME
2-Butanone	50.00	59.24	118	70-130	60-140	
n-Butylbenzene	50.00	60.41	121	77-123	69-131	
sec-Butylbenzene	50.00	52.76	106	70-130	60-140	
tert-Butylbenzene	50.00	54.87	110	70-130	60-140	
Carbon Disulfide	50.00	47.42	95	70-130	60-140	
Carbon Tetrachloride	50.00	49.35	99	66-138	54-150	
Chlorobenzene	50.00	49.28	99	70-130	60-140	
Chloroethane	50.00	59.21	118	70-130	60-140	
Chloroform	50.00	50.47	101	70-130	60-140	
Chloromethane	50.00	47.82	96	70-130	60-140	
2-Chlorotoluene	50.00	48.88	98	70-130	60-140	
4-Chlorotoluene	50.00	48.68	97	70-130	60-140	
Dibromochloromethane	50.00	48.76	98	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	47.52	95	70-130	60-140	
1,2-Dibromoethane	50.00	50.14	100	70-130	60-140	
Dibromomethane	50.00	50.21	100	70-130	60-140	
1,2-Dichlorobenzene	50.00	49.97	100	70-130	60-140	
1,3-Dichlorobenzene	50.00	51.32	103	70-130	60-140	
1,4-Dichlorobenzene	50.00	55.96	112	70-130	60-140	
Dichlorodifluoromethane	50.00	65.23	130	70-130	60-140	
1,1-Dichloroethane	50.00	49.63	99	70-130	60-140	
1,2-Dichloroethane	50.00	51.54	103	80-129	72-137	
1,1-Dichloroethene	50.00	56.69	113	71-131	61-141	
c-1,2-Dichloroethene	50.00	51.58	103	70-130	60-140	
t-1,2-Dichloroethene	50.00	53.76	108	70-130	60-140	
1,2-Dichloropropane	50.00	50.07	100	79-115	73-121	
1,3-Dichloropropane	50.00	47.42	95	70-130	60-140	
2,2-Dichloropropane	50.00	67.97	136	70-130	60-140	ME
1,1-Dichloropropene	50.00	55.47	111	70-130	60-140	
c-1,3-Dichloropropene	50.00	52.19	104	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/16/13
Work Order: 13-07-1023
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	47.15	94	70-130	60-140	
Ethylbenzene	50.00	52.23	104	80-123	73-130	
2-Hexanone	50.00	53.60	107	70-130	60-140	
Isopropylbenzene	50.00	49.81	100	70-130	60-140	
p-Isopropyltoluene	50.00	53.47	107	70-130	60-140	
Methylene Chloride	50.00	53.75	108	70-130	60-140	
4-Methyl-2-Pentanone	50.00	53.34	107	70-130	60-140	
Naphthalene	50.00	55.07	110	70-130	60-140	
n-Propylbenzene	50.00	50.21	100	70-130	60-140	
Styrene	50.00	52.16	104	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	55.03	110	70-130	60-140	
Tetrachloroethene	50.00	36.25	73	70-130	60-140	
Toluene	50.00	50.75	102	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	57.01	114	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	58.40	117	70-130	60-140	
1,1,1-Trichloroethane	50.00	51.18	102	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	60.47	121	70-130	60-140	
1,1,2-Trichloroethane	50.00	48.32	97	70-130	60-140	
Trichloroethene	50.00	47.64	95	70-130	60-140	
Trichlorofluoromethane	50.00	59.06	118	70-130	60-140	
1,2,3-Trichloropropane	50.00	52.61	105	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	54.34	109	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	55.70	111	70-130	60-140	
Vinyl Acetate	50.00	74.11	148	70-130	60-140	X
Vinyl Chloride	50.00	51.02	102	70-136	59-147	
p/m-Xylene	100.0	98.98	99	70-130	60-140	
o-Xylene	50.00	46.36	93	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	46.86	94	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	260.5	104	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	49.52	99	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	51.69	103	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	46.55	93	67-133	56-144	
Ethanol	500.0	550.5	110	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-07-1023 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8260B	EPA 5035	849	GC/MS PP	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-07-1023 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

For any analysis identified as a "field" test with a holding time (HT) </= 15 minutes where the sample is received outside of HT, Calscience will adhere to its internal HT of 24 hours. In cases where sample analysis does not meet Calscience's internal HT, results will be appropriately qualified.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
Other CA office locations: Concord and San Luis Obispo
For courier service / sample drop off information,
contact sales@calscience.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
13-07-1023

Date 7/16/2013
Page 1 of 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland STATE: CA ZIP: 94607
TEL: 510-836-3034 E-MAIL: srehan@geosyntec.com fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
P.O. NO.: WR1767
PROJECT CONTACT: Syed Rehan, Frances Mansfield
SAMPLER(S): (PRINT) B. Cozzens

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF | GLOBAL ID | LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	TB-2	7/16/13	—	W	2		X							X								
2	SV-14-05		0926	S	4		X							X								
3	SV-14-05-DUP		0926	S	4		X							X								
4	SV-13-05		1104	S	4		X							X								
5	SV-15-05		1326	S	4		X							X								
6	SV-17-05		1424	S	4		X							X								
7	SV-17-15	↓	1515	S	4		X							X								
8	SV-16-05	7/15/13	1555	S	4		X							X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/16/13	Time: 1540
Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/16/13	Time: 17:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

11/01/12 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-07-1023

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants DATE: 07/16/13

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.3 °C - 0.2 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☑	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☑3 TerraCores® ☑2oz PJ

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 130708B **Labeled/Checked by:** AJ

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-07-1023

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☐ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis
1	B	2							

Comments: _____

*Transferred at Client's request.

Initial / Date: WY 07/16/13

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 13-07-1126

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: KP Chatsworth / WR1767

Attention: Syed Rehan
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Approved for release on 07/26/2013 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 13-07-1126

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Calscience Environmental Laboratories, Inc.

Work Order Narrative

Work Order: 13-07-1126 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 07/17/13. They were assigned to Work Order 13-07-1126.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Calscience Environmental Laboratories, Inc.

Sample Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Attn: Syed Rehan

Work Order: 13-07-1126
Project Name: KP Chatsworth / WR1767
PO Number:
Date Received: 07/17/13

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-3	13-07-1126-1	07/17/13 00:00	2	Aqueous
SB-2-05	13-07-1126-2	07/17/13 07:50	9	Soil
SB-2-10	13-07-1126-3	07/17/13 08:05	9	Soil
SB-2-15	13-07-1126-4	07/17/13 08:13	9	Soil
SB-3-05	13-07-1126-5	07/17/13 09:10	9	Soil
SB-3-05-DUP	13-07-1126-6	07/17/13 09:15	9	Soil
SB-3-10	13-07-1126-7	07/17/13 09:18	9	Soil
SB-3-15	13-07-1126-8	07/17/13 09:25	9	Soil
SB-1-05	13-07-1126-9	07/17/13 12:40	4	Soil
IDW-2	13-07-1126-10	07/17/13 14:30	6	Soil

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Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-1126
Project Name: KP Chatsworth / WR1767
Received: 07/17/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SB-2-05 (13-07-1126-2)						
TPH as Gasoline	0.087	J	0.052*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	74		51	ug/kg	EPA 8260B	EPA 5035
Benzene	4.4		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	11	J	3.8*	ug/kg	EPA 8260B	EPA 5035
n-Butylbenzene	0.16	J	0.16*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.72	J	0.31*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.0		1.0	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.37	J	0.21*	ug/kg	EPA 8260B	EPA 5035
Toluene	5.2		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.72	J	0.60*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.9	J	0.27*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.74	J	0.57*	ug/kg	EPA 8260B	EPA 5035
SB-2-10 (13-07-1126-3)						
TPH as Gasoline	0.079	J	0.052*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	38	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.7		0.99	ug/kg	EPA 8260B	EPA 5035
2-Butanone	7.0	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.3		0.99	ug/kg	EPA 8260B	EPA 5035
Toluene	3.7		0.99	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.1	J	0.27*	ug/kg	EPA 8260B	EPA 5035
SB-2-15 (13-07-1126-4)						
TPH as Gasoline	0.053	J	0.048*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	47	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.9		0.98	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.9	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.47	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.4		0.98	ug/kg	EPA 8260B	EPA 5035
Toluene	3.3		0.98	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.0	J	0.26*	ug/kg	EPA 8260B	EPA 5035

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-1126
Project Name: KP Chatsworth / WR1767
Received: 07/17/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SB-3-05 (13-07-1126-5)						
TPH as Gasoline	0.057	J	0.048*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	58		49	ug/kg	EPA 8260B	EPA 5035
Benzene	3.9		0.97	ug/kg	EPA 8260B	EPA 5035
2-Butanone	9.1	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.63	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.5		0.97	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.41	J	0.20*	ug/kg	EPA 8260B	EPA 5035
Toluene	3.2		0.97	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.99	J	0.26*	ug/kg	EPA 8260B	EPA 5035
SB-3-05-DUP (13-07-1126-6)						
TPH as Gasoline	0.057	J	0.048*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	48	J	5.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.7		0.95	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.4	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.64	J	0.29*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.8		0.95	ug/kg	EPA 8260B	EPA 5035
Toluene	3.3		0.95	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.1	J	0.25*	ug/kg	EPA 8260B	EPA 5035
SB-3-10 (13-07-1126-7)						
Acetone	46	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	3.5		0.99	ug/kg	EPA 8260B	EPA 5035
2-Butanone	6.8	J	3.7*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.46	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.3		0.99	ug/kg	EPA 8260B	EPA 5035
Toluene	3.0		0.99	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.82	J	0.26*	ug/kg	EPA 8260B	EPA 5035
SB-3-15 (13-07-1126-8)						
TPH as Gasoline	0.055	J	0.049*	mg/kg	EPA 8015B (M)	EPA 5035
Acetone	46	J	6.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.8		0.96	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.8	J	3.6*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.50	J	0.30*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.1		0.96	ug/kg	EPA 8260B	EPA 5035
Toluene	2.7		0.96	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.74	J	0.26*	ug/kg	EPA 8260B	EPA 5035

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* MDL is shown

Calscience Environmental Laboratories, Inc.

Detections Summary

Client: Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Work Order: 13-07-1126
Project Name: KP Chatsworth / WR1767
Received: 07/17/13

Attn: Syed Rehan

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
SB-1-05 (13-07-1126-9)						
Acetone	29	J	6.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.3		1.0	ug/kg	EPA 8260B	EPA 5035
2-Butanone	5.2	J	3.9*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	2.3		1.0	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	52		1.0	ug/kg	EPA 8260B	EPA 5035
Toluene	4.1		1.0	ug/kg	EPA 8260B	EPA 5035
1,2,4-Trimethylbenzene	0.69	J	0.61*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.6	J	0.28*	ug/kg	EPA 8260B	EPA 5035
o-Xylene	0.71	J	0.58*	ug/kg	EPA 8260B	EPA 5035
IDW-2 (13-07-1126-10)						
Arsenic	2.60		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	84.2		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.225	J	0.137*	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.21		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.59		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	10.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	3.79		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	5.17		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	33.1		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.159		0.0835	mg/kg	EPA 7471A	EPA 7471A Total
Acetone	58		54	ug/kg	EPA 8260B	EPA 5035
Benzene	4.2		1.1	ug/kg	EPA 8260B	EPA 5035
2-Butanone	9.5	J	4.1*	ug/kg	EPA 8260B	EPA 5035
Carbon Disulfide	0.71	J	0.33*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	1.6		1.1	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	10		1.1	ug/kg	EPA 8260B	EPA 5035
Toluene	3.7		1.1	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.1	J	0.29*	ug/kg	EPA 8260B	EPA 5035
Tert-Butyl Alcohol (TBA)	8.7	J	5.6*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-A**	**07/17/13 07:50**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 08:48**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-A**	**07/17/13 08:05**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 09:04**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	69	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-A**	**07/17/13 08:13**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 09:55**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-A**	**07/17/13 09:10**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:12**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	67	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-A**	**07/17/13 09:15**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:28**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	67	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-A**	**07/17/13 09:18**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:45**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	73	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-A**	**07/17/13 09:25**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 11:01**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	71	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-420-507**	**N/A**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 04:41**	**130718B16**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Motor Oil	ND	25	7.0	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	84	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-A**	**07/17/13 07:50**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 08:48**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	74	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-A**	**07/17/13 08:05**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 09:04**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	69	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-A**	**07/17/13 08:13**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 09:55**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	64	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-A**	**07/17/13 09:10**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:12**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	67	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-A**	**07/17/13 09:15**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:28**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	67	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-A**	**07/17/13 09:18**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 10:45**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	73	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-A**	**07/17/13 09:25**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 11:01**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	71	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-422-605**	**N/A**	**Soil**	**GC 46**	**07/18/13**	**07/19/13 04:41**	**130718B15**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.6	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	84	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-H**	**07/17/13 07:50**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 02:03**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.087	0.26	0.052	1.03	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-H**	**07/17/13 08:05**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 02:36**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.079	0.26	0.052	1.04	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-H**	**07/17/13 08:13**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 03:09**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.053	0.24	0.048	0.952	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-H**	**07/17/13 09:10**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 03:42**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.057	0.24	0.048	0.951	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8015B (M)
Units: mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-H**	**07/17/13 09:15**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 04:15**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.057	0.24	0.048	0.962	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-H**	**07/17/13 09:18**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 04:48**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.24	0.048	0.956	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-H**	**07/17/13 09:25**	**Soil**	**GC 4**	**07/17/13**	**07/19/13 05:21**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	0.055	0.24	0.049	0.963	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	60-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-285-4792**	**N/A**	**Soil**	**GC 4**	**07/18/13**	**07/18/13 17:48**	**130718B01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
TPH as Gasoline	ND	0.25	0.050	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	93	60-126	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-2	**13-07-1126-10-A**	**07/17/13 14:30**	**Soil**	**ICP 7300**	**07/18/13**	**07/19/13 22:41**	**130718L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	2.60	0.750	0.259	1	
Barium	84.2	0.500	0.154	1	
Beryllium	0.225	0.250	0.137	1	J
Cadmium	1.21	0.500	0.135	1	
Chromium	15.6	0.250	0.142	1	
Cobalt	4.59	0.250	0.148	1	
Copper	10.5	0.500	0.135	1	
Lead	3.79	0.500	0.132	1	
Molybdenum	5.17	0.250	0.132	1	
Nickel	13.3	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	27.4	0.250	0.141	1	
Zinc	33.1	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-17064**	**N/A**	**Soil**	**ICP 7300**	**07/18/13**	**07/19/13 20:10**	**130718L05**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Antimony	ND	0.750	0.149	1	
Arsenic	ND	0.750	0.259	1	
Barium	ND	0.500	0.154	1	
Beryllium	ND	0.250	0.137	1	
Cadmium	ND	0.500	0.135	1	
Chromium	ND	0.250	0.142	1	
Cobalt	ND	0.250	0.148	1	
Copper	ND	0.500	0.135	1	
Lead	ND	0.500	0.132	1	
Molybdenum	ND	0.250	0.132	1	
Nickel	ND	0.250	0.145	1	
Selenium	ND	0.750	0.300	1	
Silver	ND	0.250	0.0857	1	
Thallium	ND	0.750	0.152	1	
Vanadium	ND	0.250	0.141	1	
Zinc	ND	1.00	0.178	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received:	07/17/13
Work Order:	13-07-1126
Preparation:	EPA 7471A Total
Method:	EPA 7471A
Units:	mg/kg
	Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-2	**13-07-1126-10-A**	**07/17/13 14:30**	**Soil**	**Mercury**	**07/18/13**	**07/19/13 12:26**	**130718L08**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.159	0.0835	0.00588	1	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-04-007-9452**	**N/A**	**Soil**	**Mercury**	**07/18/13**	**07/18/13 17:41**	**130718L08**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0835	0.00588	1	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-A**	**07/17/13 07:50**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 04:45**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	50-130	
2,4,5,6-Tetrachloro-m-Xylene	84	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-A**	**07/17/13 08:05**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 05:03**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	50-130	
2,4,5,6-Tetrachloro-m-Xylene	83	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-A**	**07/17/13 08:13**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 05:21**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	86	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-A**	**07/17/13 09:10**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 05:39**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-A**	**07/17/13 09:15**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 05:57**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-A**	**07/17/13 09:18**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 06:15**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	50-130	
2,4,5,6-Tetrachloro-m-Xylene	87	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-A**	**07/17/13 09:25**	**Soil**	**GC 58**	**07/19/13**	**07/24/13 06:33**	**130719L10**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	50-130	
2,4,5,6-Tetrachloro-m-Xylene	82	50-130	

Method Blank	099-12-535-2188	N/A	Soil	GC 58	07/19/13	07/20/13 02:37	130719L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aroclor-1016	ND	50	14	1	
Aroclor-1221	ND	50	13	1	
Aroclor-1232	ND	50	11	1	
Aroclor-1242	ND	50	12	1	
Aroclor-1248	ND	50	14	1	
Aroclor-1254	ND	50	12	1	
Aroclor-1260	ND	50	11	1	
Aroclor-1262	ND	50	12	1	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	50-130	
2,4,5,6-Tetrachloro-m-Xylene	90	50-130	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-A**	**07/17/13 07:50**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 20:59**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: KP Chatsworth / WR1767		Page 3 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	75	45-105	
2-Fluorophenol	72	35-105	
Nitrobenzene-d5	63	35-100	
p-Terphenyl-d14	91	30-125	
Phenol-d6	90	40-100	
2,4,6-Tribromophenol	85	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-A**	**07/17/13 08:05**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 21:25**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: KP Chatsworth / WR1767		Page 6 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	45-105	
2-Fluorophenol	63	35-105	
Nitrobenzene-d5	64	35-100	
p-Terphenyl-d14	92	30-125	
Phenol-d6	84	40-100	
2,4,6-Tribromophenol	81	35-125	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-A**	**07/17/13 08:13**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 21:52**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: KP Chatsworth / WR1767			Page 9 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	71	45-105	
2-Fluorophenol	61	35-105	
Nitrobenzene-d5	62	35-100	
p-Terphenyl-d14	87	30-125	
Phenol-d6	82	40-100	
2,4,6-Tribromophenol	73	35-125	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-A**	**07/17/13 09:10**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 22:18**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: KP Chatsworth / WR1767			Page 12 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	83	45-105	
2-Fluorophenol	77	35-105	
Nitrobenzene-d5	73	35-100	
p-Terphenyl-d14	96	30-125	
Phenol-d6	89	40-100	
2,4,6-Tribromophenol	86	35-125	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-A**	**07/17/13 09:15**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 22:44**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: KP Chatsworth / WR1767			Page 15 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	76	45-105	
2-Fluorophenol	65	35-105	
Nitrobenzene-d5	65	35-100	
p-Terphenyl-d14	94	30-125	
Phenol-d6	81	40-100	
2,4,6-Tribromophenol	83	35-125	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-A**	**07/17/13 09:18**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 23:10**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: KP Chatsworth / WR1767			Page 18 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	45-105	
2-Fluorophenol	53	35-105	
Nitrobenzene-d5	56	35-100	
p-Terphenyl-d14	91	30-125	
Phenol-d6	69	40-100	
2,4,6-Tribromophenol	75	35-125	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-A**	**07/17/13 09:25**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 23:36**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3545
		Method:	EPA 8270C
		Units:	mg/kg
Project: KP Chatsworth / WR1767			Page 21 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	82	45-105	
2-Fluorophenol	66	35-105	
Nitrobenzene-d5	72	35-100	
p-Terphenyl-d14	95	30-125	
Phenol-d6	84	40-100	
2,4,6-Tribromophenol	80	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-620-28**	**N/A**	**Soil**	**GC/MS SS**	**07/19/13**	**07/23/13 15:49**	**130719L12**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,6-Dichlorophenol	ND	2.0	0.079	1	
Acenaphthene	ND	0.50	0.099	1	
Acenaphthylene	ND	0.50	0.13	1	
Aniline	ND	0.50	0.11	1	
Anthracene	ND	0.50	0.11	1	
Azobenzene	ND	0.50	0.11	1	
Benzidine	ND	10	0.93	1	
Benzo (a) Anthracene	ND	0.50	0.19	1	
Benzo (a) Pyrene	ND	0.50	0.085	1	
Benzo (b) Fluoranthene	ND	0.50	0.084	1	
Benzo (g,h,i) Perylene	ND	0.50	0.090	1	
Benzo (k) Fluoranthene	ND	0.50	0.11	1	
Benzoic Acid	ND	2.5	0.78	1	
Benzyl Alcohol	ND	0.50	0.15	1	
Bis(2-Chloroethoxy) Methane	ND	0.50	0.12	1	
Bis(2-Chloroethyl) Ether	ND	2.5	0.11	1	
Bis(2-Chloroisopropyl) Ether	ND	0.50	0.12	1	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	0.096	1	
4-Bromophenyl-Phenyl Ether	ND	0.50	0.10	1	
Butyl Benzyl Phthalate	ND	0.50	0.10	1	
4-Chloro-3-Methylphenol	ND	0.50	0.15	1	
4-Chloroaniline	ND	0.50	0.12	1	
2-Chloronaphthalene	ND	0.50	0.097	1	
2-Chlorophenol	ND	0.50	0.14	1	
4-Chlorophenyl-Phenyl Ether	ND	0.50	0.10	1	
Chrysene	ND	0.50	0.094	1	
Di-n-Butyl Phthalate	ND	0.50	0.096	1	
Di-n-Octyl Phthalate	ND	0.50	0.083	1	
Dibenz (a,h) Anthracene	ND	0.50	0.090	1	
Dibenzofuran	ND	0.50	0.12	1	
1,2-Dichlorobenzene	ND	0.50	0.12	1	
1,3-Dichlorobenzene	ND	0.50	0.10	1	
1,4-Dichlorobenzene	ND	0.50	0.14	1	
3,3'-Dichlorobenzidine	ND	10	1.1	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,4-Dichlorophenol	ND	0.50	0.14	1	
Diethyl Phthalate	ND	0.50	0.16	1	
Dimethyl Phthalate	ND	0.50	0.18	1	
2,4-Dimethylphenol	ND	0.50	0.12	1	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.6	1	
2,4-Dinitrophenol	ND	2.5	0.72	1	
2,4-Dinitrotoluene	ND	0.50	0.15	1	
2,6-Dinitrotoluene	ND	0.50	0.17	1	
Fluoranthene	ND	0.50	0.11	1	
Fluorene	ND	0.50	0.11	1	
Hexachloro-1,3-Butadiene	ND	0.50	0.10	1	
Hexachlorobenzene	ND	0.50	0.10	1	
Hexachlorocyclopentadiene	ND	2.5	0.70	1	
Hexachloroethane	ND	0.50	0.11	1	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	0.099	1	
Isophorone	ND	0.50	0.12	1	
2-Methylnaphthalene	ND	0.50	0.095	1	
1-Methylnaphthalene	ND	0.50	0.095	1	
2-Methylphenol	ND	0.50	0.14	1	
3/4-Methylphenol	ND	0.50	0.14	1	
N-Nitroso-di-n-propylamine	ND	0.50	0.12	1	
N-Nitrosodimethylamine	ND	0.50	0.12	1	
N-Nitrosodiphenylamine	ND	0.50	0.12	1	
Naphthalene	ND	0.50	0.13	1	
4-Nitroaniline	ND	0.50	0.14	1	
3-Nitroaniline	ND	0.50	0.16	1	
2-Nitroaniline	ND	0.50	0.16	1	
Nitrobenzene	ND	2.5	0.76	1	
4-Nitrophenol	ND	0.50	0.16	1	
2-Nitrophenol	ND	0.50	0.13	1	
Pentachlorophenol	ND	2.5	1.3	1	
Phenanthrene	ND	0.50	0.12	1	
Phenol	ND	0.50	0.14	1	
Pyrene	ND	0.50	0.10	1	
Pyridine	ND	0.50	0.33	1	
1,2,4-Trichlorobenzene	ND	0.50	0.11	1	
2,4,6-Trichlorophenol	ND	0.50	0.16	1	
2,4,5-Trichlorophenol	ND	0.50	0.15	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 3545
	Method:	EPA 8270C
	Units:	mg/kg
Project: KP Chatsworth / WR1767		Page 24 of 24

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	79	45-105	
2-Fluorophenol	78	35-105	
Nitrobenzene-d5	71	35-100	
p-Terphenyl-d14	91	30-125	
Phenol-d6	82	40-100	
2,4,6-Tribromophenol	73	35-125	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-05	**13-07-1126-2-E**	**07/17/13 07:50**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 19:12**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	74	51	6.4	1.02	
Benzene	4.4	1.0	0.13	1.02	
Bromobenzene	ND	1.0	0.21	1.02	
Bromochloromethane	ND	2.0	0.70	1.02	
Bromodichloromethane	ND	1.0	0.24	1.02	
Bromoform	ND	5.1	0.81	1.02	
Bromomethane	ND	20	9.6	1.02	
2-Butanone	11	20	3.8	1.02	J
n-Butylbenzene	0.16	1.0	0.16	1.02	J
sec-Butylbenzene	ND	1.0	0.59	1.02	
tert-Butylbenzene	ND	1.0	0.15	1.02	
Carbon Disulfide	0.72	10	0.31	1.02	J
Carbon Tetrachloride	ND	1.0	0.29	1.02	
Chlorobenzene	ND	1.0	0.23	1.02	
Chloroethane	ND	2.0	1.9	1.02	
Chloroform	ND	1.0	0.24	1.02	
Chloromethane	ND	20	0.70	1.02	
2-Chlorotoluene	ND	1.0	0.24	1.02	
4-Chlorotoluene	ND	1.0	0.22	1.02	
Dibromochloromethane	ND	2.0	0.58	1.02	
1,2-Dibromo-3-Chloropropane	ND	5.1	1.8	1.02	
1,2-Dibromoethane	ND	1.0	0.26	1.02	
Dibromomethane	ND	1.0	0.79	1.02	
1,2-Dichlorobenzene	ND	1.0	0.23	1.02	
1,3-Dichlorobenzene	ND	1.0	0.18	1.02	
1,4-Dichlorobenzene	ND	1.0	0.23	1.02	
Dichlorodifluoromethane	ND	2.0	0.45	1.02	
1,1-Dichloroethane	ND	1.0	1.0	1.02	
1,2-Dichloroethane	ND	1.0	0.32	1.02	
1,1-Dichloroethene	ND	1.0	0.35	1.02	
c-1,2-Dichloroethene	ND	1.0	0.29	1.02	
t-1,2-Dichloroethene	ND	1.0	0.52	1.02	
1,2-Dichloropropane	ND	1.0	0.45	1.02	
1,3-Dichloropropane	ND	1.0	0.26	1.02	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.1	0.34	1.02	
1,1-Dichloropropene	ND	2.0	0.33	1.02	
c-1,3-Dichloropropene	ND	1.0	0.26	1.02	
t-1,3-Dichloropropene	ND	2.0	0.62	1.02	
Ethylbenzene	2.0	1.0	0.15	1.02	
2-Hexanone	ND	20	1.8	1.02	
Isopropylbenzene	ND	1.0	0.56	1.02	
p-Isopropyltoluene	ND	1.0	0.64	1.02	
Methylene Chloride	ND	10	1.4	1.02	
4-Methyl-2-Pentanone	ND	20	4.4	1.02	
Naphthalene	ND	10	0.83	1.02	
n-Propylbenzene	ND	2.0	0.51	1.02	
Styrene	ND	1.0	0.62	1.02	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.02	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.02	
Tetrachloroethene	0.37	1.0	0.21	1.02	J
Toluene	5.2	1.0	0.53	1.02	
1,2,3-Trichlorobenzene	ND	2.0	0.93	1.02	
1,2,4-Trichlorobenzene	ND	2.0	0.32	1.02	
1,1,1-Trichloroethane	ND	1.0	0.23	1.02	
1,1,2-Trichloroethane	ND	1.0	0.97	1.02	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.36	1.02	
Trichloroethene	ND	2.0	0.31	1.02	
Trichlorofluoromethane	ND	10	0.38	1.02	
1,2,3-Trichloropropane	ND	2.0	0.70	1.02	
1,2,4-Trimethylbenzene	0.72	2.0	0.60	1.02	J
1,3,5-Trimethylbenzene	ND	2.0	0.56	1.02	
Vinyl Acetate	ND	10	4.8	1.02	
Vinyl Chloride	ND	1.0	0.51	1.02	
p/m-Xylene	1.9	2.0	0.27	1.02	J
o-Xylene	0.74	1.0	0.57	1.02	J
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.02	
Tert-Butyl Alcohol (TBA)	ND	20	5.3	1.02	
Diisopropyl Ether (DIPE)	ND	1.0	0.49	1.02	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.52	1.02	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.36	1.02	
Ethanol	ND	510	85	1.02	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 3 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-10	**13-07-1126-3-E**	**07/17/13 08:05**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 19:39**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	38	50	6.2	0.99	J
Benzene	3.7	0.99	0.13	0.99	
Bromobenzene	ND	0.99	0.21	0.99	
Bromochloromethane	ND	2.0	0.68	0.99	
Bromodichloromethane	ND	0.99	0.23	0.99	
Bromoform	ND	5.0	0.79	0.99	
Bromomethane	ND	20	9.3	0.99	
2-Butanone	7.0	20	3.7	0.99	J
n-Butylbenzene	ND	0.99	0.15	0.99	
sec-Butylbenzene	ND	0.99	0.57	0.99	
tert-Butylbenzene	ND	0.99	0.15	0.99	
Carbon Disulfide	ND	9.9	0.30	0.99	
Carbon Tetrachloride	ND	0.99	0.28	0.99	
Chlorobenzene	ND	0.99	0.22	0.99	
Chloroethane	ND	2.0	1.9	0.99	
Chloroform	ND	0.99	0.24	0.99	
Chloromethane	ND	20	0.68	0.99	
2-Chlorotoluene	ND	0.99	0.23	0.99	
4-Chlorotoluene	ND	0.99	0.21	0.99	
Dibromochloromethane	ND	2.0	0.56	0.99	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	0.99	
1,2-Dibromoethane	ND	0.99	0.25	0.99	
Dibromomethane	ND	0.99	0.77	0.99	
1,2-Dichlorobenzene	ND	0.99	0.23	0.99	
1,3-Dichlorobenzene	ND	0.99	0.17	0.99	
1,4-Dichlorobenzene	ND	0.99	0.22	0.99	
Dichlorodifluoromethane	ND	2.0	0.44	0.99	
1,1-Dichloroethane	ND	0.99	0.99	0.99	
1,2-Dichloroethane	ND	0.99	0.31	0.99	
1,1-Dichloroethene	ND	0.99	0.34	0.99	
c-1,2-Dichloroethene	ND	0.99	0.28	0.99	
t-1,2-Dichloroethene	ND	0.99	0.50	0.99	
1,2-Dichloropropane	ND	0.99	0.43	0.99	
1,3-Dichloropropane	ND	0.99	0.25	0.99	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	0.99	
1,1-Dichloropropene	ND	2.0	0.33	0.99	
c-1,3-Dichloropropene	ND	0.99	0.25	0.99	
t-1,3-Dichloropropene	ND	2.0	0.60	0.99	
Ethylbenzene	1.3	0.99	0.15	0.99	
2-Hexanone	ND	20	1.7	0.99	
Isopropylbenzene	ND	0.99	0.54	0.99	
p-Isopropyltoluene	ND	0.99	0.62	0.99	
Methylene Chloride	ND	9.9	1.3	0.99	
4-Methyl-2-Pentanone	ND	20	4.3	0.99	
Naphthalene	ND	9.9	0.81	0.99	
n-Propylbenzene	ND	2.0	0.50	0.99	
Styrene	ND	0.99	0.60	0.99	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	0.99	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.99	
Tetrachloroethene	ND	0.99	0.21	0.99	
Toluene	3.7	0.99	0.51	0.99	
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.99	
1,2,4-Trichlorobenzene	ND	2.0	0.31	0.99	
1,1,1-Trichloroethane	ND	0.99	0.22	0.99	
1,1,2-Trichloroethane	ND	0.99	0.94	0.99	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	0.99	
Trichloroethene	ND	2.0	0.30	0.99	
Trichlorofluoromethane	ND	9.9	0.37	0.99	
1,2,3-Trichloropropane	ND	2.0	0.68	0.99	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.99	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.99	
Vinyl Acetate	ND	9.9	4.7	0.99	
Vinyl Chloride	ND	0.99	0.50	0.99	
p/m-Xylene	1.1	2.0	0.27	0.99	J
o-Xylene	ND	0.99	0.55	0.99	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.99	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.99	
Diisopropyl Ether (DIPE)	ND	0.99	0.48	0.99	
Ethyl-t-Butyl Ether (ETBE)	ND	0.99	0.50	0.99	
Tert-Amyl-Methyl Ether (TAME)	ND	0.99	0.35	0.99	
Ethanol	ND	500	83	0.99	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 6 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-2-15	**13-07-1126-4-E**	**07/17/13 08:13**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 20:05**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	47	49	6.1	0.978	J
Benzene	2.9	0.98	0.13	0.978	
Bromobenzene	ND	0.98	0.20	0.978	
Bromochloromethane	ND	2.0	0.68	0.978	
Bromodichloromethane	ND	0.98	0.23	0.978	
Bromoform	ND	4.9	0.78	0.978	
Bromomethane	ND	20	9.2	0.978	
2-Butanone	6.9	20	3.7	0.978	J
n-Butylbenzene	ND	0.98	0.15	0.978	
sec-Butylbenzene	ND	0.98	0.57	0.978	
tert-Butylbenzene	ND	0.98	0.15	0.978	
Carbon Disulfide	0.47	9.8	0.30	0.978	J
Carbon Tetrachloride	ND	0.98	0.28	0.978	
Chlorobenzene	ND	0.98	0.22	0.978	
Chloroethane	ND	2.0	1.8	0.978	
Chloroform	ND	0.98	0.23	0.978	
Chloromethane	ND	20	0.67	0.978	
2-Chlorotoluene	ND	0.98	0.23	0.978	
4-Chlorotoluene	ND	0.98	0.21	0.978	
Dibromochloromethane	ND	2.0	0.56	0.978	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.978	
1,2-Dibromoethane	ND	0.98	0.25	0.978	
Dibromomethane	ND	0.98	0.76	0.978	
1,2-Dichlorobenzene	ND	0.98	0.22	0.978	
1,3-Dichlorobenzene	ND	0.98	0.17	0.978	
1,4-Dichlorobenzene	ND	0.98	0.22	0.978	
Dichlorodifluoromethane	ND	2.0	0.43	0.978	
1,1-Dichloroethane	ND	0.98	0.98	0.978	
1,2-Dichloroethane	ND	0.98	0.31	0.978	
1,1-Dichloroethene	ND	0.98	0.34	0.978	
c-1,2-Dichloroethene	ND	0.98	0.27	0.978	
t-1,2-Dichloroethene	ND	0.98	0.49	0.978	
1,2-Dichloropropane	ND	0.98	0.43	0.978	
1,3-Dichloropropane	ND	0.98	0.25	0.978	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.978	
1,1-Dichloropropene	ND	2.0	0.32	0.978	
c-1,3-Dichloropropene	ND	0.98	0.25	0.978	
t-1,3-Dichloropropene	ND	2.0	0.59	0.978	
Ethylbenzene	1.4	0.98	0.15	0.978	
2-Hexanone	ND	20	1.7	0.978	
Isopropylbenzene	ND	0.98	0.53	0.978	
p-Isopropyltoluene	ND	0.98	0.62	0.978	
Methylene Chloride	ND	9.8	1.3	0.978	
4-Methyl-2-Pentanone	ND	20	4.2	0.978	
Naphthalene	ND	9.8	0.80	0.978	
n-Propylbenzene	ND	2.0	0.49	0.978	
Styrene	ND	0.98	0.59	0.978	
1,1,1,2-Tetrachloroethane	ND	0.98	0.23	0.978	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.978	
Tetrachloroethene	ND	0.98	0.21	0.978	
Toluene	3.3	0.98	0.50	0.978	
1,2,3-Trichlorobenzene	ND	2.0	0.89	0.978	
1,2,4-Trichlorobenzene	ND	2.0	0.30	0.978	
1,1,1-Trichloroethane	ND	0.98	0.22	0.978	
1,1,2-Trichloroethane	ND	0.98	0.93	0.978	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.8	0.34	0.978	
Trichloroethene	ND	2.0	0.29	0.978	
Trichlorofluoromethane	ND	9.8	0.37	0.978	
1,2,3-Trichloropropane	ND	2.0	0.67	0.978	
1,2,4-Trimethylbenzene	ND	2.0	0.57	0.978	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.978	
Vinyl Acetate	ND	9.8	4.6	0.978	
Vinyl Chloride	ND	0.98	0.49	0.978	
p/m-Xylene	1.0	2.0	0.26	0.978	J
o-Xylene	ND	0.98	0.54	0.978	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.978	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.978	
Diisopropyl Ether (DIPE)	ND	0.98	0.47	0.978	
Ethyl-t-Butyl Ether (ETBE)	ND	0.98	0.49	0.978	
Tert-Amyl-Methyl Ether (TAME)	ND	0.98	0.34	0.978	
Ethanol	ND	490	82	0.978	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 9 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	117	71-155	
Toluene-d8	104	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05	**13-07-1126-5-E**	**07/17/13 09:10**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 20:31**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	58	49	6.1	0.971	
Benzene	3.9	0.97	0.13	0.971	
Bromobenzene	ND	0.97	0.20	0.971	
Bromochloromethane	ND	1.9	0.67	0.971	
Bromodichloromethane	ND	0.97	0.23	0.971	
Bromoform	ND	4.9	0.77	0.971	
Bromomethane	ND	19	9.2	0.971	
2-Butanone	9.1	19	3.7	0.971	J
n-Butylbenzene	ND	0.97	0.15	0.971	
sec-Butylbenzene	ND	0.97	0.56	0.971	
tert-Butylbenzene	ND	0.97	0.15	0.971	
Carbon Disulfide	0.63	9.7	0.30	0.971	J
Carbon Tetrachloride	ND	0.97	0.27	0.971	
Chlorobenzene	ND	0.97	0.22	0.971	
Chloroethane	ND	1.9	1.8	0.971	
Chloroform	ND	0.97	0.23	0.971	
Chloromethane	ND	19	0.67	0.971	
2-Chlorotoluene	ND	0.97	0.22	0.971	
4-Chlorotoluene	ND	0.97	0.21	0.971	
Dibromochloromethane	ND	1.9	0.55	0.971	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.971	
1,2-Dibromoethane	ND	0.97	0.25	0.971	
Dibromomethane	ND	0.97	0.75	0.971	
1,2-Dichlorobenzene	ND	0.97	0.22	0.971	
1,3-Dichlorobenzene	ND	0.97	0.17	0.971	
1,4-Dichlorobenzene	ND	0.97	0.22	0.971	
Dichlorodifluoromethane	ND	1.9	0.43	0.971	
1,1-Dichloroethane	ND	0.97	0.97	0.971	
1,2-Dichloroethane	ND	0.97	0.30	0.971	
1,1-Dichloroethene	ND	0.97	0.34	0.971	
c-1,2-Dichloroethene	ND	0.97	0.27	0.971	
t-1,2-Dichloroethene	ND	0.97	0.49	0.971	
1,2-Dichloropropane	ND	0.97	0.43	0.971	
1,3-Dichloropropane	ND	0.97	0.25	0.971	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.32	0.971	
1,1-Dichloropropene	ND	1.9	0.32	0.971	
c-1,3-Dichloropropene	ND	0.97	0.25	0.971	
t-1,3-Dichloropropene	ND	1.9	0.59	0.971	
Ethylbenzene	1.5	0.97	0.15	0.971	
2-Hexanone	ND	19	1.7	0.971	
Isopropylbenzene	ND	0.97	0.53	0.971	
p-Isopropyltoluene	ND	0.97	0.61	0.971	
Methylene Chloride	ND	9.7	1.3	0.971	
4-Methyl-2-Pentanone	ND	19	4.2	0.971	
Naphthalene	ND	9.7	0.79	0.971	
n-Propylbenzene	ND	1.9	0.49	0.971	
Styrene	ND	0.97	0.59	0.971	
1,1,1,2-Tetrachloroethane	ND	0.97	0.23	0.971	
1,1,2,2-Tetrachloroethane	ND	1.9	0.34	0.971	
Tetrachloroethene	0.41	0.97	0.20	0.971	J
Toluene	3.2	0.97	0.50	0.971	
1,2,3-Trichlorobenzene	ND	1.9	0.89	0.971	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.971	
1,1,1-Trichloroethane	ND	0.97	0.22	0.971	
1,1,2-Trichloroethane	ND	0.97	0.92	0.971	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	0.34	0.971	
Trichloroethene	ND	1.9	0.29	0.971	
Trichlorofluoromethane	ND	9.7	0.36	0.971	
1,2,3-Trichloropropane	ND	1.9	0.67	0.971	
1,2,4-Trimethylbenzene	ND	1.9	0.57	0.971	
1,3,5-Trimethylbenzene	ND	1.9	0.53	0.971	
Vinyl Acetate	ND	9.7	4.6	0.971	
Vinyl Chloride	ND	0.97	0.49	0.971	
p/m-Xylene	0.99	1.9	0.26	0.971	J
o-Xylene	ND	0.97	0.54	0.971	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.29	0.971	
Tert-Butyl Alcohol (TBA)	ND	19	5.0	0.971	
Diisopropyl Ether (DIPE)	ND	0.97	0.47	0.971	
Ethyl-t-Butyl Ether (ETBE)	ND	0.97	0.49	0.971	
Tert-Amyl-Methyl Ether (TAME)	ND	0.97	0.34	0.971	
Ethanol	ND	490	81	0.971	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 12 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	116	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-05-DUP	**13-07-1126-6-E**	**07/17/13 09:15**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 20:58**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	48	48	5.9	0.952	J
Benzene	2.7	0.95	0.12	0.952	
Bromobenzene	ND	0.95	0.20	0.952	
Bromochloromethane	ND	1.9	0.66	0.952	
Bromodichloromethane	ND	0.95	0.22	0.952	
Bromoform	ND	4.8	0.76	0.952	
Bromomethane	ND	19	9.0	0.952	
2-Butanone	6.4	19	3.6	0.952	J
n-Butylbenzene	ND	0.95	0.15	0.952	
sec-Butylbenzene	ND	0.95	0.55	0.952	
tert-Butylbenzene	ND	0.95	0.14	0.952	
Carbon Disulfide	0.64	9.5	0.29	0.952	J
Carbon Tetrachloride	ND	0.95	0.27	0.952	
Chlorobenzene	ND	0.95	0.21	0.952	
Chloroethane	ND	1.9	1.8	0.952	
Chloroform	ND	0.95	0.23	0.952	
Chloromethane	ND	19	0.65	0.952	
2-Chlorotoluene	ND	0.95	0.22	0.952	
4-Chlorotoluene	ND	0.95	0.20	0.952	
Dibromochloromethane	ND	1.9	0.54	0.952	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.952	
1,2-Dibromoethane	ND	0.95	0.24	0.952	
Dibromomethane	ND	0.95	0.74	0.952	
1,2-Dichlorobenzene	ND	0.95	0.22	0.952	
1,3-Dichlorobenzene	ND	0.95	0.17	0.952	
1,4-Dichlorobenzene	ND	0.95	0.21	0.952	
Dichlorodifluoromethane	ND	1.9	0.42	0.952	
1,1-Dichloroethane	ND	0.95	0.95	0.952	
1,2-Dichloroethane	ND	0.95	0.30	0.952	
1,1-Dichloroethene	ND	0.95	0.33	0.952	
c-1,2-Dichloroethene	ND	0.95	0.27	0.952	
t-1,2-Dichloroethene	ND	0.95	0.48	0.952	
1,2-Dichloropropane	ND	0.95	0.42	0.952	
1,3-Dichloropropane	ND	0.95	0.24	0.952	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.31	0.952	
1,1-Dichloropropene	ND	1.9	0.31	0.952	
c-1,3-Dichloropropene	ND	0.95	0.24	0.952	
t-1,3-Dichloropropene	ND	1.9	0.58	0.952	
Ethylbenzene	1.8	0.95	0.14	0.952	
2-Hexanone	ND	19	1.7	0.952	
Isopropylbenzene	ND	0.95	0.52	0.952	
p-Isopropyltoluene	ND	0.95	0.60	0.952	
Methylene Chloride	ND	9.5	1.3	0.952	
4-Methyl-2-Pentanone	ND	19	4.1	0.952	
Naphthalene	ND	9.5	0.77	0.952	
n-Propylbenzene	ND	1.9	0.48	0.952	
Styrene	ND	0.95	0.58	0.952	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	0.952	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.952	
Tetrachloroethene	ND	0.95	0.20	0.952	
Toluene	3.3	0.95	0.49	0.952	
1,2,3-Trichlorobenzene	ND	1.9	0.87	0.952	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.952	
1,1,1-Trichloroethane	ND	0.95	0.21	0.952	
1,1,2-Trichloroethane	ND	0.95	0.90	0.952	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.34	0.952	
Trichloroethene	ND	1.9	0.29	0.952	
Trichlorofluoromethane	ND	9.5	0.36	0.952	
1,2,3-Trichloropropane	ND	1.9	0.65	0.952	
1,2,4-Trimethylbenzene	ND	1.9	0.56	0.952	
1,3,5-Trimethylbenzene	ND	1.9	0.52	0.952	
Vinyl Acetate	ND	9.5	4.5	0.952	
Vinyl Chloride	ND	0.95	0.48	0.952	
p/m-Xylene	1.1	1.9	0.25	0.952	J
o-Xylene	ND	0.95	0.53	0.952	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.952	
Tert-Butyl Alcohol (TBA)	ND	19	4.9	0.952	
Diisopropyl Ether (DIPE)	ND	0.95	0.46	0.952	
Ethyl-t-Butyl Ether (ETBE)	ND	0.95	0.48	0.952	
Tert-Amyl-Methyl Ether (TAME)	ND	0.95	0.34	0.952	
Ethanol	ND	480	80	0.952	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 15 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	100	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-10	**13-07-1126-7-E**	**07/17/13 09:18**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 21:24**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	46	49	6.2	0.988	J
Benzene	3.5	0.99	0.13	0.988	
Bromobenzene	ND	0.99	0.21	0.988	
Bromochloromethane	ND	2.0	0.68	0.988	
Bromodichloromethane	ND	0.99	0.23	0.988	
Bromoform	ND	4.9	0.78	0.988	
Bromomethane	ND	20	9.3	0.988	
2-Butanone	6.8	20	3.7	0.988	J
n-Butylbenzene	ND	0.99	0.15	0.988	
sec-Butylbenzene	ND	0.99	0.57	0.988	
tert-Butylbenzene	ND	0.99	0.15	0.988	
Carbon Disulfide	0.46	9.9	0.30	0.988	J
Carbon Tetrachloride	ND	0.99	0.28	0.988	
Chlorobenzene	ND	0.99	0.22	0.988	
Chloroethane	ND	2.0	1.9	0.988	
Chloroform	ND	0.99	0.24	0.988	
Chloromethane	ND	20	0.68	0.988	
2-Chlorotoluene	ND	0.99	0.23	0.988	
4-Chlorotoluene	ND	0.99	0.21	0.988	
Dibromochloromethane	ND	2.0	0.56	0.988	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	0.988	
1,2-Dibromoethane	ND	0.99	0.25	0.988	
Dibromomethane	ND	0.99	0.77	0.988	
1,2-Dichlorobenzene	ND	0.99	0.23	0.988	
1,3-Dichlorobenzene	ND	0.99	0.17	0.988	
1,4-Dichlorobenzene	ND	0.99	0.22	0.988	
Dichlorodifluoromethane	ND	2.0	0.44	0.988	
1,1-Dichloroethane	ND	0.99	0.99	0.988	
1,2-Dichloroethane	ND	0.99	0.31	0.988	
1,1-Dichloroethene	ND	0.99	0.34	0.988	
c-1,2-Dichloroethene	ND	0.99	0.28	0.988	
t-1,2-Dichloroethene	ND	0.99	0.50	0.988	
1,2-Dichloropropane	ND	0.99	0.43	0.988	
1,3-Dichloropropane	ND	0.99	0.25	0.988	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.9	0.33	0.988	
1,1-Dichloropropene	ND	2.0	0.32	0.988	
c-1,3-Dichloropropene	ND	0.99	0.25	0.988	
t-1,3-Dichloropropene	ND	2.0	0.60	0.988	
Ethylbenzene	1.3	0.99	0.15	0.988	
2-Hexanone	ND	20	1.7	0.988	
Isopropylbenzene	ND	0.99	0.54	0.988	
p-Isopropyltoluene	ND	0.99	0.62	0.988	
Methylene Chloride	ND	9.9	1.3	0.988	
4-Methyl-2-Pentanone	ND	20	4.3	0.988	
Naphthalene	ND	9.9	0.80	0.988	
n-Propylbenzene	ND	2.0	0.50	0.988	
Styrene	ND	0.99	0.60	0.988	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	0.988	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	0.988	
Tetrachloroethene	ND	0.99	0.21	0.988	
Toluene	3.0	0.99	0.51	0.988	
1,2,3-Trichlorobenzene	ND	2.0	0.90	0.988	
1,2,4-Trichlorobenzene	ND	2.0	0.31	0.988	
1,1,1-Trichloroethane	ND	0.99	0.22	0.988	
1,1,2-Trichloroethane	ND	0.99	0.94	0.988	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	0.988	
Trichloroethene	ND	2.0	0.30	0.988	
Trichlorofluoromethane	ND	9.9	0.37	0.988	
1,2,3-Trichloropropane	ND	2.0	0.68	0.988	
1,2,4-Trimethylbenzene	ND	2.0	0.58	0.988	
1,3,5-Trimethylbenzene	ND	2.0	0.54	0.988	
Vinyl Acetate	ND	9.9	4.7	0.988	
Vinyl Chloride	ND	0.99	0.50	0.988	
p/m-Xylene	0.82	2.0	0.26	0.988	J
o-Xylene	ND	0.99	0.55	0.988	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	0.988	
Tert-Butyl Alcohol (TBA)	ND	20	5.1	0.988	
Diisopropyl Ether (DIPE)	ND	0.99	0.48	0.988	
Ethyl-t-Butyl Ether (ETBE)	ND	0.99	0.50	0.988	
Tert-Amyl-Methyl Ether (TAME)	ND	0.99	0.35	0.988	
Ethanol	ND	490	83	0.988	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 18 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	120	71-155	
Toluene-d8	101	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 19 of 30

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-3-15	**13-07-1126-8-E**	**07/17/13 09:25**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 21:51**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	46	48	6.0	0.965	J
Benzene	2.8	0.96	0.13	0.965	
Bromobenzene	ND	0.96	0.20	0.965	
Bromochloromethane	ND	1.9	0.67	0.965	
Bromodichloromethane	ND	0.96	0.22	0.965	
Bromoform	ND	4.8	0.77	0.965	
Bromomethane	ND	19	9.1	0.965	
2-Butanone	5.8	19	3.6	0.965	J
n-Butylbenzene	ND	0.96	0.15	0.965	
sec-Butylbenzene	ND	0.96	0.56	0.965	
tert-Butylbenzene	ND	0.96	0.15	0.965	
Carbon Disulfide	0.50	9.6	0.30	0.965	J
Carbon Tetrachloride	ND	0.96	0.27	0.965	
Chlorobenzene	ND	0.96	0.22	0.965	
Chloroethane	ND	1.9	1.8	0.965	
Chloroform	ND	0.96	0.23	0.965	
Chloromethane	ND	19	0.66	0.965	
2-Chlorotoluene	ND	0.96	0.22	0.965	
4-Chlorotoluene	ND	0.96	0.21	0.965	
Dibromochloromethane	ND	1.9	0.55	0.965	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	0.965	
1,2-Dibromoethane	ND	0.96	0.25	0.965	
Dibromomethane	ND	0.96	0.75	0.965	
1,2-Dichlorobenzene	ND	0.96	0.22	0.965	
1,3-Dichlorobenzene	ND	0.96	0.17	0.965	
1,4-Dichlorobenzene	ND	0.96	0.21	0.965	
Dichlorodifluoromethane	ND	1.9	0.43	0.965	
1,1-Dichloroethane	ND	0.96	0.96	0.965	
1,2-Dichloroethane	ND	0.96	0.30	0.965	
1,1-Dichloroethene	ND	0.96	0.33	0.965	
c-1,2-Dichloroethene	ND	0.96	0.27	0.965	
t-1,2-Dichloroethene	ND	0.96	0.49	0.965	
1,2-Dichloropropane	ND	0.96	0.42	0.965	
1,3-Dichloropropane	ND	0.96	0.24	0.965	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.8	0.32	0.965	
1,1-Dichloropropene	ND	1.9	0.32	0.965	
c-1,3-Dichloropropene	ND	0.96	0.25	0.965	
t-1,3-Dichloropropene	ND	1.9	0.58	0.965	
Ethylbenzene	1.1	0.96	0.15	0.965	
2-Hexanone	ND	19	1.7	0.965	
Isopropylbenzene	ND	0.96	0.53	0.965	
p-Isopropyltoluene	ND	0.96	0.61	0.965	
Methylene Chloride	ND	9.6	1.3	0.965	
4-Methyl-2-Pentanone	ND	19	4.2	0.965	
Naphthalene	ND	9.6	0.79	0.965	
n-Propylbenzene	ND	1.9	0.48	0.965	
Styrene	ND	0.96	0.58	0.965	
1,1,1,2-Tetrachloroethane	ND	0.96	0.23	0.965	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	0.965	
Tetrachloroethene	ND	0.96	0.20	0.965	
Toluene	2.7	0.96	0.50	0.965	
1,2,3-Trichlorobenzene	ND	1.9	0.88	0.965	
1,2,4-Trichlorobenzene	ND	1.9	0.30	0.965	
1,1,1-Trichloroethane	ND	0.96	0.22	0.965	
1,1,2-Trichloroethane	ND	0.96	0.92	0.965	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.6	0.34	0.965	
Trichloroethene	ND	1.9	0.29	0.965	
Trichlorofluoromethane	ND	9.6	0.36	0.965	
1,2,3-Trichloropropane	ND	1.9	0.66	0.965	
1,2,4-Trimethylbenzene	ND	1.9	0.57	0.965	
1,3,5-Trimethylbenzene	ND	1.9	0.53	0.965	
Vinyl Acetate	ND	9.6	4.6	0.965	
Vinyl Chloride	ND	0.96	0.49	0.965	
p/m-Xylene	0.74	1.9	0.26	0.965	J
o-Xylene	ND	0.96	0.54	0.965	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	0.965	
Tert-Butyl Alcohol (TBA)	ND	19	5.0	0.965	
Diisopropyl Ether (DIPE)	ND	0.96	0.47	0.965	
Ethyl-t-Butyl Ether (ETBE)	ND	0.96	0.49	0.965	
Tert-Amyl-Methyl Ether (TAME)	ND	0.96	0.34	0.965	
Ethanol	ND	480	81	0.965	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 21 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	122	71-155	
Toluene-d8	103	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB-1-05	**13-07-1126-9-E**	**07/17/13 12:40**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 22:17**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	29	52	6.5	1.04	J
Benzene	2.3	1.0	0.13	1.04	
Bromobenzene	ND	1.0	0.22	1.04	
Bromochloromethane	ND	2.1	0.72	1.04	
Bromodichloromethane	ND	1.0	0.24	1.04	
Bromoform	ND	5.2	0.83	1.04	
Bromomethane	ND	21	9.8	1.04	
2-Butanone	5.2	21	3.9	1.04	J
n-Butylbenzene	ND	1.0	0.16	1.04	
sec-Butylbenzene	ND	1.0	0.60	1.04	
tert-Butylbenzene	ND	1.0	0.16	1.04	
Carbon Disulfide	ND	10	0.32	1.04	
Carbon Tetrachloride	ND	1.0	0.29	1.04	
Chlorobenzene	ND	1.0	0.23	1.04	
Chloroethane	ND	2.1	2.0	1.04	
Chloroform	ND	1.0	0.25	1.04	
Chloromethane	ND	21	0.72	1.04	
2-Chlorotoluene	ND	1.0	0.24	1.04	
4-Chlorotoluene	ND	1.0	0.22	1.04	
Dibromochloromethane	ND	2.1	0.59	1.04	
1,2-Dibromo-3-Chloropropane	ND	5.2	1.8	1.04	
1,2-Dibromoethane	ND	1.0	0.27	1.04	
Dibromomethane	ND	1.0	0.81	1.04	
1,2-Dichlorobenzene	ND	1.0	0.24	1.04	
1,3-Dichlorobenzene	ND	1.0	0.18	1.04	
1,4-Dichlorobenzene	ND	1.0	0.23	1.04	
Dichlorodifluoromethane	ND	2.1	0.46	1.04	
1,1-Dichloroethane	ND	1.0	1.0	1.04	
1,2-Dichloroethane	ND	1.0	0.33	1.04	
1,1-Dichloroethene	ND	1.0	0.36	1.04	
c-1,2-Dichloroethene	ND	1.0	0.29	1.04	
t-1,2-Dichloroethene	ND	1.0	0.53	1.04	
1,2-Dichloropropane	ND	1.0	0.46	1.04	
1,3-Dichloropropane	ND	1.0	0.26	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.2	0.34	1.04	
1,1-Dichloropropene	ND	2.1	0.34	1.04	
c-1,3-Dichloropropene	ND	1.0	0.26	1.04	
t-1,3-Dichloropropene	ND	2.1	0.63	1.04	
Ethylbenzene	2.3	1.0	0.16	1.04	
2-Hexanone	ND	21	1.8	1.04	
Isopropylbenzene	ND	1.0	0.57	1.04	
p-Isopropyltoluene	ND	1.0	0.65	1.04	
Methylene Chloride	ND	10	1.4	1.04	
4-Methyl-2-Pentanone	ND	21	4.5	1.04	
Naphthalene	ND	10	0.85	1.04	
n-Propylbenzene	ND	2.1	0.52	1.04	
Styrene	ND	1.0	0.63	1.04	
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	1.04	
1,1,2,2-Tetrachloroethane	ND	2.1	0.36	1.04	
Tetrachloroethene	52	1.0	0.22	1.04	
Toluene	4.1	1.0	0.54	1.04	
1,2,3-Trichlorobenzene	ND	2.1	0.95	1.04	
1,2,4-Trichlorobenzene	ND	2.1	0.32	1.04	
1,1,1-Trichloroethane	ND	1.0	0.23	1.04	
1,1,2-Trichloroethane	ND	1.0	0.99	1.04	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.37	1.04	
Trichloroethene	ND	2.1	0.31	1.04	
Trichlorofluoromethane	ND	10	0.39	1.04	
1,2,3-Trichloropropane	ND	2.1	0.71	1.04	
1,2,4-Trimethylbenzene	0.69	2.1	0.61	1.04	J
1,3,5-Trimethylbenzene	ND	2.1	0.57	1.04	
Vinyl Acetate	ND	10	4.9	1.04	
Vinyl Chloride	ND	1.0	0.52	1.04	
p/m-Xylene	1.6	2.1	0.28	1.04	J
o-Xylene	0.71	1.0	0.58	1.04	J
Methyl-t-Butyl Ether (MTBE)	ND	2.1	0.31	1.04	
Tert-Butyl Alcohol (TBA)	ND	21	5.4	1.04	
Diisopropyl Ether (DIPE)	ND	1.0	0.50	1.04	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.53	1.04	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.37	1.04	
Ethanol	ND	520	87	1.04	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 24 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW-2	**13-07-1126-10-E**	**07/17/13 14:30**	**Soil**	**GC/MS PP**	**07/17/13**	**07/23/13 22:44**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	58	54	6.8	1.09	
Benzene	4.2	1.1	0.14	1.09	
Bromobenzene	ND	1.1	0.23	1.09	
Bromochloromethane	ND	2.2	0.75	1.09	
Bromodichloromethane	ND	1.1	0.25	1.09	
Bromoform	ND	5.4	0.87	1.09	
Bromomethane	ND	22	10	1.09	
2-Butanone	9.5	22	4.1	1.09	J
n-Butylbenzene	ND	1.1	0.17	1.09	
sec-Butylbenzene	ND	1.1	0.63	1.09	
tert-Butylbenzene	ND	1.1	0.16	1.09	
Carbon Disulfide	0.71	11	0.33	1.09	J
Carbon Tetrachloride	ND	1.1	0.31	1.09	
Chlorobenzene	ND	1.1	0.24	1.09	
Chloroethane	ND	2.2	2.0	1.09	
Chloroform	ND	1.1	0.26	1.09	
Chloromethane	ND	22	0.75	1.09	
2-Chlorotoluene	ND	1.1	0.25	1.09	
4-Chlorotoluene	ND	1.1	0.23	1.09	
Dibromochloromethane	ND	2.2	0.62	1.09	
1,2-Dibromo-3-Chloropropane	ND	5.4	1.9	1.09	
1,2-Dibromoethane	ND	1.1	0.28	1.09	
Dibromomethane	ND	1.1	0.84	1.09	
1,2-Dichlorobenzene	ND	1.1	0.25	1.09	
1,3-Dichlorobenzene	ND	1.1	0.19	1.09	
1,4-Dichlorobenzene	ND	1.1	0.24	1.09	
Dichlorodifluoromethane	ND	2.2	0.48	1.09	
1,1-Dichloroethane	ND	1.1	1.1	1.09	
1,2-Dichloroethane	ND	1.1	0.34	1.09	
1,1-Dichloroethene	ND	1.1	0.38	1.09	
c-1,2-Dichloroethene	ND	1.1	0.30	1.09	
t-1,2-Dichloroethene	ND	1.1	0.55	1.09	
1,2-Dichloropropane	ND	1.1	0.48	1.09	
1,3-Dichloropropane	ND	1.1	0.28	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.4	0.36	1.09	
1,1-Dichloropropene	ND	2.2	0.36	1.09	
c-1,3-Dichloropropene	ND	1.1	0.28	1.09	
t-1,3-Dichloropropene	ND	2.2	0.66	1.09	
Ethylbenzene	1.6	1.1	0.17	1.09	
2-Hexanone	ND	22	1.9	1.09	
Isopropylbenzene	ND	1.1	0.60	1.09	
p-Isopropyltoluene	ND	1.1	0.69	1.09	
Methylene Chloride	ND	11	1.5	1.09	
4-Methyl-2-Pentanone	ND	22	4.7	1.09	
Naphthalene	ND	11	0.89	1.09	
n-Propylbenzene	ND	2.2	0.55	1.09	
Styrene	ND	1.1	0.66	1.09	
1,1,1,2-Tetrachloroethane	ND	1.1	0.26	1.09	
1,1,2,2-Tetrachloroethane	ND	2.2	0.38	1.09	
Tetrachloroethene	10	1.1	0.23	1.09	
Toluene	3.7	1.1	0.56	1.09	
1,2,3-Trichlorobenzene	ND	2.2	1.0	1.09	
1,2,4-Trichlorobenzene	ND	2.2	0.34	1.09	
1,1,1-Trichloroethane	ND	1.1	0.25	1.09	
1,1,2-Trichloroethane	ND	1.1	1.0	1.09	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.38	1.09	
Trichloroethene	ND	2.2	0.33	1.09	
Trichlorofluoromethane	ND	11	0.41	1.09	
1,2,3-Trichloropropane	ND	2.2	0.75	1.09	
1,2,4-Trimethylbenzene	ND	2.2	0.64	1.09	
1,3,5-Trimethylbenzene	ND	2.2	0.60	1.09	
Vinyl Acetate	ND	11	5.2	1.09	
Vinyl Chloride	ND	1.1	0.55	1.09	
p/m-Xylene	1.1	2.2	0.29	1.09	J
o-Xylene	ND	1.1	0.61	1.09	
Methyl-t-Butyl Ether (MTBE)	ND	2.2	0.32	1.09	
Tert-Butyl Alcohol (TBA)	8.7	22	5.6	1.09	J
Diisopropyl Ether (DIPE)	ND	1.1	0.53	1.09	
Ethyl-t-Butyl Ether (ETBE)	ND	1.1	0.55	1.09	
Tert-Amyl-Methyl Ether (TAME)	ND	1.1	0.38	1.09	
Ethanol	ND	540	91	1.09	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg
Project: KP Chatsworth / WR1767		Page 27 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-312-278**	**N/A**	**Soil**	**GC/MS PP**	**07/23/13**	**07/23/13 17:16**	**130723L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1	
Benzene	ND	1.0	0.13	1	
Bromobenzene	ND	1.0	0.21	1	
Bromochloromethane	ND	2.0	0.69	1	
Bromodichloromethane	ND	1.0	0.23	1	
Bromoform	ND	5.0	0.79	1	
Bromomethane	ND	20	9.4	1	
2-Butanone	ND	20	3.8	1	
n-Butylbenzene	ND	1.0	0.16	1	
sec-Butylbenzene	ND	1.0	0.58	1	
tert-Butylbenzene	ND	1.0	0.15	1	
Carbon Disulfide	ND	10	0.31	1	
Carbon Tetrachloride	ND	1.0	0.28	1	
Chlorobenzene	ND	1.0	0.22	1	
Chloroethane	ND	2.0	1.9	1	
Chloroform	ND	1.0	0.24	1	
Chloromethane	ND	20	0.69	1	
2-Chlorotoluene	ND	1.0	0.23	1	
4-Chlorotoluene	ND	1.0	0.21	1	
Dibromochloromethane	ND	2.0	0.57	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1	
1,2-Dibromoethane	ND	1.0	0.26	1	
Dibromomethane	ND	1.0	0.77	1	
1,2-Dichlorobenzene	ND	1.0	0.23	1	
1,3-Dichlorobenzene	ND	1.0	0.18	1	
1,4-Dichlorobenzene	ND	1.0	0.22	1	
Dichlorodifluoromethane	ND	2.0	0.44	1	
1,1-Dichloroethane	ND	1.0	1.0	1	
1,2-Dichloroethane	ND	1.0	0.31	1	
1,1-Dichloroethene	ND	1.0	0.35	1	
c-1,2-Dichloroethene	ND	1.0	0.28	1	
t-1,2-Dichloroethene	ND	1.0	0.51	1	
1,2-Dichloropropane	ND	1.0	0.44	1	
1,3-Dichloropropane	ND	1.0	0.25	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	5.0	0.33	1	
1,1-Dichloropropene	ND	2.0	0.33	1	
c-1,3-Dichloropropene	ND	1.0	0.25	1	
t-1,3-Dichloropropene	ND	2.0	0.61	1	
Ethylbenzene	ND	1.0	0.15	1	
2-Hexanone	ND	20	1.8	1	
Isopropylbenzene	ND	1.0	0.55	1	
p-Isopropyltoluene	ND	1.0	0.63	1	
Methylene Chloride	ND	10	1.3	1	
4-Methyl-2-Pentanone	ND	20	4.3	1	
Naphthalene	ND	10	0.81	1	
n-Propylbenzene	ND	2.0	0.50	1	
Styrene	ND	1.0	0.60	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1	
Tetrachloroethene	ND	1.0	0.21	1	
Toluene	ND	1.0	0.52	1	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1	
1,1,1-Trichloroethane	ND	1.0	0.23	1	
1,1,2-Trichloroethane	ND	1.0	0.95	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1	
Trichloroethene	ND	2.0	0.30	1	
Trichlorofluoromethane	ND	10	0.38	1	
1,2,3-Trichloropropane	ND	2.0	0.69	1	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1	
Vinyl Acetate	ND	10	4.7	1	
Vinyl Chloride	ND	1.0	0.50	1	
p/m-Xylene	ND	2.0	0.27	1	
o-Xylene	ND	1.0	0.56	1	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1	
Tert-Butyl Alcohol (TBA)	ND	20	5.2	1	
Diisopropyl Ether (DIPE)	ND	1.0	0.48	1	
Ethyl-t-Butyl Ether (ETBE)	ND	1.0	0.51	1	
Tert-Amyl-Methyl Ether (TAME)	ND	1.0	0.35	1	
Ethanol	ND	500	84	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 5035
		Method:	EPA 8260B
		Units:	ug/kg
Project: KP Chatsworth / WR1767			Page 30 of 30

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	100	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-3	**13-07-1126-1-A**	**07/17/13 00:00**	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 21:18**	**130719L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	ND	10	0.41	1	
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767		Page 3 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	107	80-126	
1,2-Dichloroethane-d4	105	80-134	
Toluene-d8	98	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-316-1066**	**N/A**	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 16:21**	**130719L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	20	10	1	
Benzene	ND	0.50	0.14	1	
Bromobenzene	ND	1.0	0.30	1	
Bromochloromethane	ND	1.0	0.48	1	
Bromodichloromethane	ND	1.0	0.21	1	
Bromoform	ND	1.0	0.50	1	
Bromomethane	ND	10	3.9	1	
2-Butanone	ND	10	2.2	1	
n-Butylbenzene	ND	1.0	0.23	1	
sec-Butylbenzene	ND	1.0	0.25	1	
tert-Butylbenzene	ND	1.0	0.28	1	
Carbon Disulfide	0.47	10	0.41	1	J
Carbon Tetrachloride	ND	0.50	0.23	1	
Chlorobenzene	ND	1.0	0.17	1	
Chloroethane	ND	5.0	2.3	1	
Chloroform	ND	1.0	0.46	1	
Chloromethane	ND	10	1.8	1	
2-Chlorotoluene	ND	1.0	0.24	1	
4-Chlorotoluene	ND	1.0	0.13	1	
Dibromochloromethane	ND	1.0	0.25	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.2	1	
1,2-Dibromoethane	ND	1.0	0.36	1	
Dibromomethane	ND	1.0	0.46	1	
1,2-Dichlorobenzene	ND	1.0	0.46	1	
1,3-Dichlorobenzene	ND	1.0	0.40	1	
1,4-Dichlorobenzene	ND	1.0	0.43	1	
Dichlorodifluoromethane	ND	1.0	0.46	1	
1,1-Dichloroethane	ND	1.0	0.28	1	
1,2-Dichloroethane	ND	0.50	0.24	1	
1,1-Dichloroethene	ND	1.0	0.43	1	
c-1,2-Dichloroethene	ND	1.0	0.48	1	
t-1,2-Dichloroethene	ND	1.0	0.37	1	
1,2-Dichloropropane	ND	1.0	0.42	1	
1,3-Dichloropropane	ND	1.0	0.30	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: KP Chatsworth / WR1767

Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	1.0	0.36	1	
1,1-Dichloropropene	ND	1.0	0.46	1	
c-1,3-Dichloropropene	ND	0.50	0.25	1	
t-1,3-Dichloropropene	ND	0.50	0.25	1	
Ethylbenzene	ND	1.0	0.14	1	
2-Hexanone	ND	10	2.1	1	
Isopropylbenzene	ND	1.0	0.58	1	
p-Isopropyltoluene	ND	1.0	0.16	1	
Methylene Chloride	ND	10	0.64	1	
4-Methyl-2-Pentanone	ND	10	4.4	1	
Naphthalene	ND	10	2.5	1	
n-Propylbenzene	ND	1.0	0.17	1	
Styrene	ND	1.0	0.17	1	
1,1,1,2-Tetrachloroethane	ND	1.0	0.40	1	
1,1,2,2-Tetrachloroethane	ND	1.0	0.41	1	
Tetrachloroethene	ND	1.0	0.39	1	
Toluene	ND	1.0	0.24	1	
1,2,3-Trichlorobenzene	ND	1.0	0.51	1	
1,2,4-Trichlorobenzene	ND	1.0	0.50	1	
1,1,1-Trichloroethane	ND	1.0	0.30	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.78	1	
1,1,2-Trichloroethane	ND	1.0	0.38	1	
Trichloroethene	ND	1.0	0.37	1	
Trichlorofluoromethane	ND	10	1.7	1	
1,2,3-Trichloropropane	ND	5.0	0.64	1	
1,2,4-Trimethylbenzene	ND	1.0	0.36	1	
1,3,5-Trimethylbenzene	ND	1.0	0.28	1	
Vinyl Acetate	ND	10	2.8	1	
Vinyl Chloride	ND	0.50	0.30	1	
p/m-Xylene	ND	1.0	0.24	1	
o-Xylene	ND	1.0	0.23	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	0.31	1	
Tert-Butyl Alcohol (TBA)	ND	10	4.6	1	
Diisopropyl Ether (DIPE)	ND	2.0	0.33	1	
Ethyl-t-Butyl Ether (ETBE)	ND	2.0	0.44	1	
Tert-Amyl-Methyl Ether (TAME)	ND	2.0	0.22	1	
Ethanol	ND	100	50	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Calscience Environmental Laboratories, Inc.

Analytical Report

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L
Project: KP Chatsworth / WR1767		Page 6 of 6

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	107	80-126	
1,2-Dichloroethane-d4	105	80-134	
Toluene-d8	99	80-120	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3550B
Method: EPA 8015B (M)
Page 1 of 9

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1149-3	**Soil**	**GC 46**	**07/18/13**	**07/19/13 06:03**	**130718S16**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Motor Oil	ND	400.0	245.8	61	266.0	66	64-130	8	0-15	3

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767			Page 2 of 9

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1149-3	**Soil**	**GC 46**	**07/18/13**	**07/19/13 05:14**	**130718S15**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	426.7	107	439.3	110	64-130	3	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1175-44	**Soil**	**ICP 7300**	**07/18/13**	**07/19/13 20:17**	**130718S05**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	7.023	28	6.863	27	50-115	2	0-20	3
Arsenic	1.732	25.00	26.07	97	24.63	92	75-125	6	0-20	
Barium	59.37	25.00	85.35	104	84.33	100	75-125	1	0-20	
Beryllium	0.4017	25.00	26.22	103	25.73	101	75-125	2	0-20	
Cadmium	ND	25.00	25.39	102	24.84	99	75-125	2	0-20	
Chromium	9.926	25.00	34.95	100	34.25	97	75-125	2	0-20	
Cobalt	6.376	25.00	32.45	104	31.76	102	75-125	2	0-20	
Copper	8.477	25.00	34.75	105	34.28	103	75-125	1	0-20	
Lead	3.506	25.00	28.27	99	27.72	97	75-125	2	0-20	
Molybdenum	ND	25.00	22.65	91	22.03	88	75-125	3	0-20	
Nickel	6.119	25.00	32.35	105	31.59	102	75-125	2	0-20	
Selenium	ND	25.00	22.05	88	21.98	88	75-125	0	0-20	
Silver	ND	12.50	12.20	98	11.99	96	75-125	2	0-20	
Thallium	ND	25.00	22.42	90	21.82	87	75-125	3	0-20	
Vanadium	21.30	25.00	46.14	99	45.17	95	75-125	2	0-20	
Zinc	24.65	25.00	50.68	104	49.73	100	75-125	2	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 7471A Total
Method: EPA 7471A
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Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1175-44	**Soil**	**Mercury**	**07/18/13**	**07/18/13 18:11**	**130718S08**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.2169	0.8350	1.059	101	1.021	96	71-137	4	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1173-3	**Soil**	**GC 58**	**07/19/13**	**07/20/13 04:07**	**130719S10**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	98.96	99	99.22	99	50-135	0	0-20	
Aroclor-1260	ND	100.0	96.42	96	96.30	96	50-135	0	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SB-3-05	**Soil**	**GC/MS SS**	**07/19/13**	**07/24/13 00:03**	**130719S12**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,6-Dichlorophenol	ND	10.00	9.924	99	9.947	99	60-140	0	0-30	
Acenaphthene	ND	10.00	9.580	96	9.523	95	49-133	1	0-20	
Acenaphthylene	ND	10.00	9.456	95	9.397	94	60-140	1	0-30	
Aniline	ND	10.00	8.813	88	8.784	88	60-140	0	0-30	
Anthracene	ND	10.00	9.474	95	9.543	95	60-140	1	0-30	
Azobenzene	ND	10.00	9.749	97	9.796	98	60-140	0	0-30	
Benzidine	ND	10.00	2.297	23	2.328	23	60-140	1	0-30	3
Benzo (a) Anthracene	ND	10.00	9.696	97	9.701	97	60-140	0	0-30	
Benzo (a) Pyrene	ND	10.00	9.915	99	9.910	99	60-140	0	0-30	
Benzo (b) Fluoranthene	ND	10.00	10.10	101	10.04	100	60-140	1	0-30	
Benzo (g,h,i) Perylene	ND	10.00	6.936	69	6.460	65	60-140	7	0-30	
Benzo (k) Fluoranthene	ND	10.00	7.733	77	8.066	81	60-140	4	0-30	
Benzoic Acid	ND	10.00	1.653	17	1.740	17	20-140	5	0-30	3
Benzyl Alcohol	ND	10.00	10.06	101	9.971	100	60-140	1	0-30	
Bis(2-Chloroethoxy) Methane	ND	10.00	9.676	97	9.690	97	60-140	0	0-30	
Bis(2-Chloroethyl) Ether	ND	10.00	8.652	87	8.624	86	60-140	0	0-30	
Bis(2-Chloroisopropyl) Ether	ND	10.00	9.754	98	9.572	96	60-140	2	0-30	
Bis(2-Ethylhexyl) Phthalate	ND	10.00	8.992	90	9.076	91	60-140	1	0-30	
4-Bromophenyl-Phenyl Ether	ND	10.00	9.263	93	9.258	93	60-140	0	0-30	
Butyl Benzyl Phthalate	ND	10.00	9.288	93	9.189	92	60-140	1	0-30	
4-Chloro-3-Methylphenol	ND	10.00	10.16	102	10.03	100	50-128	1	0-20	
4-Chloroaniline	ND	10.00	9.495	95	9.568	96	60-140	1	0-30	
2-Chloronaphthalene	ND	10.00	9.351	94	9.334	93	60-140	0	0-30	
2-Chlorophenol	ND	10.00	9.747	97	9.764	98	57-111	0	0-20	
4-Chlorophenyl-Phenyl Ether	ND	10.00	9.380	94	9.260	93	60-140	1	0-30	
Chrysene	ND	10.00	9.460	95	9.451	95	60-140	0	0-30	
Di-n-Butyl Phthalate	ND	10.00	9.238	92	9.297	93	60-140	1	0-30	
Di-n-Octyl Phthalate	ND	10.00	9.200	92	9.465	95	60-140	3	0-30	
Dibenz (a,h) Anthracene	ND	10.00	8.378	84	7.917	79	60-140	6	0-30	
Dibenzofuran	ND	10.00	9.856	99	9.823	98	60-140	0	0-30	
1,2-Dichlorobenzene	ND	10.00	9.382	94	9.333	93	60-140	1	0-30	
1,3-Dichlorobenzene	ND	10.00	9.222	92	9.216	92	60-140	0	0-30	
1,4-Dichlorobenzene	ND	10.00	9.363	94	9.411	94	49-127	1	0-20	
3,3'-Dichlorobenzidine	ND	10.00	16.39	164	16.51	165	60-140	1	0-30	3
2,4-Dichlorophenol	ND	10.00	9.834	98	9.898	99	60-140	1	0-30	
Diethyl Phthalate	ND	10.00	9.554	96	9.451	95	60-140	1	0-30	
Dimethyl Phthalate	ND	10.00	9.464	95	9.493	95	60-140	0	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
2,4-Dimethylphenol	ND	10.00	8.771	88	8.822	88	60-140	1	0-30	
4,6-Dinitro-2-Methylphenol	ND	10.00	9.003	90	9.582	96	60-140	6	0-30	
2,4-Dinitrophenol	ND	10.00	7.565	76	8.399	84	60-140	10	0-30	
2,4-Dinitrotoluene	ND	10.00	10.05	101	10.10	101	50-128	0	0-20	
2,6-Dinitrotoluene	ND	10.00	9.670	97	9.633	96	60-140	0	0-30	
Fluoranthene	ND	10.00	9.321	93	9.370	94	60-140	1	0-30	
Fluorene	ND	10.00	9.672	97	9.677	97	60-140	0	0-30	
Hexachloro-1,3-Butadiene	ND	10.00	9.248	92	9.202	92	60-140	0	0-30	
Hexachlorobenzene	ND	10.00	8.894	89	9.059	91	60-140	2	0-30	
Hexachlorocyclopentadiene	ND	10.00	7.557	76	7.561	76	60-140	0	0-30	
Hexachloroethane	ND	10.00	9.048	90	9.005	90	60-140	0	0-30	
Indeno (1,2,3-c,d) Pyrene	ND	10.00	8.951	90	8.791	88	60-140	2	0-30	
Isophorone	ND	10.00	9.835	98	9.871	99	60-140	0	0-30	
2-Methylnaphthalene	ND	10.00	9.865	99	9.852	99	60-140	0	0-30	
1-Methylnaphthalene	ND	10.00	9.699	97	9.657	97	60-140	0	0-30	
2-Methylphenol	ND	10.00	10.05	101	10.02	100	60-140	0	0-30	
3/4-Methylphenol	ND	20.00	20.99	105	20.74	104	60-140	1	0-30	
N-Nitroso-di-n-propylamine	ND	10.00	9.741	97	9.589	96	54-144	2	0-20	
N-Nitrosodimethylamine	ND	10.00	9.168	92	9.131	91	60-140	0	0-30	
N-Nitrosodiphenylamine	ND	10.00	11.45	115	11.49	115	60-140	0	0-30	
Naphthalene	ND	10.00	9.539	95	9.540	95	60-140	0	0-30	
4-Nitroaniline	ND	10.00	13.50	135	13.18	132	60-140	2	0-30	
3-Nitroaniline	ND	10.00	11.87	119	11.79	118	60-140	1	0-30	
2-Nitroaniline	ND	10.00	9.972	100	9.909	99	60-140	1	0-30	
Nitrobenzene	ND	10.00	9.387	94	9.372	94	60-140	0	0-30	
4-Nitrophenol	ND	10.00	12.09	121	12.00	120	30-144	1	0-20	
2-Nitrophenol	ND	10.00	9.189	92	9.485	95	60-140	3	0-30	
Pentachlorophenol	ND	10.00	10.05	100	10.26	103	29-113	2	0-30	
Phenanthrene	ND	10.00	9.463	95	9.524	95	60-140	1	0-30	
Phenol	ND	10.00	10.07	101	9.990	100	57-123	1	0-20	
Pyrene	ND	10.00	9.986	100	9.841	98	47-149	1	0-20	
Pyridine	ND	10.00	9.043	90	8.922	89	60-140	1	0-30	
1,2,4-Trichlorobenzene	ND	10.00	9.775	98	9.861	99	42-132	1	0-20	
2,4,6-Trichlorophenol	ND	10.00	9.575	96	9.577	96	60-140	0	0-30	
2,4,5-Trichlorophenol	ND	10.00	10.27	103	10.34	103	60-140	1	0-30	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
13-07-1038-4	**Aqueous**	**GC/MS GGG**	**07/19/13**	**07/19/13 17:37**	**130719S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	48.52	97	49.20	98	70-130	1	0-20	
Benzene	ND	50.00	44.38	89	42.36	85	78-120	5	0-20	
Bromobenzene	ND	50.00	48.54	97	45.72	91	70-130	6	0-20	
Bromochloromethane	ND	50.00	52.00	104	48.36	97	70-130	7	0-20	
Bromodichloromethane	ND	50.00	45.31	91	44.01	88	70-130	3	0-20	
Bromoform	ND	50.00	47.76	96	47.32	95	70-130	1	0-20	
Bromomethane	ND	50.00	28.15	56	35.51	71	70-130	23	0-20	3,4
2-Butanone	ND	50.00	52.62	105	51.86	104	70-130	1	0-20	
n-Butylbenzene	ND	50.00	51.56	103	48.93	98	70-130	5	0-25	
sec-Butylbenzene	ND	50.00	47.13	94	44.74	89	70-130	5	0-20	
tert-Butylbenzene	ND	50.00	49.95	100	47.31	95	70-130	5	0-20	
Carbon Disulfide	ND	50.00	44.78	90	40.88	82	70-130	9	0-20	
Carbon Tetrachloride	ND	50.00	45.85	92	42.32	85	69-139	8	0-20	
Chlorobenzene	ND	50.00	46.11	92	43.73	87	70-130	5	0-20	
Chloroethane	ND	50.00	57.65	115	53.45	107	70-130	8	0-20	
Chloroform	ND	50.00	48.53	97	45.63	91	70-130	6	0-20	
Chloromethane	ND	50.00	47.91	96	47.17	94	70-130	2	0-20	
2-Chlorotoluene	ND	50.00	44.90	90	42.09	84	70-130	6	0-20	
4-Chlorotoluene	ND	50.00	44.36	89	42.08	84	70-130	5	0-20	
Dibromochloromethane	ND	50.00	45.57	91	44.36	89	70-130	3	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	45.29	91	45.46	91	70-130	0	0-20	
1,2-Dibromoethane	ND	50.00	48.32	97	47.75	96	80-123	1	0-20	
Dibromomethane	ND	50.00	48.67	97	47.70	95	70-130	2	0-20	
1,2-Dichlorobenzene	ND	50.00	46.46	93	44.55	89	76-120	4	0-20	
1,3-Dichlorobenzene	ND	50.00	46.36	93	43.99	88	70-130	5	0-20	
1,4-Dichlorobenzene	ND	50.00	50.09	100	48.42	97	70-130	3	0-20	
Dichlorodifluoromethane	ND	50.00	60.81	122	56.04	112	70-130	8	0-20	
1,1-Dichloroethane	ND	50.00	47.87	96	44.99	90	70-130	6	0-20	
1,2-Dichloroethane	ND	50.00	49.51	99	48.68	97	76-130	2	0-20	
1,1-Dichloroethene	ND	50.00	53.76	108	49.33	99	70-130	9	0-27	
c-1,2-Dichloroethene	ND	50.00	49.51	99	46.71	93	70-130	6	0-20	
t-1,2-Dichloroethene	ND	50.00	50.57	101	46.95	94	70-130	7	0-20	
1,2-Dichloropropane	ND	50.00	48.05	96	45.96	92	70-130	4	0-25	
1,3-Dichloropropane	ND	50.00	45.84	92	44.96	90	70-130	2	0-20	
2,2-Dichloropropane	ND	50.00	63.06	126	55.71	111	70-130	12	0-20	
1,1-Dichloropropene	ND	50.00	51.57	103	47.65	95	70-130	8	0-20	
c-1,3-Dichloropropene	ND	50.00	49.59	99	47.68	95	70-130	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	ND	50.00	44.49	89	42.94	86	70-130	4	0-20	
Ethylbenzene	ND	50.00	48.09	96	44.88	90	73-127	7	0-20	
2-Hexanone	ND	50.00	50.32	101	49.79	100	70-130	1	0-20	
Isopropylbenzene	ND	50.00	45.89	92	43.06	86	70-130	6	0-20	
p-Isopropyltoluene	ND	50.00	47.38	95	44.73	89	70-130	6	0-20	
Methylene Chloride	ND	50.00	51.80	104	49.54	99	70-130	4	0-20	
4-Methyl-2-Pentanone	ND	50.00	52.47	105	51.86	104	70-130	1	0-20	
Naphthalene	ND	50.00	52.67	105	51.78	104	70-130	2	0-20	
n-Propylbenzene	ND	50.00	44.79	90	41.83	84	70-130	7	0-20	
Styrene	ND	50.00	37.94	76	35.10	70	70-130	8	0-20	
1,1,1,2-Tetrachloroethane	ND	50.00	44.94	90	42.91	86	70-130	5	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	52.71	105	52.53	105	70-130	0	0-20	
Tetrachloroethene	ND	50.00	33.51	67	30.78	62	70-130	8	0-20	3
Toluene	ND	50.00	47.75	96	44.87	90	72-126	6	0-20	
1,2,3-Trichlorobenzene	ND	50.00	50.67	101	49.32	99	70-130	3	0-20	
1,2,4-Trichlorobenzene	ND	50.00	50.62	101	49.46	99	70-130	2	0-20	
1,1,1-Trichloroethane	ND	50.00	48.39	97	45.06	90	70-130	7	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	54.37	109	50.64	101	70-130	7	0-20	
1,1,2-Trichloroethane	ND	50.00	46.80	94	45.35	91	70-130	3	0-20	
Trichloroethene	ND	50.00	44.78	90	41.73	83	74-122	7	0-20	
Trichlorofluoromethane	ND	50.00	57.38	115	53.09	106	70-130	8	0-20	
1,2,3-Trichloropropane	ND	50.00	50.71	101	50.04	100	70-130	1	0-20	
1,2,4-Trimethylbenzene	ND	50.00	49.30	99	46.84	94	70-130	5	0-20	
1,3,5-Trimethylbenzene	ND	50.00	50.86	102	47.80	96	70-130	6	0-20	
Vinyl Acetate	ND	50.00	55.81	112	52.29	105	70-130	7	0-20	
Vinyl Chloride	ND	50.00	49.46	99	45.31	91	65-131	9	0-24	
p/m-Xylene	ND	100.0	91.04	91	85.43	85	70-130	6	0-20	
o-Xylene	ND	50.00	43.04	86	40.95	82	70-130	5	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	45.82	92	44.59	89	69-123	3	0-20	
Tert-Butyl Alcohol (TBA)	ND	250.0	245.8	98	249.3	100	65-131	1	0-22	
Diisopropyl Ether (DIPE)	ND	50.00	48.14	96	46.20	92	68-128	4	0-22	
Ethyl-t-Butyl Ether (ETBE)	ND	50.00	50.03	100	48.25	96	69-123	4	0-21	
Tert-Amyl-Methyl Ether (TAME)	ND	50.00	44.52	89	43.67	87	70-124	2	0-20	
Ethanol	ND	500.0	554.6	111	552.0	110	41-155	0	0-35	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS/PDSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-07-1175-44	**Soil**	**ICP 7300**	**07/18/13 00:00**	**07/19/13 20:19**	**130718S05**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	25.38	102	24.91	100	75-125	2	0-20	
Arsenic	1.732	25.00	24.76	92	24.80	92	75-125	0	0-20	
Barium	59.37	25.00	84.66	101	84.52	101	75-125	0	0-20	
Beryllium	0.4017	25.00	25.12	99	24.97	98	75-125	1	0-20	
Cadmium	ND	25.00	24.26	97	24.19	97	75-125	0	0-20	
Chromium	9.926	25.00	34.33	98	33.90	96	75-125	1	0-20	
Cobalt	6.376	25.00	31.44	100	31.34	100	75-125	0	0-20	
Copper	8.477	25.00	33.26	99	33.24	99	75-125	0	0-20	
Lead	3.506	25.00	27.31	95	27.21	95	75-125	0	0-20	
Molybdenum	ND	25.00	23.96	96	23.68	95	75-125	1	0-20	
Nickel	6.119	25.00	31.37	101	31.06	100	75-125	1	0-20	
Selenium	ND	25.00	22.15	89	21.66	87	75-125	2	0-20	
Silver	ND	12.50	11.55	92	11.42	91	75-125	1	0-20	
Thallium	ND	25.00	21.73	87	21.62	86	75-125	1	0-20	
Vanadium	21.30	25.00	45.12	95	44.90	94	75-125	0	0-20	
Zinc	24.65	25.00	49.38	99	49.46	99	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - PDS/PDSD

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: KP Chatsworth / WR1767			Page 2 of 2

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
13-07-1175-44	**Soil**	**Mercury**	**07/18/13 00:00**	**07/18/13 18:16**	**130718S08**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.2169	0.8350	1.101	106	1.085	104	75-125	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767			Page 1 of 14

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-420-507	**Soil**	**GC 46**	**07/19/13 05:47**	**130718B16**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Motor Oil	400.0	333.6	83	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)
Project: KP Chatsworth / WR1767			Page 2 of 14

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-15-422-605	**Soil**	**GC 46**	**07/19/13 04:57**	**130718B15**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Diesel	400.0	455.2	114	75-123	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received: 07/17/13
1111 Broadway, FL 6TH	Work Order: 13-07-1126
Oakland, CA 94607-4172	Preparation: EPA 5035
	Method: EPA 8015B (M)
Project: KP Chatsworth / WR1767	Page 3 of 14

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-285-4792	**Soil**	**GC 4**	**07/18/13**	**07/18/13 18:21**	**130718B01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	1.619	81	1.383	69	55-139	16	0-18	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3050B
Method: EPA 6010B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-17064	**Soil**	**ICP 7300**	**07/18/13**	**07/19/13 20:14**	**130718L05**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	25.00	27.57	110	26.91	108	80-120	73-127	2	0-20	
Arsenic	25.00	25.92	104	25.34	101	80-120	73-127	2	0-20	
Barium	25.00	27.95	112	27.59	110	80-120	73-127	1	0-20	
Beryllium	25.00	26.63	107	26.33	105	80-120	73-127	1	0-20	
Cadmium	25.00	26.96	108	26.61	106	80-120	73-127	1	0-20	
Chromium	25.00	26.26	105	25.96	104	80-120	73-127	1	0-20	
Cobalt	25.00	28.13	113	27.67	111	80-120	73-127	2	0-20	
Copper	25.00	25.44	102	25.18	101	80-120	73-127	1	0-20	
Lead	25.00	25.74	103	25.26	101	80-120	73-127	2	0-20	
Molybdenum	25.00	26.54	106	26.10	104	80-120	73-127	2	0-20	
Nickel	25.00	27.77	111	27.29	109	80-120	73-127	2	0-20	
Selenium	25.00	24.94	100	24.62	98	80-120	73-127	1	0-20	
Silver	12.50	12.77	102	12.64	101	80-120	73-127	1	0-20	
Thallium	25.00	25.87	103	25.46	102	80-120	73-127	2	0-20	
Vanadium	25.00	25.75	103	25.42	102	80-120	73-127	1	0-20	
Zinc	25.00	25.53	102	25.12	100	80-120	73-127	2	0-20	

Total number of LCS compounds: 16
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants		Date Received:	07/17/13
1111 Broadway, FL 6TH		Work Order:	13-07-1126
Oakland, CA 94607-4172		Preparation:	EPA 7471A Total
		Method:	EPA 7471A
Project: KP Chatsworth / WR1767			Page 5 of 14

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-007-9452	**Soil**	**Mercury**	**07/18/13**	**07/18/13 17:43**	**130718L08**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.8101	97	0.8161	98	85-121	1	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8082

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-12-535-2188	**Soil**	**GC 58**	**07/20/13 05:01**	**130719L10**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0	88.48	88	50-135	
Aroclor-1260	100.0	81.02	81	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-12-620-28	**Soil**	**GC/MS SS**	**07/23/13 16:15**	**130719L12**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
2,6-Dichlorophenol	10.00	9.745	97	60-110	52-118	
Acenaphthene	10.00	9.436	94	45-110	34-121	
Acenaphthylene	10.00	9.228	92	45-105	35-115	
Aniline	10.00	7.402	74	60-140	47-153	
Anthracene	10.00	9.132	91	55-105	47-113	
Azobenzene	10.00	9.578	96	60-140	47-153	
Benzidine	10.00	0.5087	5	60-140	47-153	X
Benzo (a) Anthracene	10.00	9.541	95	60-110	52-118	
Benzo (a) Pyrene	10.00	10.28	103	60-110	52-118	
Benzo (b) Fluoranthene	10.00	10.72	107	60-115	51-124	
Benzo (g,h,i) Perylene	10.00	8.154	82	60-125	49-136	
Benzo (k) Fluoranthene	10.00	7.784	78	60-125	49-136	
Benzoic Acid	10.00	6.729	67	30-140	12-158	
Benzyl Alcohol	10.00	8.520	85	60-125	49-136	
Bis(2-Chloroethoxy) Methane	10.00	9.432	94	60-110	52-118	
Bis(2-Chloroethyl) Ether	10.00	8.457	85	60-105	52-112	
Bis(2-Chloroisopropyl) Ether	10.00	9.391	94	60-115	51-124	
Bis(2-Ethylhexyl) Phthalate	10.00	9.647	96	60-125	49-136	
4-Bromophenyl-Phenyl Ether	10.00	8.912	89	60-115	51-124	
Butyl Benzyl Phthalate	10.00	9.185	92	60-125	49-136	
4-Chloro-3-Methylphenol	10.00	9.570	96	61-115	52-124	
4-Chloroaniline	10.00	8.219	82	60-140	47-153	
2-Chloronaphthalene	10.00	9.289	93	60-105	52-112	
2-Chlorophenol	10.00	9.570	96	60-105	52-112	
4-Chlorophenyl-Phenyl Ether	10.00	9.115	91	60-110	52-118	
Chrysene	10.00	9.281	93	60-110	52-118	
Di-n-Butyl Phthalate	10.00	9.375	94	60-110	52-118	
Di-n-Octyl Phthalate	10.00	10.25	103	60-130	48-142	
Dibenz (a,h) Anthracene	10.00	9.390	94	60-125	49-136	
Dibenzofuran	10.00	9.771	98	60-105	52-112	
1,2-Dichlorobenzene	10.00	8.850	88	60-95	54-101	
1,3-Dichlorobenzene	10.00	8.641	86	60-100	53-107	
1,4-Dichlorobenzene	10.00	8.804	88	61-105	54-112	
3,3'-Dichlorobenzidine	10.00	13.95	140	60-140	47-153	
2,4-Dichlorophenol	10.00	9.675	97	60-110	52-118	
Diethyl Phthalate	10.00	9.376	94	60-115	51-124	
Dimethyl Phthalate	10.00	9.304	93	60-110	52-118	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 3545
Method: EPA 8270C

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
2,4-Dimethylphenol	10.00	8.845	88	60-105	52-112	
4,6-Dinitro-2-Methylphenol	10.00	9.955	100	60-135	48-148	
2,4-Dinitrophenol	10.00	10.19	102	60-130	48-142	
2,4-Dinitrotoluene	10.00	9.771	98	50-115	39-126	
2,6-Dinitrotoluene	10.00	9.447	94	60-110	52-118	
Fluoranthene	10.00	9.321	93	60-115	51-124	
Fluorene	10.00	9.426	94	60-110	52-118	
Hexachloro-1,3-Butadiene	10.00	8.912	89	60-115	51-124	
Hexachlorobenzene	10.00	8.837	88	60-120	50-130	
Hexachlorocyclopentadiene	10.00	7.473	75	60-140	47-153	
Hexachloroethane	10.00	8.412	84	60-110	52-118	
Indeno (1,2,3-c,d) Pyrene	10.00	10.06	101	60-120	50-130	
Isophorone	10.00	9.740	97	60-110	52-118	
2-Methylnaphthalene	10.00	9.621	96	45-105	35-115	
1-Methylnaphthalene	10.00	9.487	95	60-140	47-153	
2-Methylphenol	10.00	9.175	92	60-105	52-112	
3/4-Methylphenol	20.00	17.70	88	60-105	52-112	
N-Nitroso-di-n-propylamine	10.00	9.066	91	64-115	56-124	
N-Nitrosodimethylamine	10.00	6.558	66	60-115	51-124	
N-Nitrosodiphenylamine	10.00	11.25	112	60-115	51-124	
Naphthalene	10.00	9.373	94	60-105	52-112	
4-Nitroaniline	10.00	11.44	114	60-115	51-124	
3-Nitroaniline	10.00	10.30	103	60-110	52-118	
2-Nitroaniline	10.00	9.387	94	45-120	32-132	
Nitrobenzene	10.00	9.275	93	60-115	51-124	
4-Nitrophenol	10.00	6.550	65	38-140	21-157	
2-Nitrophenol	10.00	9.387	94	60-110	52-118	
Pentachlorophenol	10.00	9.964	100	38-120	24-134	
Phenanthrene	10.00	9.417	94	60-110	52-118	
Phenol	10.00	5.557	56	59-125	48-136	ME
Pyrene	10.00	9.232	92	51-100	43-108	
Pyridine	10.00	3.673	37	60-140	47-153	X
1,2,4-Trichlorobenzene	10.00	9.660	97	58-110	49-119	
2,4,6-Trichlorophenol	10.00	9.747	97	60-110	52-118	
2,4,5-Trichlorophenol	10.00	9.735	97	60-110	52-118	

Total number of LCS compounds: 72
Total number of ME compounds: 1
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 3545
	Method:	EPA 8270C
Project: KP Chatsworth / WR1767		Page 9 of 14

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-278	**Soil**	**GC/MS PP**	**07/23/13**	**07/23/13 15:18**	**130723L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	82.50	165	82.66	165	80-120	73-127	0	0-20	X
Benzene	50.00	48.45	97	44.20	88	80-120	73-127	9	0-20	
Bromobenzene	50.00	49.06	98	45.81	92	80-120	73-127	7	0-20	
Bromochloromethane	50.00	50.06	100	46.07	92	80-120	73-127	8	0-20	
Bromodichloromethane	50.00	53.30	107	48.04	96	80-120	73-127	10	0-20	
Bromoform	50.00	52.45	105	49.19	98	80-120	73-127	6	0-20	
Bromomethane	50.00	49.70	99	47.67	95	80-120	73-127	4	0-20	
2-Butanone	50.00	66.29	133	64.18	128	80-120	73-127	3	0-20	X
n-Butylbenzene	50.00	53.00	106	47.90	96	77-123	69-131	10	0-25	
sec-Butylbenzene	50.00	47.06	94	43.31	87	80-120	73-127	8	0-20	
tert-Butylbenzene	50.00	47.24	94	43.36	87	80-120	73-127	9	0-20	
Carbon Disulfide	50.00	43.04	86	39.31	79	80-120	73-127	9	0-20	ME
Carbon Tetrachloride	50.00	54.85	110	50.26	101	65-137	53-149	9	0-20	
Chlorobenzene	50.00	45.21	90	42.00	84	80-120	73-127	7	0-20	
Chloroethane	50.00	48.89	98	47.74	95	80-120	73-127	2	0-20	
Chloroform	50.00	52.92	106	48.49	97	80-120	73-127	9	0-20	
Chloromethane	50.00	51.07	102	46.56	93	80-120	73-127	9	0-20	
2-Chlorotoluene	50.00	48.77	98	44.56	89	80-120	73-127	9	0-20	
4-Chlorotoluene	50.00	46.27	93	41.79	84	80-120	73-127	10	0-20	
Dibromochloromethane	50.00	50.29	101	46.62	93	80-120	73-127	8	0-20	
1,2-Dibromo-3-Chloropropane	50.00	51.86	104	47.20	94	80-120	73-127	9	0-20	
1,2-Dibromoethane	50.00	52.12	104	47.96	96	80-120	73-127	8	0-20	
Dibromomethane	50.00	51.03	102	47.22	94	80-120	73-127	8	0-20	
1,2-Dichlorobenzene	50.00	45.41	91	41.36	83	80-120	73-127	9	0-20	
1,3-Dichlorobenzene	50.00	44.54	89	40.95	82	80-120	73-127	8	0-20	
1,4-Dichlorobenzene	50.00	48.36	97	43.15	86	80-120	73-127	11	0-20	
Dichlorodifluoromethane	50.00	64.33	129	61.08	122	80-120	73-127	5	0-20	X,ME
1,1-Dichloroethane	50.00	51.51	103	46.19	92	80-120	73-127	11	0-20	
1,2-Dichloroethane	50.00	53.63	107	48.86	98	80-120	73-127	9	0-20	
1,1-Dichloroethene	50.00	48.53	97	44.28	89	68-128	58-138	9	0-20	
c-1,2-Dichloroethene	50.00	51.92	104	48.49	97	80-120	73-127	7	0-20	
t-1,2-Dichloroethene	50.00	53.41	107	49.54	99	80-120	73-127	8	0-20	
1,2-Dichloropropane	50.00	51.03	102	46.39	93	79-115	73-121	10	0-25	
1,3-Dichloropropane	50.00	48.78	98	46.27	93	80-120	73-127	5	0-20	
2,2-Dichloropropane	50.00	55.65	111	50.73	101	80-120	73-127	9	0-20	
1,1-Dichloropropene	50.00	54.98	110	50.18	100	80-120	73-127	9	0-20	
c-1,3-Dichloropropene	50.00	57.92	116	53.71	107	80-120	73-127	8	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5035
Method: EPA 8260B

Project: KP Chatsworth / WR1767

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
t-1,3-Dichloropropene	50.00	51.04	102	47.55	95	80-120	73-127	7	0-20	
Ethylbenzene	50.00	50.63	101	46.24	92	80-120	73-127	9	0-20	
2-Hexanone	50.00	58.78	118	54.60	109	80-120	73-127	7	0-20	
Isopropylbenzene	50.00	48.63	97	44.51	89	80-120	73-127	9	0-20	
p-Isopropyltoluene	50.00	47.96	96	43.51	87	80-120	73-127	10	0-20	
Methylene Chloride	50.00	51.52	103	47.13	94	80-120	73-127	9	0-20	
4-Methyl-2-Pentanone	50.00	56.70	113	54.00	108	80-120	73-127	5	0-20	
Naphthalene	50.00	52.78	106	47.50	95	80-120	73-127	11	0-20	
n-Propylbenzene	50.00	47.23	94	43.12	86	80-120	73-127	9	0-20	
Styrene	50.00	49.86	100	46.54	93	80-120	73-127	7	0-20	
1,1,1,2-Tetrachloroethane	50.00	50.04	100	45.72	91	80-120	73-127	9	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.41	103	48.93	98	80-120	73-127	5	0-20	
Tetrachloroethene	50.00	45.55	91	42.24	84	80-120	73-127	8	0-20	
Toluene	50.00	50.65	101	45.91	92	80-120	73-127	10	0-20	
1,2,3-Trichlorobenzene	50.00	53.62	107	48.26	97	80-120	73-127	11	0-20	
1,2,4-Trichlorobenzene	50.00	53.98	108	47.26	95	80-120	73-127	13	0-20	
1,1,1-Trichloroethane	50.00	55.81	112	49.71	99	80-120	73-127	12	0-20	
1,1,2-Trichloroethane	50.00	50.93	102	46.99	94	80-120	73-127	8	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	50.87	102	45.34	91	80-120	73-127	11	0-20	
Trichloroethene	50.00	50.80	102	44.73	89	80-120	73-127	13	0-20	
Trichlorofluoromethane	50.00	55.11	110	50.48	101	80-120	73-127	9	0-20	
1,2,3-Trichloropropane	50.00	54.79	110	51.65	103	80-120	73-127	6	0-20	
1,2,4-Trimethylbenzene	50.00	51.55	103	47.56	95	80-120	73-127	8	0-20	
1,3,5-Trimethylbenzene	50.00	52.27	105	47.95	96	80-120	73-127	9	0-20	
Vinyl Acetate	50.00	63.36	127	55.44	111	80-120	73-127	13	0-20	ME
Vinyl Chloride	50.00	48.56	97	43.39	87	67-127	57-137	11	0-20	
p/m-Xylene	100.0	98.97	99	91.01	91	80-120	73-127	8	0-20	
o-Xylene	50.00	49.41	99	44.83	90	80-120	73-127	10	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	50.52	101	48.05	96	70-124	61-133	5	0-20	
Tert-Butyl Alcohol (TBA)	250.0	249.9	100	251.4	101	73-121	65-129	1	0-20	
Diisopropyl Ether (DIPE)	50.00	56.73	113	52.21	104	69-129	59-139	8	0-20	
Ethyl-t-Butyl Ether (ETBE)	50.00	56.36	113	52.59	105	70-124	61-133	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	50.00	54.89	110	48.93	98	74-122	66-130	11	0-20	
Ethanol	500.0	399.9	80	420.7	84	51-135	37-149	5	0-27	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCSD

Geosyntec Consultants	Date Received:	07/17/13
1111 Broadway, FL 6TH	Work Order:	13-07-1126
Oakland, CA 94607-4172	Preparation:	EPA 5035
	Method:	EPA 8260B
Project: KP Chatsworth / WR1767		Page 12 of 14

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Project: KP Chatsworth / WR1767

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	LCS Batch Number
099-14-316-1066	**Aqueous**	**GC/MS GGG**	**07/19/13 14:29**	**130719L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	69.04	138	70-130	60-140	ME
Benzene	50.00	47.25	94	70-130	60-140	
Bromobenzene	50.00	51.91	104	70-130	60-140	
Bromochloromethane	50.00	50.70	101	70-130	60-140	
Bromodichloromethane	50.00	47.86	96	70-130	60-140	
Bromoform	50.00	51.69	103	70-130	60-140	
Bromomethane	50.00	34.66	69	70-130	60-140	ME
2-Butanone	50.00	59.24	118	70-130	60-140	
n-Butylbenzene	50.00	60.41	121	77-123	69-131	
sec-Butylbenzene	50.00	52.76	106	70-130	60-140	
tert-Butylbenzene	50.00	54.87	110	70-130	60-140	
Carbon Disulfide	50.00	47.42	95	70-130	60-140	
Carbon Tetrachloride	50.00	49.35	99	66-138	54-150	
Chlorobenzene	50.00	49.28	99	70-130	60-140	
Chloroethane	50.00	59.21	118	70-130	60-140	
Chloroform	50.00	50.47	101	70-130	60-140	
Chloromethane	50.00	47.82	96	70-130	60-140	
2-Chlorotoluene	50.00	48.88	98	70-130	60-140	
4-Chlorotoluene	50.00	48.68	97	70-130	60-140	
Dibromochloromethane	50.00	48.76	98	70-130	60-140	
1,2-Dibromo-3-Chloropropane	50.00	47.52	95	70-130	60-140	
1,2-Dibromoethane	50.00	50.14	100	70-130	60-140	
Dibromomethane	50.00	50.21	100	70-130	60-140	
1,2-Dichlorobenzene	50.00	49.97	100	70-130	60-140	
1,3-Dichlorobenzene	50.00	51.32	103	70-130	60-140	
1,4-Dichlorobenzene	50.00	55.96	112	70-130	60-140	
Dichlorodifluoromethane	50.00	65.23	130	70-130	60-140	
1,1-Dichloroethane	50.00	49.63	99	70-130	60-140	
1,2-Dichloroethane	50.00	51.54	103	80-129	72-137	
1,1-Dichloroethene	50.00	56.69	113	71-131	61-141	
c-1,2-Dichloroethene	50.00	51.58	103	70-130	60-140	
t-1,2-Dichloroethene	50.00	53.76	108	70-130	60-140	
1,2-Dichloropropane	50.00	50.07	100	79-115	73-121	
1,3-Dichloropropane	50.00	47.42	95	70-130	60-140	
2,2-Dichloropropane	50.00	67.97	136	70-130	60-140	ME
1,1-Dichloropropene	50.00	55.47	111	70-130	60-140	
c-1,3-Dichloropropene	50.00	52.19	104	70-130	60-140	

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS

Geosyntec Consultants
1111 Broadway, FL 6TH
Oakland, CA 94607-4172

Date Received: 07/17/13
Work Order: 13-07-1126
Preparation: EPA 5030C
Method: EPA 8260B

Project: KP Chatsworth / WR1767

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
t-1,3-Dichloropropene	50.00	47.15	94	70-130	60-140	
Ethylbenzene	50.00	52.23	104	80-123	73-130	
2-Hexanone	50.00	53.60	107	70-130	60-140	
Isopropylbenzene	50.00	49.81	100	70-130	60-140	
p-Isopropyltoluene	50.00	53.47	107	70-130	60-140	
Methylene Chloride	50.00	53.75	108	70-130	60-140	
4-Methyl-2-Pentanone	50.00	53.34	107	70-130	60-140	
Naphthalene	50.00	55.07	110	70-130	60-140	
n-Propylbenzene	50.00	50.21	100	70-130	60-140	
Styrene	50.00	52.16	104	70-130	60-140	
1,1,1,2-Tetrachloroethane	50.00	48.11	96	70-130	60-140	
1,1,2,2-Tetrachloroethane	50.00	55.03	110	70-130	60-140	
Tetrachloroethene	50.00	36.25	73	70-130	60-140	
Toluene	50.00	50.75	102	79-121	72-128	
1,2,3-Trichlorobenzene	50.00	57.01	114	70-130	60-140	
1,2,4-Trichlorobenzene	50.00	58.40	117	70-130	60-140	
1,1,1-Trichloroethane	50.00	51.18	102	70-130	60-140	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	60.47	121	70-130	60-140	
1,1,2-Trichloroethane	50.00	48.32	97	70-130	60-140	
Trichloroethene	50.00	47.64	95	70-130	60-140	
Trichlorofluoromethane	50.00	59.06	118	70-130	60-140	
1,2,3-Trichloropropane	50.00	52.61	105	70-130	60-140	
1,2,4-Trimethylbenzene	50.00	54.34	109	70-130	60-140	
1,3,5-Trimethylbenzene	50.00	55.70	111	70-130	60-140	
Vinyl Acetate	50.00	74.11	148	70-130	60-140	X
Vinyl Chloride	50.00	51.02	102	70-136	59-147	
p/m-Xylene	100.0	98.98	99	70-130	60-140	
o-Xylene	50.00	46.36	93	70-130	60-140	
Methyl-t-Butyl Ether (MTBE)	50.00	46.86	94	72-126	63-135	
Tert-Butyl Alcohol (TBA)	250.0	260.5	104	71-125	62-134	
Diisopropyl Ether (DIPE)	50.00	49.52	99	69-129	59-139	
Ethyl-t-Butyl Ether (ETBE)	50.00	51.69	103	69-129	59-139	
Tert-Amyl-Methyl Ether (TAME)	50.00	46.55	93	67-133	56-144	
Ethanol	500.0	550.5	110	47-155	29-173	

Total number of LCS compounds: 71
Total number of ME compounds: 3
Total number of ME compounds allowed: 4
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Calscience Environmental Laboratories, Inc.

Sample Analysis Summary Report

Work Order: 13-07-1126 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	769	Mercury	1
EPA 8015B (M)	EPA 5035	834	GC 4	2
EPA 8015B (M)	EPA 3550B	847	GC 46	1
EPA 8082	EPA 3545	669	GC 58	1
EPA 8260B	EPA 5035	849	GC/MS PP	2
EPA 8260B	EPA 5030C	791	GC/MS GGG	2
EPA 8270C	EPA 3545	421	GC/MS SS	1

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order: 13-07-1126 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
Other CA office locations: Concord and San Luis Obispo
For courier service / sample drop off information,
contact sales@calscience.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY
13-07-1126

Date 7/17/13
Page 1 of 1

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 1111 Broadway, 6th Floor
CITY: Oakland STATE: CA ZIP: 94607
TEL: 510-836-3034 E-MAIL: srehan@geosyntec.com fmansfield@geosyntec.com

CLIENT PROJECT NAME / NUMBER: KP Chatsworth
P.O. NO.: WR1767
PROJECT CONTACT: Syed Rehan Frances Mansfield
SAMPLER(S): (PRINT) Brian Cozzens

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☒ TPH(g) ☐ GRO	☒ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH (m)	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☒ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
1	TB-3	7/17/13	—	W	2		X							X								
2	SB-2-05	↓	0750	S	9	3	6		X	X		X		X			X		X			
3	SB-2-10		0805	S	9	3	6		X	X		X		X			X		X			
4	SB-2-15		0813	S	9	3	6		X	X		X		X			X		X			
5	SB-3-05		0910	S	9	3	6		X	X		X		X			X		X			
6	SB-3-05-DUP		0915	S	9	3	6		X	X		X		X			X		X			
7	SB-3-10		0918	S	9	3	6		X	X		X		X			X		X			
8	SB-3-15		0925	S	9	3	6		X	X		X		X			X		X			
9	SB-1-05		1240	S	4	1	3							X								
10	IDW-2	7/17/13	1430	S	6	3	3							X							X	

Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/17/13	Time: 1650
Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 7/17/13	Time: 1840
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

11/01/12 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 13-07-1126

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Geosyntec Consultants DATE: 07/17/13

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 2.6 °C - 0.2 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: _____

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: _____

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☑8ozCGJ ☑16ozCGJ 7/17/13 ☐Sleeve (_____) ☐EnCores® ☑TerraCores® (6) ☑ 2 08PJ (2)

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:** 1307083 **Labeled/Checked by:** YV

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JD

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JD

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JONES ENVIRONMENTAL, INC.

P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	C-2091 WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	7/18/2013 7/18/2013
Project Name:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street Chatsworth, 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 regulations. 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 & 10 purge volumes were 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 some length of time. 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.

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 within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	C-2091 WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	7/18/2013 7/18/2013
Project:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-12 1P**	**SV-12 3P**	**SV-12 10P**	**SV-16D 1P**	**SV-16D 3P**		
JEL ID:	**C-2091-01**	**C-2091-02**	**C-2091-03**	**C-2091-04**	**C-2091-05**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	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-12 1P	SV-12 3P	SV-12 10P	SV-16D 1P	SV-16D 3P		
JEL ID:	**C-2091-01**	**C-2091-02**	**C-2091-03**	**C-2091-04**	**C-2091-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**15.8**	**16.9**	**17.3**	**38.0**	**36.4**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**0.123**	**0.106**	**0.120**	**0.494**	**0.489**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	2.5	2.5		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	107%	91%	97%	105%	94%	75 - 125	
Toluene-d_8	101%	94%	98%	96%	99%	75 - 125	
4-Bromofluorobenzene	82%	87%	89%	88%	88%	75 - 125	
	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor	**JEL Ref. No.:**	C-2091
	Oakland, CA 94607	**Client Ref. No.:**	WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:**	7/18/2013
		Date Received:	7/18/2013
Project:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street	**Physical State:**	Soil Gas
	Chatsworth, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-16D 10P**	**SV-17D**	**SV-17D DUP**	**SV-16S**	**SV-17S**		
JEL ID:	**C-2091-06**	**C-2091-07**	**C-2091-08**	**C-2091-09**	**C-2091-10**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	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-16D 10P**	**SV-17D**	**SV-17D DUP**	**SV-16S**	**SV-17S**		
JEL ID:	**C-2091-06**	**C-2091-07**	**C-2091-08**	**C-2091-09**	**C-2091-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**36.0**	**32.9**	**30.0**	**22.7**	**25.5**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**0.492**	**0.140**	**0.140**	**0.403**	**0.125**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	2.5	2.5	2.5	2.5	2.5		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	88%	84%	100%	106%	84%	75 - 125	
Toluene-d_8	97%	92%	95%	95%	93%	75 - 125	
4-Bromofluorobenzene	91%	94%	96%	101%	105%	75 - 125	
	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor	**JEL Ref. No.:**	C-2091
	Oakland, CA 94607	**Client Ref. No.:**	WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:**	7/18/2013
		Date Received:	7/18/2013
Project:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street	**Physical State:**	Soil Gas
	Chatsworth, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-13**	**SV-14**	**SV-15**		
JEL ID:	**C-2091-11**	**C-2091-12**	**C-2091-13**	**Practical Quantitation Limit**	**Units**
Analytes:					
Benzene	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	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-13**	**SV-14**	**SV-15**		
JEL ID:	**C-2091-11**	**C-2091-12**	**C-2091-13**	**Practical Quantitation Limit**	**Units**
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	**31.7**	**32.5**	**32.9**	0.008	µg/L
Toluene	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	0.008	µg/L
Trichloroethylene	**0.124**	**0.518**	**0.168**	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	0.040	µg/L
TIC:					
n-propanol	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	0.008	µg/L
Dilution Factor	2.5	2.5	2.5		
Surrogate Recoveries:				**QC Limits**	
Dibromofluoromethane	93%	90%	91%	75 - 125	
Toluene-d_8	91%	95%	97%	75 - 125	
4-Bromofluorobenzene	102%	99%	100%	75 - 125	
	C2-071813-C-2091	C2-071813-C-2091	C2-071813-C-2091		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	C-2091 WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	7/18/2013 7/18/2013
Project:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**C-2091-14**	**C-2091-15**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	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

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	**C-2091-14**	**C-2091-15**	**Practical Quantitation Limit**	**Units**
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	0.008	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	95%	92%	75 - 125	
Toluene-d_8	95%	88%	75 - 125	
4-Bromofluorobenzene	90%	99%	75 - 125	
	C2-071813-C-2091	C2-071813-C-2091		

ND= Not Detected

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	**Report date:**	7/18/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	C-2091 WR-1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	7/18/2013 7/18/2013
Project:	Kaiser Permanente	**Date Analyzed:**	7/18/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** C2-071813-C-2091

JEL ID:	**C-2091-17**	**C-2091-18**			**C-2091-16**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	80%	78%	2.6%	70-130	102%	70-130
Benzene	103%	98%	4.1%	70-130	103%	70-130
Trichloroethylene	99%	96%	2.7%	70-130	99%	70-130
Toluene	102%	99%	3.2%	70-130	98%	70-130
Chlorobenzene	108%	110%	1.3%	70-130	110%	70-130
Surrogate Recovery:						
Dibromofluoromethane	90%	104%		75-125	101%	75-125
Toluene-d_8	109%	95%		75-125	103%	75-125
4-Bromofluorobenzene	101%	104%		75-125	86%	75-125

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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Chain-of-Custody Record

Client: GEOSYNTEC CONSULTANTS
Date: 7/18/13
Project Name: KAISER PERMANENTE
Client Project #: WR1767-02
Project Address: 20504 LASSEN STREET
CHATSWORTH, CA
Project Contact:

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

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
- ☐ _____

JEL Project #: C-2091
Page 1 of 2
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☑ no
Sealed ☑ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	BTEX 8260 (Full)	Analysis Requested	Analysis Requested	Analysis Requested	Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
SV-12 1P	1	2260	7/18/13	08:47		C-2091-01	SG	X				<2	2	GLASS GAS TIGHT SYRINGE
SV-12 3P	3	6780	7/18/13	09:09		C-2091-02	SG	X				<2	2	
SV-12 10P	10	22600	7/18/13	10:25		C-2091-03	SG	X				<2	2	
SV-16 D 1P	~~553~~ 1	553	7/18/13	09:22		C-2091-04	SG	X				<2	1	
SV-16 D 3P	3	1658	7/18/13	09:42		C-2091-05	SG	X				<2	1	
SV-16 D 10P	10	5525	7/18/13	10:00		C-2091-06	SG	X				<2	1	
SV-17 D	1	553	7/18/13	10:39		C-2091-07	SG	X				<2	1	
SV-17 D DUP	1	553	7/18/13	10:39		C-2091-08	SG	X				<2	1	
SV-16 S	10	22600	7/18/13	11:53		C-2091-09	SG	X				<2	1	
SV-17 S	10	22600	7/18/13	12:07		C-2091-10	SG	X				<2	1	

❶ Relinquished by (signature)	Date 7/18/13	❷ Received by (signature)	Date 7/18/13
Company Geosyntec	Time 1420	Company JEL	Time 14:20
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

Total Number of Containers

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.

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Chain-of-Custody Record

Client: GEOSYNTEC CONSULTANTS
Date: 7/18/13
Project Name: KAISER PERMANENTE
Client Project #: WR1767-02
Project Address: 20504 LASSEN STREET
CHATSWORTH, CA
Project Contact:

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

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
- ☐ _____

JEL Project #: C-2091
Page 2 of 2
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☐ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260 (Full)	Magnehelic Vacuum (In/H_2O)	Number of Containers	Remarks/Special Instructions
SV-13	1	536	7/18/13	12:25		C-2091-11	SG	X	<2	1	GLASS GAS TIGHT SYRINGE
SV-14	1	547	7/18/13	12:48		C-2091-12	SG	X	<2	1	
SV-15	1	19175	7/18/13	13:52		C-2091-13	SG	X	<2	1	

❶ Relinquished by (signature)	Date 7/18/13	❷ Received by (signature)	Date 7/18/13	Total Number of Containers
Company GEOSYNTEC	Time 1420	Company JEL	Time 1420	
❸ Relinquished by (signature)	Date	❹ 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.

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project Name:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, 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 regulations. 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 2000 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 some length of time. 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.

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 within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-08@05 1P**	**SV-08@05 3P**	**SV-08@05 10P**	**SV-08@15 1P**	**SV-08@15 3P**		
JEL ID:	**D-0579-01**	**D-0579-02**	**D-0579-03**	**D-0579-04**	**D-0579-05**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	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-08@05 1P**	**SV-08@05 3P**	**SV-08@05 10P**	**SV-08@15 1P**	**SV-08@15 3P**		
JEL ID:	**D-0579-01**	**D-0579-02**	**D-0579-03**	**D-0579-04**	**D-0579-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**79.1**	**47.6**	**47.8**	**49.4**	**45.4**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**38.2**	**23.7**	**22.8**	**38.6**	**34.9**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	50	50	50	50	50		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	109%	105%	105%	106%	109%	75 - 125	
Toluene-d_8	91%	95%	93%	92%	91%	75 - 125	
4-Bromofluorobenzene	102%	99%	100%	105%	105%	75 - 125	
	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1		

ND= Not Detected

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(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-08@15 10P**	**SV-07@08**	**SV-07@15**	**SBV-06@5**	**SBV-06@5 DUP**		
JEL ID:	**D-0579-06**	**D-0579-07**	**D-0579-08**	**D-0579-09**	**D-0579-10**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	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-08@15 10P**	**SV-07@08**	**SV-07@15**	**SBV-06@5**	**SBV-06@5 DUP**		
JEL ID:	**D-0579-06**	**D-0579-07**	**D-0579-08**	**D-0579-09**	**D-0579-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**48.6**	**0.860**	**2.65**	**49.3**	**48.4**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**37.6**	ND	ND	**2.49**	**2.08**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	50	25	5	50	50		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	103%	112%	105%	104%	105%	75 - 125	
Toluene-d_8	92%	95%	93%	96%	95%	75 - 125	
4-Bromofluorobenzene	106%	99%	95%	109%	106%	75 - 125	
	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SBV-06@15**	**SV0-9@05**	**SBV-07@05**	**SBV-07@15**	**SV-10@05**		
JEL ID:	**D-0579-11**	**D-0579-12**	**D-0579-13**	**D-0579-14**	**D-0579-15**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	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:	**SBV-06@15**	**SV0-9@05**	**SBV-07@05**	**SBV-07@15**	**SV-10@05**		
JEL ID:	**D-0579-11**	**D-0579-12**	**D-0579-13**	**D-0579-14**	**D-0579-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**40.2**	**49.7**	**24.5**	**28.5**	**24.9**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**4.86**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	50	50	50	5	5		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	118%	103%	101%	99%	98%	75 - 125	
Toluene-d_8	92%	94%	93%	100%	99%	75 - 125	
4-Bromofluorobenzene	94%	108%	101%	102%	103%	75 - 125	
	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV-11@05**	**SV-11@15**	**SV-05@05**	**SV-04@05**	**SV-06@5.5**		
JEL ID:	**D-0579-16**	**D-0579-17**	**D-0579-18**	**D-0579-19**	**D-0579-20**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.015**	**0.179**	ND	ND	ND	0.008	µg/L
Chloromethane	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-11@05**	**SV-11@15**	**SV-05@05**	**SV-04@05**	**SV-06@5.5**		
JEL ID:	**D-0579-16**	**D-0579-17**	**D-0579-18**	**D-0579-19**	**D-0579-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**1.31**	**0.967**	**0.241**	**0.250**	**0.105**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	**0.030**	**0.031**	**0.021**	**0.035**	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	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	97%	99%	103%	109%	101%	75 - 125	
Toluene-d_8	95%	95%	93%	91%	95%	75 - 125	
4-Bromofluorobenzene	102%	102%	107%	105%	106%	75 - 125	
	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1	D2-062513-D-0579_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**D-0579-21**	**D-0579-22**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	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

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	**D-0579-21**	**D-0579-22**	**Practical Quantitation Limit**	**Units**
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	0.008	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	114%	113%	75 - 125	
Toluene-d_8	104%	113%	75 - 125	
4-Bromofluorobenzene	93%	101%	75 - 125	
	D2-062513-D-0579_1	D2-062513-D-0579_1		

ND= Not Detected

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QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	**Report date:**	6/25/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0579 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/25/2013 6/25/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/25/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** D2-062513-D-0579_1

JEL ID:	**D-0579-24**	**D-0579-25**			**D-0579-23**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	87%	83%	5.1%	70-130	100%	70-130
Benzene	95%	91%	4.6%	70-130	113%	70-130
Trichloroethylene	107%	110%	2.9%	70-130	114%	70-130
Toluene	90%	86%	5.1%	70-130	99%	70-130
Chlorobenzene	122%	117%	3.8%	70-130	98%	70-130
Surrogate Recovery:						
Dibromofluoromethane	108%	100%		75-125	115%	75-125
Toluene-d_8	99%	117%		75-125	99%	75-125
4-Bromofluorobenzene	113%	109%		75-125	117%	75-125

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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Chain-of-Custody Record

Client: Geosyntec Consultants
Project Name: Kaiser Permanente
Project Address: 20504 Lassen Street. Chatsworth, CA
Project Contact: Frances Mansfield

Date: 06.25.13
Client Project #: WR 1767-02

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~2000 cc/min
Shut in Test: Y / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

Analysis Requested

JEL Project #: D-0579
Page 1 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	EPA 8260B (Vocs toxys)				Magnehelic Vacuum (In/H_2O)	Number of Containers	Remarks/Special Instructions
SV-8@5 1P	1	2260	6/25	~~0658~~ 0708	0735	D-0579-01	SG	X				<5	2	gas tight glass syringe
SV-8@5 3P	3	6770		~~0707~~ 0719	0749	D-0579-02	SG	X				<5	1	
SV-8@5 10P	10	22600		0747	0804	D-0579-03	SG	X				<5	1	
SV-8@15 1P	1	2310		0801	0818	D-0579-04	SG	X				<5	1	
SV-8@15 3P	3	6930		0816	0832	D-0579-05	SG	X				<5	1	
SV-8@15 10P	10	23100		0830	0847	D-0579-06	SG	X				<5	1	
SV-7@8	1	2270		0842	0901	D-0579-07	SG	X				<5	1	
SV-7@15	1	2310		0858	0915	D-0579-08	SG	X				<5	1	
SBV-6@5	1	2260		0911	0929	D-0579-09	SG	X				<5	1	
SBV-6@5 DUP	1	2260		0912	0943	D-0579-10	SG	X				<5	1	

❶ Relinquished by (signature)	Date	❷ Received by (signature)	Date
F Mansfield	6/25/13	[signature]	6/25/13
Company: Geosyntec Consultants	Time: 1225	Company: Jones Environmental	Time:
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

Total Number of Containers

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.

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Chain-of-Custody Record

Client: Geosyntec Consultants
Date: 06.25.13
Project Name: Kaiser Permanente
Client Project #: WR1767-02
Project Address: 20504 Lassen Street. Chatsworth, CA
Project Contact: Francis Manfield

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~2000 cc/min
Shut in Test (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0579
Page 2 of 2
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260B (VOCs + Oxys)	Analysis Requested: Typical	Analysis Requested	Analysis Requested	Magnehelic Vacuum (in H_2O)	Number of Containers	Remarks/Special Instructions
~~SBV~~ SV-6@5	1	2310	6/25	0938	0958	D-0579-11	SG	X				<5	1	gas tight glass syringe
SV-9@5	1	2260		0951	1012	D-0579-12	SG	X	~~X~~			<5	1	
SBV-7@5	1	2260		1008	1026	D-0579-13	SG	X				<5	1	
SBV-7@15	1	2310		1021	1039	D-0579-14	SG	X				<5	1	
SV-10@5	1	2260		1036	1053	D-0579-15	SG	X	~~X~~			<5	1	
SV-11@5	1	2260		1049	1106	D-0579-16	SG	X				10	2	
SV-11@15	1	2310		1102	1120	D-0579-17	SG	X				10	2	
SV-5@5	1	2260		1115	1134	D-0579-18	SG	X				<5	2	
SV-4@5	1	2260		1131	1151	D-0579-19	SG	X				<5	2	
SV-6@5 5	1	2260		1149	1205	D-0579-20	SG	X				<5	2	

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❶ Relinquished by (signature) FManfield	Date 6/25/13	❷ Received by (signature)	Date 6/26/13	Total Number of Containers
Company Geosyntec	Time 1225	Company Jones Environmental	Time	
❸ Relinquished by (signature)	Date	❹ 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.

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project Name:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

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 2000 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since previous sampling events determined this to be the appropriate purging volume.

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 some length of time. 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.

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 within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	**SV-09-05**	**SBV-06-05**	**SV-10-05**	**SV-01-05**	**SV-03-05**		
JEL ID:	**D-0580-01**	**D-0580-02**	**D-0580-03**	**D-0580-04**	**D-0580-05**	**Practical Quantitation Limit**	**Units**
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
Chloroethane				ND	ND	0.008	µg/L
Chloroform				ND	ND	0.008	µg/L
Chloromethane				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/Total Petroleum Hydrocarbons

Sample ID:	**SV-09-05**	**SBV-06-05**	**SV-10-05**	**SV-01-05**	**SV-03-05**		
JEL ID:	**D-0580-01**	**D-0580-02**	**D-0580-03**	**D-0580-04**	**D-0580-05**	**Practical Quantitation Limit**	**Units**
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	0.008	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				**1.13**	**0.405**	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				**0.017**	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	0.008	µg/L
Ethyl-tert-butylether				ND	ND	0.008	µg/L
Di-isopropylether				ND	ND	0.008	µg/L
tert-amylmethylether				ND	ND	0.008	µg/L
tert-Butylalcohol				ND	ND	0.040	µg/L
TPH Gasoline Range	ND	ND	ND			0.080	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	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	96%	92%	98%	91%	111%	75 - 125	
Toluene-d_8	87%	100%	99%	85%	101%	75 - 125	
4-Bromofluorobenzene	97%	97%	100%	98%	95%	75 - 125	
	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	**SV-02-05**	**SBV-01-05**	**SBV-02-05**	**SBV-02-05 REP**	**SBV-03-05**		
JEL ID:	**D-0580-06**	**D-0580-07**	**D-0580-08**	**D-0580-09**	**D-0580-10**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	**0.601**	0.008	µg/L
Chloromethane	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/Total Petroleum Hydrocarbons

Sample ID:	**SV-02-05**	**SBV-01-05**	**SBV-02-05**	**SBV-02-05 REP**	**SBV-03-05**		
JEL ID:	**D-0580-06**	**D-0580-07**	**D-0580-08**	**D-0580-09**	**D-0580-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
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	0.008	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	**0.168**	**0.820**	**1.73**	**1.64**	**1.43**	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TPH Gasoline Range		ND	ND	ND	ND	0.080	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	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	107%	106%	104%	91%	113%	75 - 125	
Toluene-d_8	100%	88%	99%	99%	88%	75 - 125	
4-Bromofluorobenzene	102%	103%	99%	97%	98%	75 - 125	
	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	**SBV-03-15**	**SBV-04-05**	**SBV-05-05**	**SBV-05-15**		
JEL ID:	**D-0580-11**	**D-0580-12**	**D-0580-13**	**D-0580-14**	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	**SBV-03-15**	**SBV-04-05**	**SBV-05-05**	**SBV-05-15**		
JEL ID:	**D-0580-11**	**D-0580-12**	**D-0580-13**	**D-0580-14**	**Practical Quantitation Limit**	**Units**
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	**1.17**	**1.10**	**0.443**	**0.484**	0.008	µg/L
Toluene	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	0.040	µg/L
TPH Gasoline Range		ND	ND		0.080	µg/L
TIC:						
n-propanol	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane	121%	118%	104%	104%	75 - 125	
Toluene-d_8	88%	89%	89%	100%	75 - 125	
4-Bromofluorobenzene	98%	102%	104%	102%	75 - 125	
	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1	D2-062613-D-0580_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**D-0580-15**	**D-0580-16**	**Practical Quantitation Limit**	**Units**
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
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	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/Total Petroleum Hydrocarbons

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	**D-0580-15**	**D-0580-16**	**Practical Quantitation Limit**	**Units**
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	0.008	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	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TPH Gasoline Range	ND	ND	0.080	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	111%	105%	75 - 125	
Toluene-d_8	87%	97%	75 - 125	
4-Bromofluorobenzene	107%	106%	75 - 125	
	D2-062613-D-0580_1	D2-062613-D-0580_1		

ND= Not Detected

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	**Report date:**	6/26/2013
Client Address:	1111 Broadway, 6th Floor Oakland, CA 94607	**JEL Ref. No.:** **Client Ref. No.:**	D-0580 WR1767-02
Attn:	Syed Rehan/Robert Cheung	**Date Sampled:** **Date Received:**	6/26/2013 6/26/2013
Project:	Kaiser Permanente	**Date Analyzed:**	6/26/2013
Project Address:	20504 Lassen Street Chatsworth, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates/Total Petroleum Hydrocarbons

Sample Spiked: Ambient Air **GC#:** D2-062613-D-0580_1

JEL ID:	**D-0580-18**	**D-0580-19**			**D-0580-17**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	96%	104%	7.6%	70-130	106%	70-130
Benzene	100%	101%	0.4%	70-130	119%	70-130
Trichloroethylene	103%	110%	6.8%	70-130	108%	70-130
Toluene	88%	93%	4.7%	70-130	109%	70-130
Chlorobenzene	107%	114%	5.8%	70-130	103%	70-130
TPH Gasoline Range	99%	105%	5.3%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	103%	108%		75-125	92%	75-125
Toluene-d_8	89%	83%		75-125	103%	75-125
4-Bromofluorobenzene	92%	117%		75-125	97%	75-125

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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Chain-of-Custody Record

Client: Geosyntec Consultants
Project Name: Kaiser Permanente
Project Address: 20504 Lassen Street, Chatsworth, CA
Project Contact: Frances Mansfield

Date: 06.26.13
Client Project #: WR1767-02

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~2000 cc/min
Shut in Test (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0580

Page 1 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260B (Vc + Oxys)	Analysis Requested: TPH-g	Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
SV-09-05	1	2260	6/26	0712	0730	D-0580-01	SG	X		<5	2	gas tight glass syringe
SBV-06-05	1	2260	"	0723	0747	D-0580-02	SG	X		<5	2	
SV-10-05	1	2260	"	0701	0713	D-0580-03	SG	X		<5	2	
SV-01-05	1	2260	"	0749	0803	D-0580-04	SG	X		<5	2	
SV-03-05	1	2260	"	0758	0818	D-0580-05	SG	X		<5	2	
SV-02-05	1	2260	"	0815	0835	D-0580-06	SG	X		<5	2	
SBV-01-05	1	2260	"	0832	0850	D-0580-07	SG	X	X	<5	2	
SBV-02-05	1	2260	"	0845	0905	D-0580-08	SG	X	X	10	2	
SBV-02-05 REP	1	2260	"	0849	0920	D-0580-09	SG	X	X	10	2	
SBV-03-05	1	2260	↓	0915	0934	D-0580-10	SG	X	X	<5	2	↓

❶ Relinquished by (signature) FMansfield	Date	❷ Received by (signature)	Date 6/26/13		**Total Number of Containers**
Company GEOSYNTEC CONSULTANTS	Time	Company Jones Environmental	Time 1052		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.
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date		
Company	Time	Company	Time		

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Chain-of-Custody Record

Client: Geosyntec Consultants
Project Name: Kaiser Permanente
Project Address: 20504 Lassen Street, Chatsworth, CA
Project Contact: Frances Mansfield

Date: 06.26.13
Client Project #: WR1767-02

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~2000 cc/min
Shut in Test: (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0580
Page 2 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Analysis Requested

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	EPA 8260B (VOCs + OXYGS)	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Remarks/Special Instructions
SBV-03-15	1	2310	6/26	0929	0951	D-0580-11	SG	X				<5	2	gas tight glass syringe
SBV-04-05	1	2260	↓	0943	1006	D-0580-12	SG	X	X			<5	2	↓
SBV-05-05	1	2260	↓	1001	1022	D-0580-13	SG	X	X			<5	2	↓
SBV-05-15	1	2310	↓	1015	1037	D-0580-14	SG	X				<5	2	↓

❶ Relinquished by (signature)	Date	❷ Received by (signature)	Date
F Mansfield		[signature]	6/26/13
Company: GEOSYNTEC CONSULTANTS	Time	Company: Jones Environmental	Time: 1052
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

Total Number of Containers

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.

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

July 3, 2015

Ms. Martha Lapadakis
3639 Harbor Boulevard, Suite 120
Ventura, California 93001

NO FURTHER ACTION FOR OU1, PROODOS PROPERTIES LOCATED AT 3737 MASON AVENUE, CHATSWORTH, CALIFORNIA 91311 (SITE). (SITE CODE 301640)

Dear Ms. Lapadakis,

The Department of Toxic Substances Control (DTSC) has reviewed the "Report of Additional Soil and Soil Vapor Sampling, Proodos Properties Inc, OU1 – Northern Parcels" (GeoEnviro Services, June 2015) (Report) for the subject Site.

The 8.4 acre Site is divided into three operable units (OU). OU1, includes the Northern Parcels, Los Angeles County Assessor's Parcel Numbers (APN): 2748-005-020, 2748-005-021, 2748-005-022, 2748-005-044, 2748-005-048. OU2, includes the Central Parcels APN's: 2748-005-027 and 2748-005-028. OU3, is the Southern Parcel APN: 2748-005-029. OU1 occupies 6.4 acres and is commercially developed. It includes five buildings totaling 43,510 ft^2 and currently being used as auto repair, retail, restaurant and office space. A portion of OU1 includes a fenced yard that is currently being utilized as trailer storage.

Previous investigations included a Phase I Environmental Site Assessment conducted by Stantec Consulting, Inc., in March 2013. A Phase II investigation was conducted by Geosyntec in late September 2013 that included extensive soil, soil gas and groundwater hydro-punch samples. In May 2014, GeoEnviro Services Inc., conducted additional soil and soil gas sampling at the Site to further define the lateral and vertical extent of the Volatile Organic Compounds (VOCs), namely TetraChloroEthylene (PCE) and TriChloroEthylene (TCE) contamination in soil. A risk assessment was conducted for the Site which determined that the Site has been deemed suitable for unrestricted land use.

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Based on DTSC's review of the Report, OU1 parcels do not pose a risk to human health and the environment under unrestricted land use. Therefore, DTSC concurs with the conclusions of the Report that further environmental investigation of OU1 is not required and hereby approves the Report. DTSC also concurs with the findings presented in the Report and recommends a No Further Action for OU1. Operable Units OU2 and OU3 would require additional investigation and/or remediation prior to a No Further Action determination. As with any real property, if previously unidentified contamination is discovered at the Site, additional assessment, investigation and/or cleanup may be required by the responsible parties.

If you have any questions, please contact me at 818-717-6534 or Mr. Manjul Bose, Project Manager, at (818) 717-6560 or Manjul.Bose@dtsc.ca.gov .

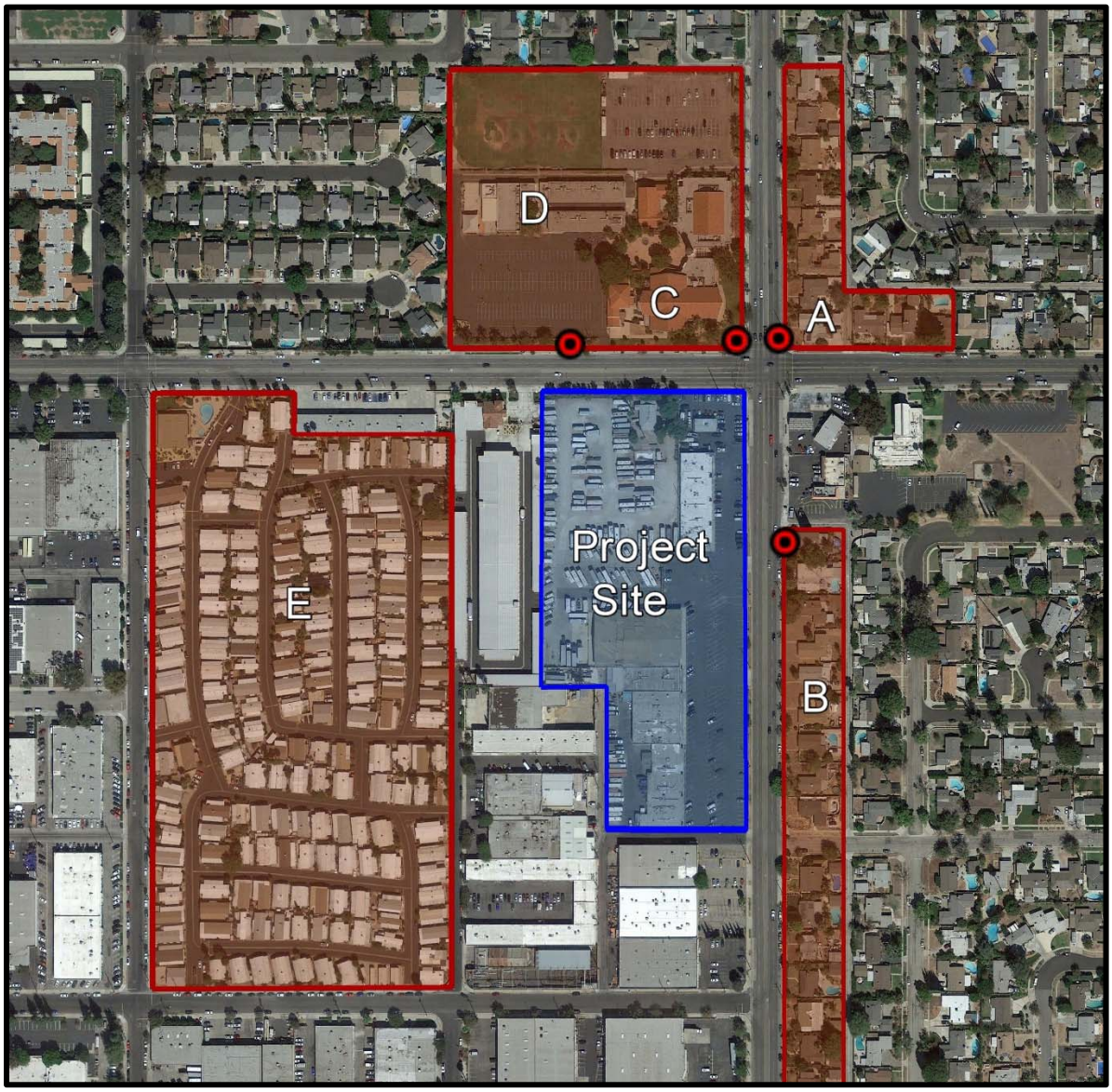
Sincerely,

Sayareh Amir
Branch Chief
Brownfields & Environmental Restoration Program
Southern California – Chatsworth Office

Cc: Mr. Joseph P. Schaaf, P.G., C.Hg.
GeoEnviro Services Inc.
P.O. Box 7300
Ventura, California 93006

F. NOISE MODELING RESULTS

9825 Mason Avenue – Noise Receptor Map



***Red markers indicate monitoring locations**

A. Mason Ave. and Lassen St. Residences

B. Mason Ave. Residences

C. St. John Eudes - Church

D. St. John Eudes - School

E. Valle Verde Courtyard Mobile Home Park

Imagery via Google Earth

DKA Planning

NEC of Mason Avenue and Lassen Street

12/1/2016

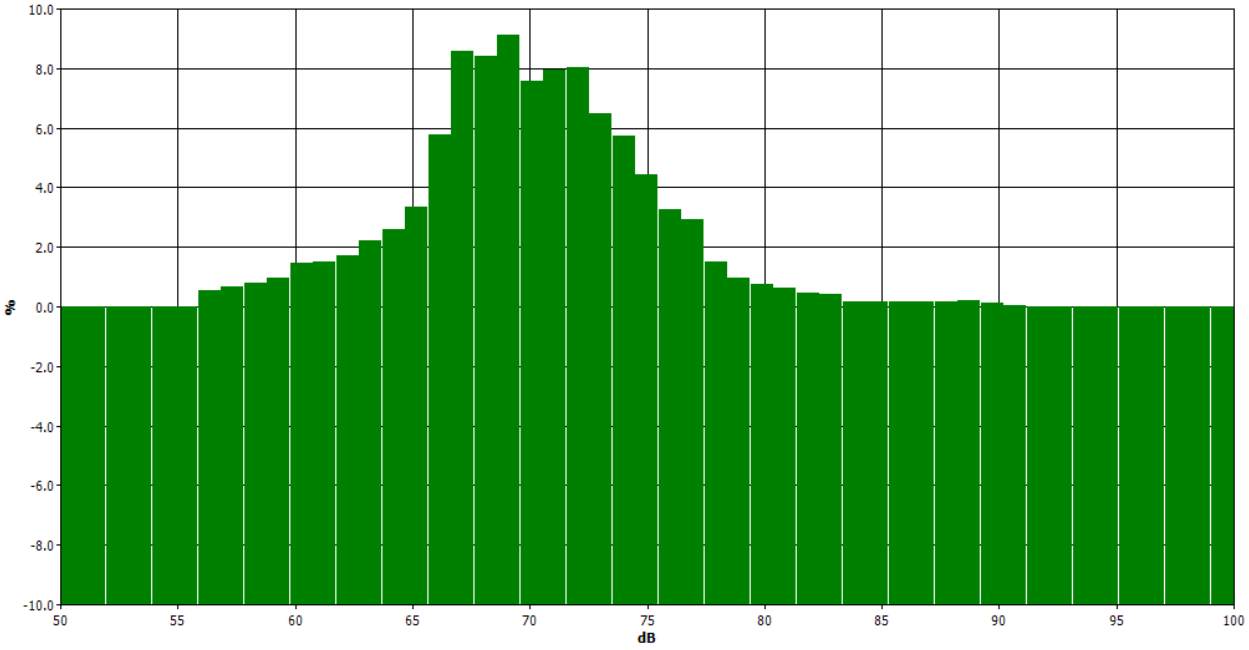
Information Panel

Name	S377_BIJ050019_01122016_190528
Start Time	Thursday, December 1, 2016, 12:49pm
Stop Time	Thursday, December 1, 2016, 1:04pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	74.1dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

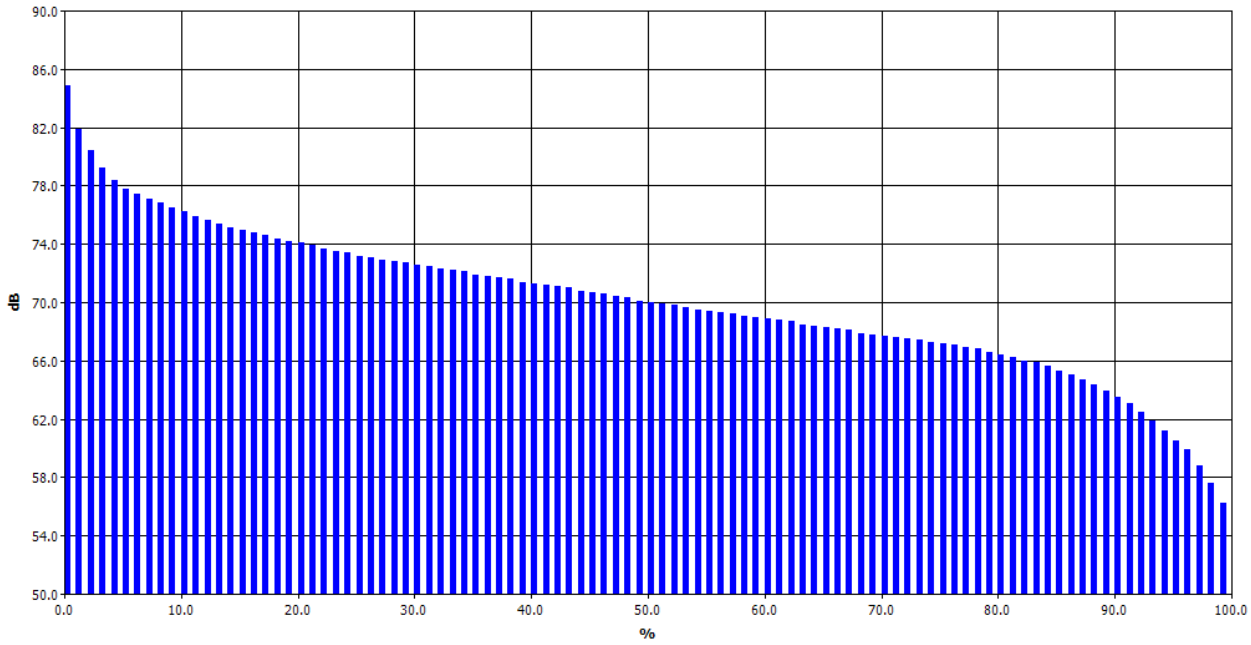
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	0.00	0.00	0.00	0.02	0.14	0.07	0.03	0.03	0.13	0.13	0.53
57	0.10	0.09	0.02	0.05	0.04	0.05	0.07	0.10	0.10	0.07	0.68
58	0.08	0.08	0.07	0.12	0.07	0.08	0.08	0.09	0.08	0.08	0.81
59	0.07	0.07	0.09	0.04	0.09	0.18	0.11	0.10	0.10	0.11	0.94
60	0.11	0.19	0.18	0.12	0.15	0.16	0.15	0.14	0.13	0.12	1.46
61	0.09	0.14	0.22	0.23	0.17	0.13	0.15	0.13	0.14	0.11	1.49
62	0.14	0.23	0.19	0.15	0.14	0.14	0.15	0.18	0.21	0.18	1.70
63	0.17	0.18	0.11	0.14	0.15	0.29	0.33	0.21	0.39	0.24	2.21
64	0.29	0.23	0.21	0.20	0.19	0.25	0.22	0.38	0.29	0.35	2.59
65	0.32	0.32	0.35	0.38	0.32	0.28	0.28	0.32	0.37	0.42	3.36
66	0.83	0.73	0.37	0.44	0.48	0.44	0.52	0.57	0.63	0.75	5.77
67	0.61	0.77	0.77	0.80	0.78	0.98	0.91	0.98	1.06	0.92	8.59
68	1.06	0.78	0.74	0.78	0.83	0.89	0.85	0.87	0.83	0.81	8.42
69	1.05	1.09	0.87	0.85	0.90	0.84	0.87	0.92	0.84	0.87	9.10
70	0.74	0.77	0.86	0.70	0.71	0.64	0.73	0.79	0.80	0.83	7.57
71	0.74	0.88	0.82	0.79	0.89	0.79	0.77	0.78	0.76	0.75	7.96
72	0.85	0.92	0.73	0.49	0.86	0.95	0.82	0.78	0.78	0.87	8.05
73	0.83	0.80	0.69	0.70	0.66	0.60	0.64	0.52	0.50	0.56	6.50
74	0.61	0.58	0.63	0.55	0.55	0.62	0.57	0.57	0.55	0.49	5.72
75	0.51	0.58	0.55	0.30	0.48	0.45	0.41	0.42	0.41	0.35	4.45
76	0.26	0.30	0.37	0.37	0.32	0.38	0.37	0.30	0.33	0.28	3.28
77	0.29	0.37	0.35	0.34	0.32	0.27	0.23	0.22	0.26	0.25	2.91
78	0.25	0.18	0.19	0.10	0.13	0.13	0.11	0.18	0.13	0.12	1.53
79	0.13	0.13	0.11	0.10	0.07	0.09	0.10	0.10	0.08	0.07	0.98
80	0.06	0.07	0.08	0.07	0.11	0.07	0.06	0.07	0.08	0.08	0.75
81	0.06	0.07	0.09	0.04	0.07	0.09	0.08	0.05	0.03	0.04	0.62
82	0.03	0.04	0.03	0.07	0.05	0.04	0.04	0.05	0.05	0.03	0.44
83	0.04	0.04	0.04	0.04	0.04	0.05	0.07	0.05	0.03	0.02	0.41
84	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.17
85	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.16
86	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.15
87	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.15
88	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.01	0.02	0.02	0.16
89	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.22
90	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.11
91	0.02	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

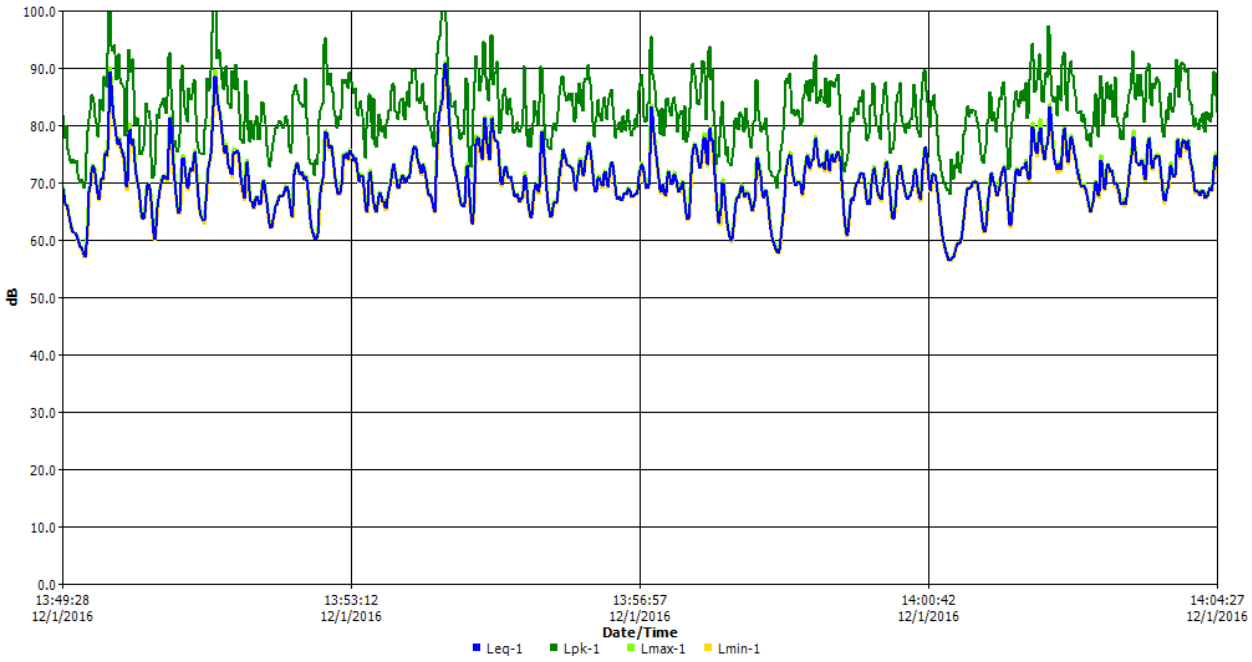
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		84.9	81.9	80.4	79.2	78.4	77.8	77.4	77.1	76.8
10%	76.5	76.2	75.9	75.6	75.4	75.1	75	74.8	74.6	74.4
20%	74.2	74.1	73.9	73.7	73.5	73.4	73.2	73.1	72.9	72.8
30%	72.7	72.6	72.5	72.3	72.2	72.1	71.9	71.8	71.7	71.6
40%	71.4	71.3	71.2	71.1	71	70.8	70.7	70.6	70.4	70.3
50%	70.1	70	69.9	69.8	69.7	69.5	69.4	69.3	69.2	69.1
60%	69	68.9	68.8	68.7	68.5	68.4	68.3	68.2	68.1	67.9
70%	67.8	67.7	67.6	67.5	67.4	67.3	67.2	67.1	66.9	66.8
80%	66.6	66.4	66.2	66	65.9	65.6	65.3	65	64.7	64.4
90%	63.9	63.5	63.1	62.5	61.9	61.2	60.5	59.9	58.8	57.6
100%	56.2									

Logged Data Chart



Mason Avenue Residences

12/1/2016

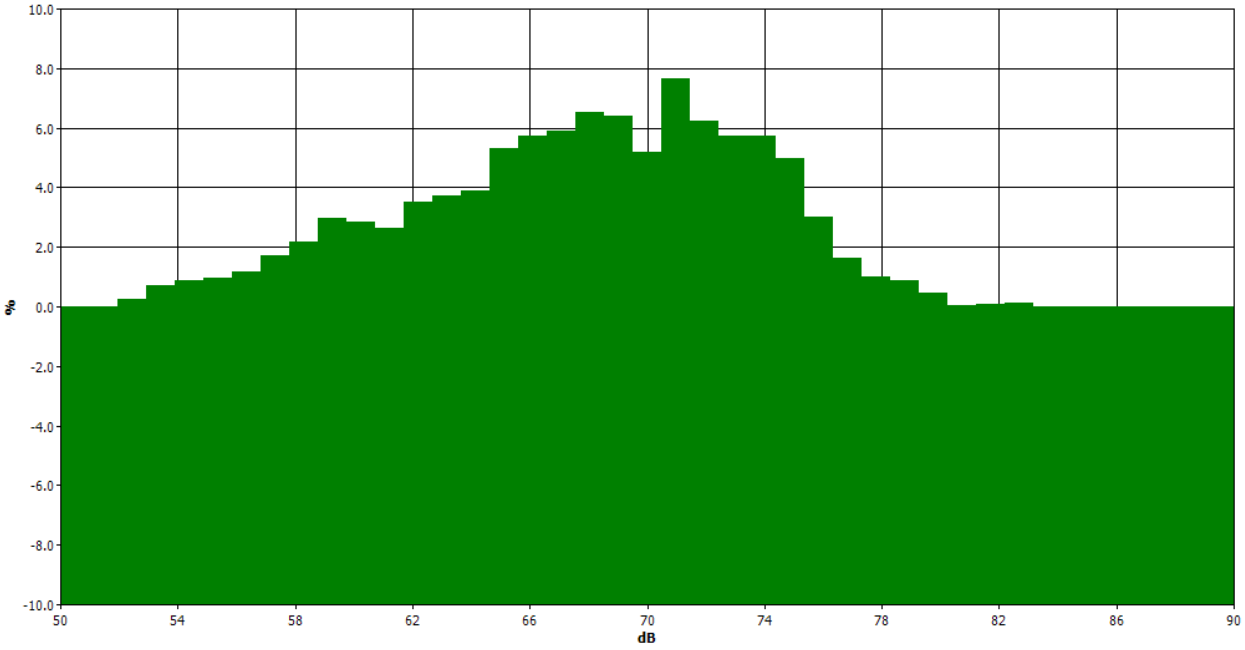
Information Panel

Name	S378_BIJ050019_01122016_190528
Start Time	Thursday, December 1, 2016, 1:06pm
Stop Time	Thursday, December 1, 2016, 1:21pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	71.4dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

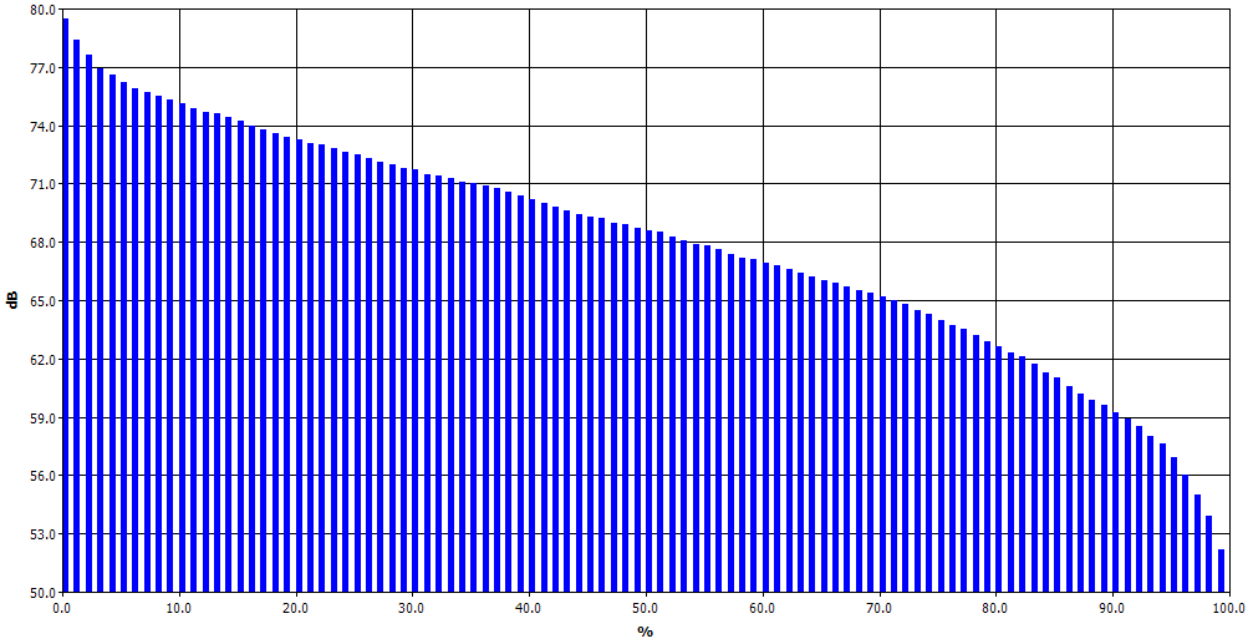
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.03	0.02	0.05	0.07	0.02	0.02	0.03	0.24
53	0.10	0.07	0.05	0.06	0.06	0.07	0.06	0.06	0.08	0.10	0.72
54	0.15	0.14	0.04	0.15	0.16	0.05	0.08	0.05	0.03	0.04	0.90
55	0.14	0.12	0.14	0.10	0.07	0.07	0.06	0.08	0.07	0.12	0.95
56	0.14	0.09	0.09	0.10	0.12	0.13	0.11	0.10	0.14	0.13	1.15
57	0.14	0.13	0.08	0.10	0.12	0.22	0.21	0.17	0.29	0.24	1.71
58	0.26	0.22	0.18	0.18	0.19	0.19	0.20	0.22	0.32	0.23	2.19
59	0.30	0.31	0.31	0.31	0.38	0.30	0.21	0.28	0.31	0.24	2.96
60	0.25	0.39	0.24	0.38	0.28	0.24	0.26	0.23	0.27	0.33	2.86
61	0.27	0.29	0.26	0.31	0.27	0.25	0.25	0.24	0.24	0.26	2.64
62	0.28	0.38	0.35	0.37	0.36	0.37	0.35	0.37	0.33	0.34	3.50
63	0.37	0.37	0.25	0.37	0.37	0.39	0.36	0.43	0.44	0.37	3.71
64	0.34	0.39	0.33	0.36	0.34	0.40	0.46	0.42	0.38	0.49	3.91
65	0.48	0.51	0.48	0.49	0.54	0.59	0.56	0.55	0.55	0.55	5.29
66	0.62	0.70	0.44	0.55	0.60	0.48	0.46	0.58	0.61	0.71	5.74
67	0.69	0.65	0.59	0.60	0.70	0.60	0.51	0.48	0.48	0.59	5.89
68	0.69	0.57	0.52	0.62	0.54	0.64	0.71	0.70	0.70	0.82	6.52
69	0.72	0.74	0.61	0.59	0.77	0.77	0.52	0.60	0.56	0.55	6.41
70	0.53	0.47	0.52	0.52	0.54	0.51	0.44	0.56	0.52	0.59	5.19
71	0.80	0.82	1.10	0.77	0.74	0.77	0.72	0.70	0.66	0.61	7.67
72	0.67	0.75	0.67	0.35	0.72	0.64	0.60	0.56	0.61	0.66	6.22
73	0.60	0.56	0.56	0.75	0.67	0.54	0.52	0.49	0.45	0.57	5.72
74	0.55	0.63	0.63	0.52	0.51	0.55	0.49	0.60	0.64	0.61	5.71
75	0.49	0.50	0.66	0.38	0.44	0.53	0.59	0.51	0.46	0.42	4.97
76	0.33	0.28	0.31	0.30	0.39	0.29	0.27	0.25	0.31	0.26	3.00
77	0.25	0.18	0.14	0.13	0.15	0.18	0.14	0.16	0.12	0.15	1.61
78	0.12	0.09	0.09	0.07	0.14	0.09	0.09	0.11	0.10	0.10	0.99
79	0.13	0.07	0.08	0.07	0.09	0.11	0.07	0.13	0.09	0.06	0.90
80	0.07	0.07	0.06	0.07	0.05	0.04	0.03	0.05	0.03	0.00	0.46
81	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.05
82	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.07
83	0.02	0.01	0.02	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.11
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

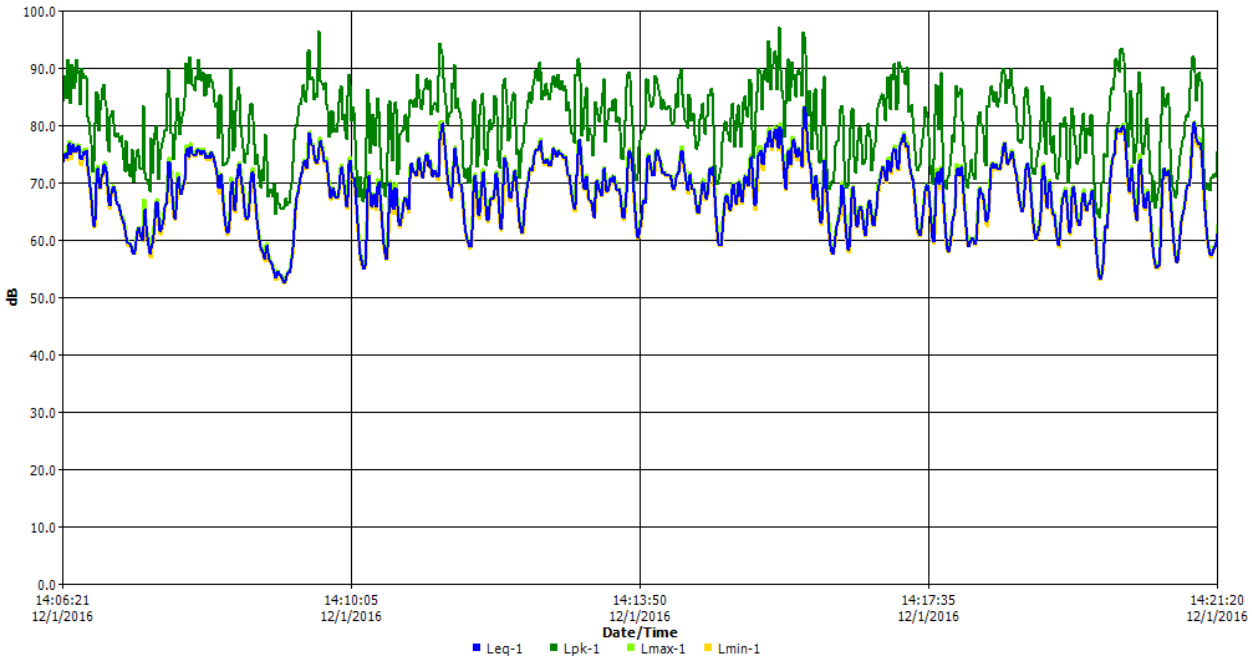
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		79.5	78.4	77.6	76.9	76.6	76.2	75.9	75.7	75.5
10%	75.3	75.1	74.9	74.7	74.6	74.4	74.2	74	73.8	73.6
20%	73.4	73.3	73.1	73	72.8	72.6	72.5	72.3	72.1	72
30%	71.8	71.7	71.5	71.4	71.3	71.1	71	70.9	70.8	70.6
40%	70.4	70.2	70	69.8	69.6	69.4	69.3	69.2	69	68.9
50%	68.7	68.6	68.5	68.3	68.1	67.9	67.8	67.6	67.4	67.2
60%	67.1	66.9	66.8	66.6	66.4	66.2	66	65.9	65.7	65.5
70%	65.4	65.2	65	64.8	64.5	64.3	64	63.7	63.5	63.2
80%	62.9	62.6	62.3	62.1	61.7	61.3	61	60.6	60.2	59.9
90%	59.6	59.2	58.9	58.5	58	57.6	56.9	56	55	53.9
100%	52.2									

Logged Data Chart



St. John Eudes Church and School

12/1/2016

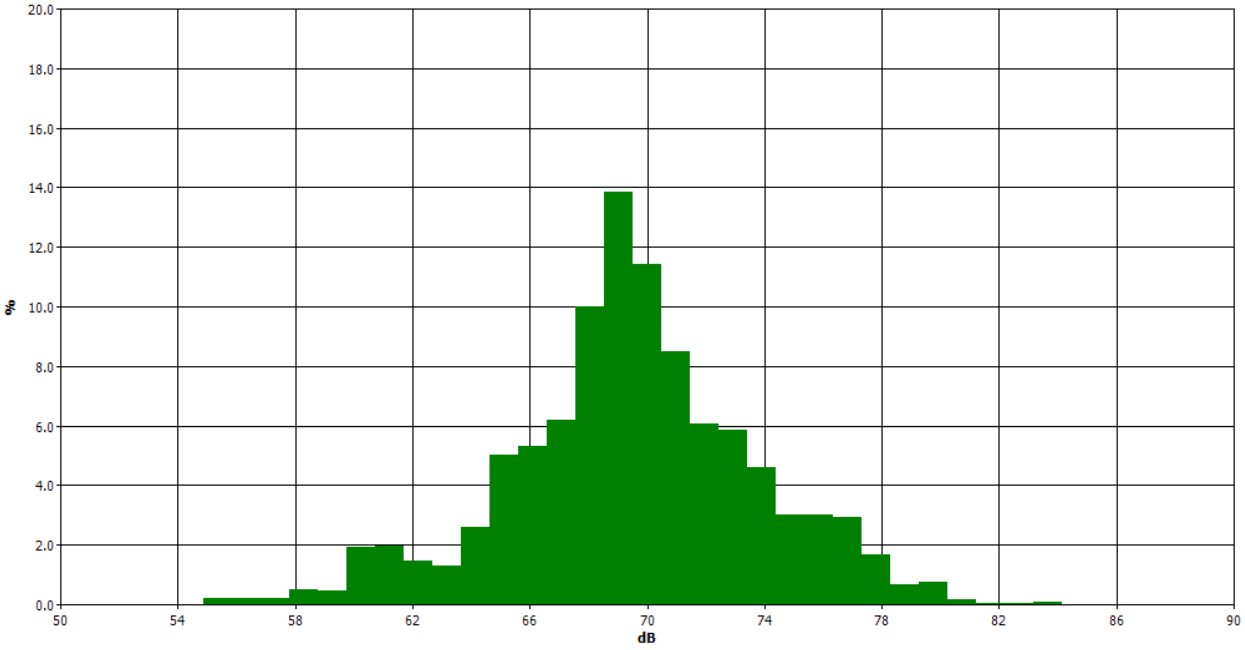
Information Panel

Name	S379_BIJ050019_01122016_190529
Start Time	Thursday, December 1, 2016, 1:40pm
Stop Time	Thursday, December 1, 2016, 1:55pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	72.0dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

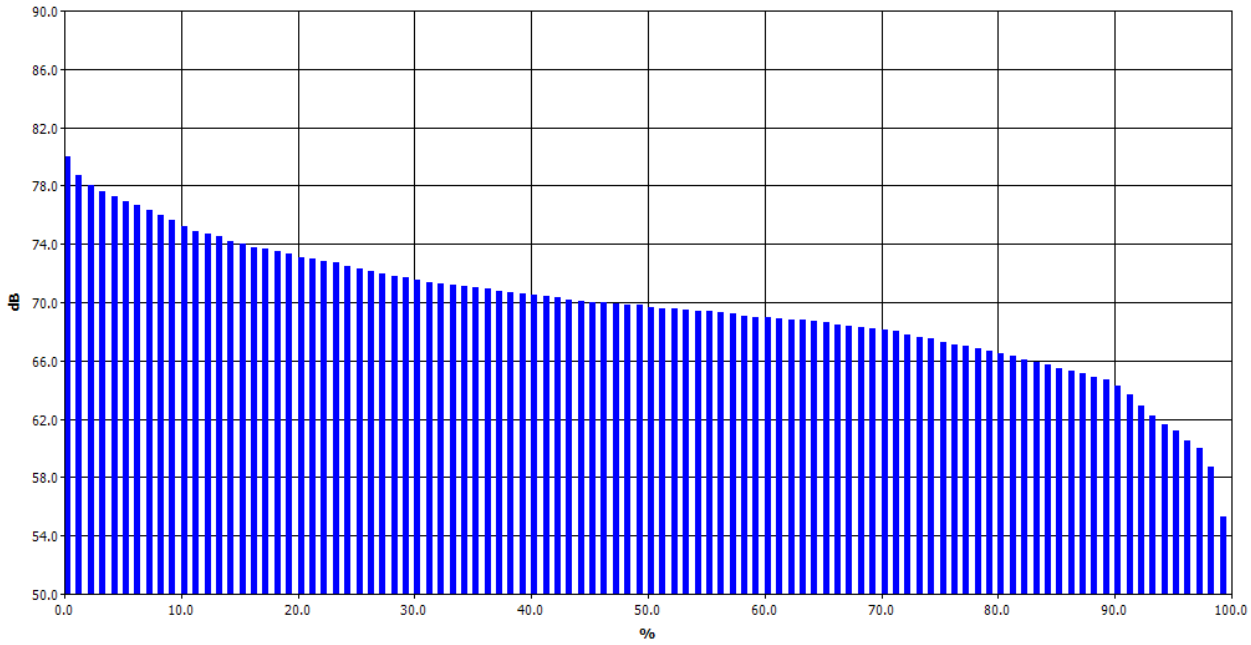
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.01	0.04	0.06	0.06	0.05	0.02	0.23
56	0.03	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.20
57	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.19
58	0.02	0.02	0.02	0.02	0.03	0.03	0.12	0.12	0.08	0.06	0.50
59	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.05	0.10	0.10	0.47
60	0.15	0.32	0.27	0.27	0.16	0.16	0.15	0.16	0.17	0.14	1.94
61	0.16	0.13	0.14	0.18	0.17	0.31	0.21	0.21	0.23	0.22	1.95
62	0.14	0.14	0.19	0.15	0.16	0.13	0.13	0.13	0.16	0.13	1.45
63	0.13	0.14	0.09	0.09	0.11	0.13	0.12	0.14	0.16	0.18	1.28
64	0.18	0.20	0.16	0.21	0.28	0.20	0.21	0.29	0.44	0.43	2.60
65	0.51	0.54	0.44	0.51	0.43	0.59	0.49	0.48	0.44	0.58	5.01
66	0.47	0.51	0.32	0.63	0.56	0.49	0.59	0.59	0.61	0.55	5.32
67	0.64	0.70	0.62	0.67	0.59	0.58	0.56	0.65	0.59	0.60	6.19
68	0.60	0.79	0.82	1.05	0.99	0.90	1.02	1.04	1.32	1.45	9.98
69	1.40	1.30	0.99	1.24	1.44	1.63	1.45	1.47	1.59	1.34	13.84
70	1.38	1.66	1.28	1.10	1.10	1.22	1.02	0.89	0.93	0.85	11.42
71	0.98	0.95	0.92	0.91	0.92	0.96	0.79	0.71	0.64	0.70	8.48
72	0.74	0.79	0.70	0.36	0.54	0.55	0.52	0.58	0.60	0.69	6.07
73	0.61	0.63	0.71	0.65	0.61	0.54	0.59	0.48	0.53	0.52	5.88
74	0.54	0.53	0.57	0.52	0.41	0.39	0.48	0.45	0.35	0.36	4.60
75	0.41	0.44	0.41	0.24	0.29	0.25	0.25	0.23	0.25	0.27	3.03
76	0.30	0.31	0.27	0.24	0.27	0.27	0.34	0.28	0.35	0.37	3.01
77	0.36	0.38	0.34	0.26	0.25	0.27	0.29	0.36	0.24	0.19	2.94
78	0.18	0.26	0.22	0.14	0.15	0.14	0.15	0.14	0.15	0.13	1.65
79	0.06	0.05	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.65
80	0.08	0.08	0.09	0.12	0.09	0.09	0.05	0.05	0.06	0.04	0.76
81	0.03	0.05	0.03	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.15
82	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.05
83	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.05
84	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.00	0.00	0.00	0.10
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

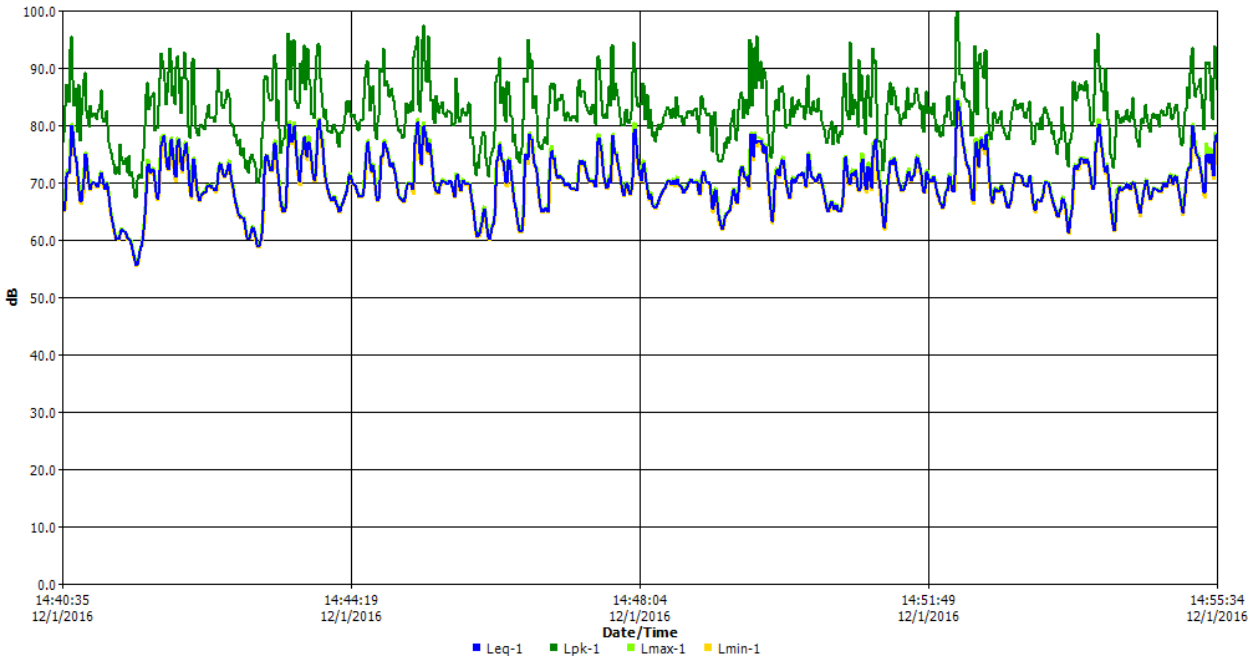
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		80	78.7	78	77.6	77.3	76.9	76.7	76.3	76
10%	75.6	75.2	74.9	74.7	74.5	74.2	74	73.8	73.7	73.5
20%	73.3	73.1	73	72.8	72.7	72.5	72.3	72.1	72	71.8
30%	71.7	71.5	71.4	71.3	71.2	71.1	71	70.9	70.8	70.7
40%	70.6	70.5	70.4	70.3	70.2	70.1	70	70	69.9	69.8
50%	69.8	69.7	69.6	69.6	69.5	69.4	69.4	69.3	69.2	69.1
60%	69	69	68.9	68.8	68.8	68.7	68.6	68.5	68.4	68.3
70%	68.2	68.1	68	67.8	67.6	67.5	67.3	67.1	67	66.8
80%	66.7	66.5	66.3	66.1	65.9	65.7	65.5	65.3	65.1	64.9
90%	64.7	64.3	63.7	62.9	62.2	61.6	61.2	60.5	60	58.7
100%	55.3									

Logged Data Chart



Lassen Street

12/1/2016

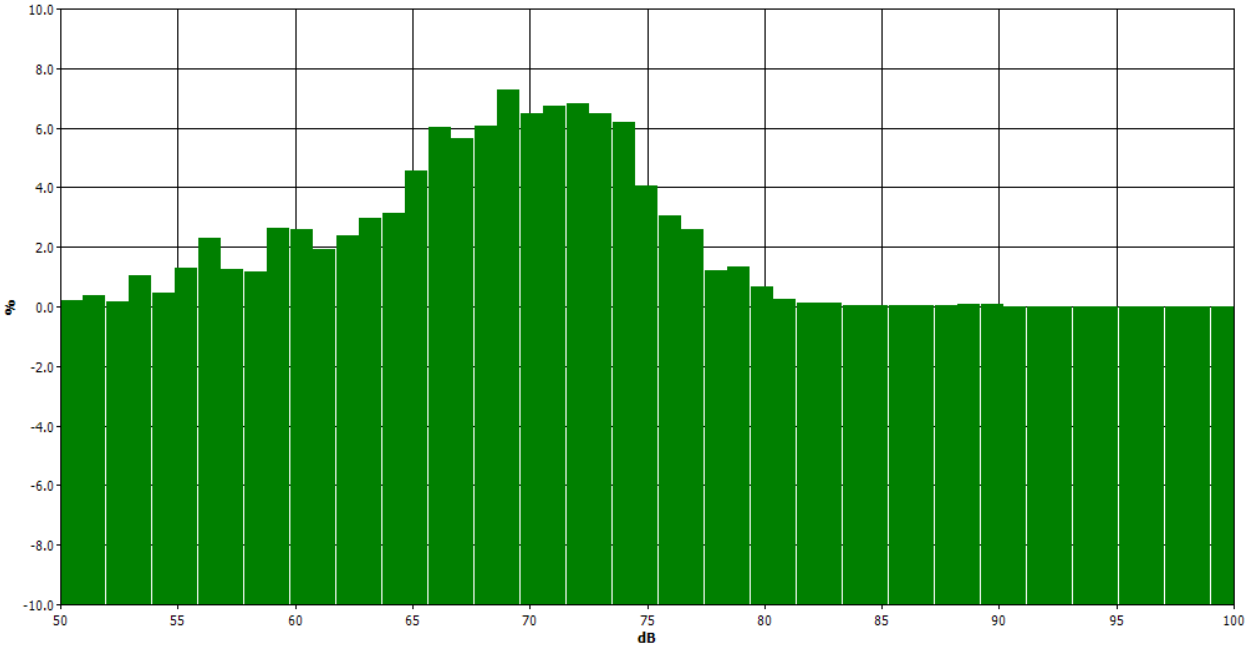
Information Panel

Name	S380_BIJ050019_01122016_190529
Start Time	Thursday, December 1, 2016, 1:57pm
Stop Time	Thursday, December 1, 2016, 2:12pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	72.5dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

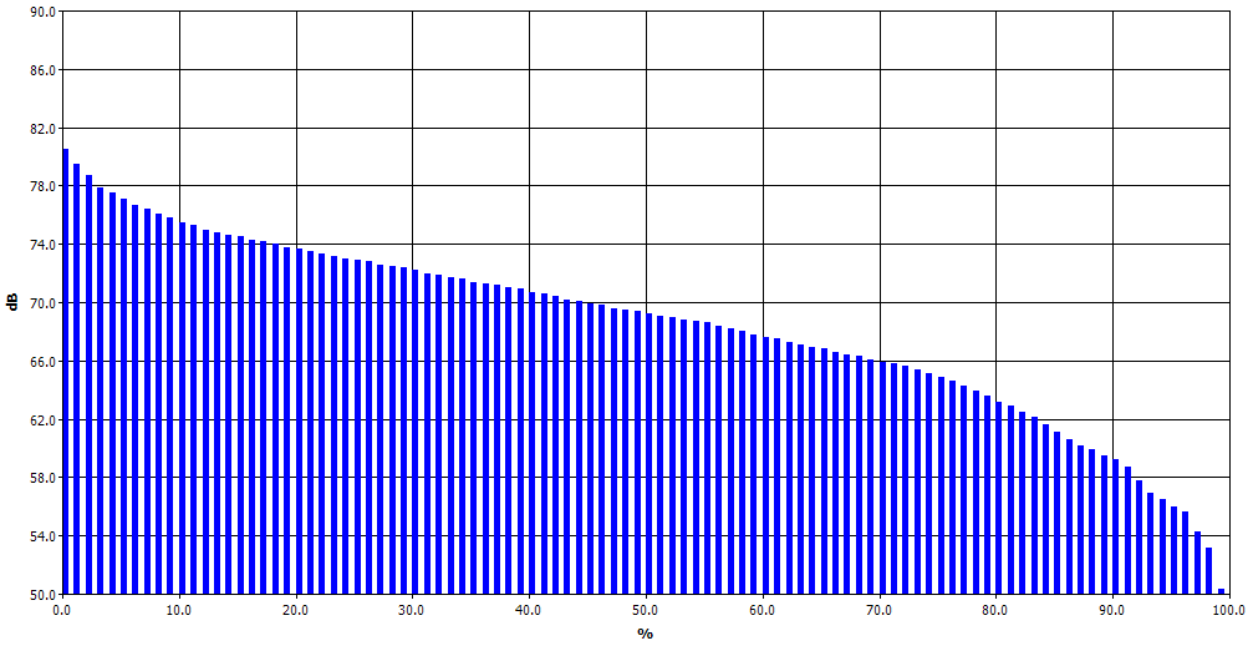
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.01	0.07	0.05	0.02	0.04	0.02	0.20
51	0.04	0.02	0.02	0.05	0.07	0.06	0.05	0.04	0.03	0.02	0.39
52	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.16
53	0.01	0.02	0.06	0.20	0.08	0.08	0.16	0.19	0.18	0.08	1.03
54	0.07	0.06	0.04	0.04	0.05	0.04	0.04	0.05	0.05	0.05	0.48
55	0.03	0.12	0.12	0.11	0.09	0.09	0.14	0.18	0.15	0.27	1.30
56	0.22	0.22	0.21	0.15	0.16	0.26	0.30	0.32	0.26	0.21	2.30
57	0.19	0.17	0.08	0.13	0.09	0.10	0.11	0.13	0.09	0.14	1.24
58	0.11	0.11	0.12	0.08	0.08	0.14	0.08	0.11	0.15	0.18	1.16
59	0.24	0.17	0.16	0.27	0.23	0.39	0.35	0.24	0.30	0.29	2.65
60	0.34	0.34	0.21	0.35	0.31	0.31	0.24	0.19	0.16	0.18	2.61
61	0.18	0.19	0.21	0.20	0.28	0.19	0.16	0.17	0.15	0.17	1.91
62	0.18	0.23	0.21	0.24	0.19	0.27	0.30	0.31	0.24	0.24	2.40
63	0.27	0.35	0.24	0.35	0.28	0.32	0.31	0.30	0.29	0.26	2.96
64	0.27	0.24	0.25	0.27	0.27	0.35	0.36	0.34	0.38	0.39	3.14
65	0.41	0.41	0.29	0.34	0.43	0.47	0.52	0.49	0.57	0.64	4.57
66	0.62	0.71	0.53	0.63	0.56	0.50	0.58	0.71	0.62	0.55	6.01
67	0.53	0.55	0.51	0.60	0.51	0.56	0.63	0.65	0.59	0.54	5.66
68	0.50	0.45	0.45	0.47	0.52	0.68	0.72	0.62	0.84	0.82	6.07
69	0.72	0.79	0.69	0.81	0.70	0.69	0.65	0.70	0.65	0.85	7.26
70	0.68	0.58	0.60	0.62	0.61	0.69	0.69	0.77	0.61	0.62	6.49
71	0.59	0.63	0.62	0.68	0.73	0.78	0.71	0.68	0.63	0.68	6.74
72	0.77	0.70	0.65	0.40	0.69	0.68	0.64	0.76	0.80	0.72	6.82
73	0.71	0.75	0.74	0.71	0.61	0.58	0.63	0.56	0.61	0.56	6.47
74	0.60	0.63	0.58	0.66	0.61	0.61	0.68	0.70	0.56	0.57	6.20
75	0.50	0.48	0.45	0.24	0.37	0.45	0.42	0.44	0.35	0.39	4.08
76	0.35	0.28	0.27	0.23	0.31	0.34	0.33	0.31	0.29	0.33	3.04
77	0.28	0.30	0.27	0.23	0.26	0.27	0.22	0.27	0.26	0.26	2.60
78	0.16	0.18	0.14	0.09	0.10	0.12	0.11	0.10	0.12	0.12	1.22
79	0.13	0.13	0.18	0.12	0.12	0.14	0.14	0.14	0.12	0.12	1.33
80	0.13	0.15	0.05	0.05	0.05	0.05	0.05	0.06	0.04	0.06	0.69
81	0.02	0.01	0.02	0.02	0.06	0.06	0.02	0.01	0.01	0.01	0.26
82	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.12
83	0.01	0.01	0.02	0.03	0.01	0.01	0.00	0.00	0.01	0.00	0.11
84	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.04
85	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.03
86	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.04
87	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.04
88	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.04
89	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.06
90	0.01	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

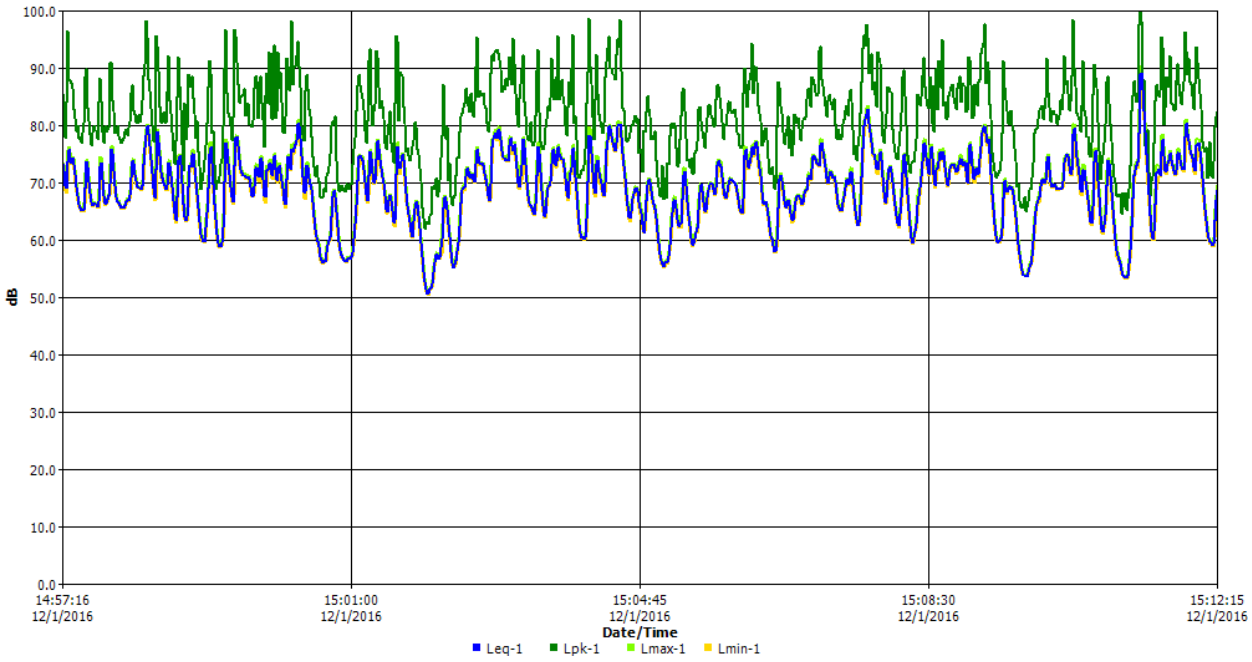
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		80.5	79.5	78.7	77.9	77.5	77.1	76.7	76.4	76.1
10%	75.8	75.5	75.3	75	74.8	74.6	74.5	74.3	74.2	74
20%	73.8	73.7	73.5	73.3	73.2	73	72.9	72.8	72.6	72.5
30%	72.4	72.2	72	71.9	71.7	71.6	71.4	71.3	71.2	71
40%	70.9	70.7	70.6	70.4	70.2	70.1	69.9	69.8	69.6	69.5
50%	69.4	69.2	69.1	69	68.8	68.7	68.6	68.4	68.2	68
60%	67.8	67.6	67.5	67.3	67.1	66.9	66.8	66.6	66.4	66.3
70%	66.1	65.9	65.8	65.6	65.4	65.1	64.9	64.6	64.3	63.9
80%	63.6	63.2	62.9	62.5	62.1	61.6	61.1	60.6	60.2	59.9
90%	59.5	59.2	58.7	57.8	56.9	56.5	56	55.6	54.3	53.2
100%	50.3									

Logged Data Chart



Mason Ave. and Lassen St. Residences: DEMOLITION AND GRADING

Construction Noise - Unmitigated

Total Equipment Noise Levels

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	81	0.4	77.0
Loader	79	0.4	75.0
		Combined dBA	**79.1**

Housing Row Shielding

If gaps in the row of buildings constitute less than 35% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows1)	**0**	

If gaps in the row of buildings constitute between 35-65% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows2)	**0**	

If gaps in the row of buildings constitute more than 65% of the length of the row:		
A(rows3)	**0**	

Tree Zone Shielding

Where at least 100 feet of trees intervene between source and receiver, ***and*** *if no clear line of sight exists between source and receiver,* ***and*** *if the trees extend 15 feet or more above the line of sight:*		
W	0	*width of the tree zone along the line of sight between source and receiver, in feet.
A(trees)	**0**	

Cumulative Shielding

Axxx	0
Axxx	0
Axxx	0
A(rows1)	0
A(rows2)	0
A(trees)	0
A(cumulative)	**0**

Mason Ave. and Lassen St. Residences: DEMOLITION AND GRADING

Unmitigated Construction Noise Level

Total Equipment Noise Level	79.1
Cumulative Shielding (A)	0
G	0
Distance	175
Unmitigated Construction Noise	**68.3**

Unmitigated Receptor Noise Level

Unmitigated Construction Noise	68.3
Existing Ambient Noise	74.1
Unmitigated Ambient Noise	75.1
Unmitigated Increase	**1.0**

Mason Ave. and Lassen St. Residences: DEMOLITION AND GRADING

Construction Noise - Mitigated

Construction Equipment Mitigation

Source	Emission Level (dBA)	Usage Factor	Mitigative Attenuation	Adjusted dBA
Excavator	81	0.4	3	74.0
Loader	79	0.4	3	72.0
		Combined dBA, Mitigated		**76.1**

Mitigated Construction Noise Level

Total Equipment Noise Level	76.1
Cumulative Shielding (A)	0
Sound Barrier Shielding	5.0
G	0.0
Distance	175
Mitigated Construction Noise	**60.3**

Mitigated Receptor Noise Level

Mitigated Construction Noise	60.3
Existing Ambient Noise	74.1
Mitigated Ambient Noise	74.3
Mitigated Increase	**0.2**

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006.

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013.

Mason Avenue Residences: DEMOLITION AND GRADING

Construction Noise - Unmitigated

Total Equipment Noise Levels

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	81	0.4	77.0
Loader	79	0.4	75.0
		Combined dBA	**79.1**

Housing Row Shielding

If gaps in the row of buildings constitute less than 35% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows1)	**0**	

If gaps in the row of buildings constitute between 35-65% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows2)	**0**	

If gaps in the row of buildings constitute more than 65% of the length of the row:		
A(rows3)	**0**	

Tree Zone Shielding

Where at least 100 feet of trees intervene between source and receiver, ***and*** *if no clear line of sight exists between source and receiver,* ***and*** *if the trees extend 15 feet or more above the line of sight:*		
W	0	*width of the tree zone along the line of sight between source and receiver, in feet.
A(trees)	**0**	

Cumulative Shielding

Axxx	0
Axxx	0
Axxx	0
A(rows1)	0
A(rows2)	0
A(trees)	0
A(cumulative)	**0**

Mason Avenue Residences: DEMOLITION AND GRADING

Unmitigated Construction Noise Level

Total Equipment Noise Level	79.1
Cumulative Shielding (A)	0
G	0
Distance	110
Unmitigated Construction Noise	**72.3**

Unmitigated Receptor Noise Level

Unmitigated Construction Noise	72.3
Existing Ambient Noise	71.4
Unmitigated Ambient Noise	74.9
Unmitigated Increase	**3.5**

Mason Avenue Residences: DEMOLITION AND GRADING

Construction Noise - Mitigated

Construction Equipment Mitigation

Source	Emission Level (dBA)	Usage Factor	Mitigative Attenuation	Adjusted dBA
Excavator	81	0.4	3	74.0
Loader	79	0.4	3	72.0
		Combined dBA, Mitigated		**76.1**

Mitigated Construction Noise Level

Total Equipment Noise Level	76.1
Cumulative Shielding (A)	0
Sound Barrier Shielding	5.0
G	0.0
Distance	110
Mitigated Construction Noise	**64.3**

Mitigated Receptor Noise Level

Mitigated Construction Noise	64.3
Existing Ambient Noise	71.4
Mitigated Ambient Noise	72.2
Mitigated Increase	**0.8**

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006.

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013.

St. John Eudes Church: DEMOLITION AND GRADING

Construction Noise - Unmitigated

Total Equipment Noise Levels

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	81	0.4	77.0
Loader	79	0.4	75.0
		Combined dBA	**79.1**

Housing Row Shielding

If gaps in the row of buildings constitute less than 35% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows1)	**0**	

If gaps in the row of buildings constitute between 35-65% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows2)	**0**	

If gaps in the row of buildings constitute more than 65% of the length of the row:		
A(rows3)	**0**	

Tree Zone Shielding

Where at least 100 feet of trees intervene between source and receiver, ***and*** *if no clear line of sight exists between source and receiver,* ***and*** *if the trees extend 15 feet or more above the line of sight:*		
W	0	*width of the tree zone along the line of sight between source and receiver, in feet.
A(trees)	**0**	

Cumulative Shielding

Axxx	0
Axxx	0
Axxx	0
A(rows1)	0
A(rows2)	0
A(trees)	0
A(cumulative)	**0**

St. John Eudes Church: DEMOLITION AND GRADING

Unmitigated Construction Noise Level

Total Equipment Noise Level	79.1
Cumulative Shielding (A)	0
G	0
Distance	125
Unmitigated Construction Noise	**71.2**

Unmitigated Receptor Noise Level

Unmitigated Construction Noise	71.2
Existing Ambient Noise	72
Unmitigated Ambient Noise	74.6
Unmitigated Increase	**2.6**

St. John Eudes Church: DEMOLITION AND GRADING

Construction Noise - Mitigated

Construction Equipment Mitigation

Source	Emission Level (dBA)	Usage Factor	Mitigative Attenuation	Adjusted dBA
Excavator	81	0.4	3	74.0
Loader	79	0.4	3	72.0
		Combined dBA, Mitigated		**76.1**

Mitigated Construction Noise Level

Total Equipment Noise Level	76.1
Cumulative Shielding (A)	0
Sound Barrier Shielding	5.0
G	0.0
Distance	125
Mitigated Construction Noise	**63.2**

Mitigated Receptor Noise Level

Mitigated Construction Noise	63.2
Existing Ambient Noise	72
Mitigated Ambient Noise	72.5
Mitigated Increase	**0.5**

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006.

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013.

St. John Eudes Church: DEMOLITION AND GRADING

Construction Noise - Unmitigated

Total Equipment Noise Levels

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	81	0.4	77.0
Loader	79	0.4	75.0
		Combined dBA	**79.1**

Housing Row Shielding

If gaps in the row of buildings constitute less than 35% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows1)	**0**	

If gaps in the row of buildings constitute between 35-65% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows2)	**0**	

If gaps in the row of buildings constitute more than 65% of the length of the row:		
A(rows3)	**0**	

Tree Zone Shielding

Where at least 100 feet of trees intervene between source and receiver, ***and*** *if no clear line of sight exists between source and receiver,* ***and*** *if the trees extend 15 feet or more above the line of sight:*		
W	0	*width of the tree zone along the line of sight between source and receiver, in feet.
A(trees)	**0**	

Cumulative Shielding

Axxx	0
Axxx	0
Axxx	0
A(rows1)	0
A(rows2)	0
A(trees)	0
A(cumulative)	**0**

St. John Eudes Church: DEMOLITION AND GRADING

Unmitigated Construction Noise Level

Total Equipment Noise Level	79.1
Cumulative Shielding (A)	0
G	0
Distance	330
Unmitigated Construction Noise	**62.8**

Unmitigated Receptor Noise Level

Unmitigated Construction Noise	62.8
Estimated Ambient Noise Level	54.9
Unmitigated Ambient Noise	63.4
Unmitigated Increase	**8.5**

Estimated Ambient Noise Level at Receptor

Monitored Noise Level	72.0	
Reference Distance	40	*from monitoring location to centerline of Lassen Street
G	0	
D	285	*Distance from noise source to receptor
Estimated Noise Level	**54.9**	

St. John Eudes Church: DEMOLITION AND GRADING

Construction Noise - Mitigated

Construction Equipment Mitigation

Source	Emission Level (dBA)	Usage Factor	Mitigative Attenuation	Adjusted dBA
Excavator	81	0.4	3	74.0
Loader	79	0.4	3	72.0
		Combined dBA, Mitigated		**76.1**

Mitigated Construction Noise Level

Total Equipment Noise Level	76.1
Cumulative Shielding (A)	0
Sound Barrier Shielding	5.0
G	0.0
Distance	330
Mitigated Construction Noise	**54.8**

Mitigated Receptor Noise Level

Mitigated Construction Noise	54.8
Estimated Ambient Noise Level	54.9
Mitigated Ambient Noise	57.8
Mitigated Increase	**2.9**

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006.

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013.

Valle Verde Courtyard Mobile Home Park Construction Noise

Construction Noise - Unmitigated

Total Equipment Noise Levels

Source	Emission Level (dBA)	Usage Factor	Adjusted dBA
Excavator	81	0.4	77.0
Loader	79	0.4	75.0
		Combined dBA	**79.1**

Housing Row Shielding

If gaps in the row of buildings constitute less than 35% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows1)	**0**	

If gaps in the row of buildings constitute between 35-65% of the length of the row:		
R	0	*number of rows of houses between source and receiver
A(rows2)	**0**	

If gaps in the row of buildings constitute more than 65% of the length of the row:		
A(rows3)	**0**	

Tree Zone Shielding

Where at least 100 feet of trees intervene between source and receiver, ***and*** *if no clear line of sight exists between source and receiver,* ***and*** *if the trees extend 15 feet or more above the line of sight:*		
W	0	*width of the tree zone along the line of sight between source and receiver, in feet.
A(trees)	**0**	

Cumulative Shielding

Existing Buildings	15
Axxx	0
Axxx	0
A(rows1)	0
A(rows2)	0
A(trees)	0
A(cumulative)	**15**

Valle Verde Courtyard Mobile Home Park Construction Noise

Unmitigated Construction Noise Level

Total Equipment Noise Level	79.1
Cumulative Shielding (A)	15
G	0
Distance	195
Unmitigated Construction Noise	**52.3**

Unmitigated Receptor Noise Level

Unmitigated Construction Noise	52.3
Presumed Ambient Noise Level	50
Unmitigated Ambient Noise	54.3
Unmitigated Increase	**4.3**

Construction Noise - Mitigated

Construction Equipment Mitigation

Source	Emission Level (dBA)	Usage Factor	Mitigative Attenuation	Adjusted dBA
Excavator	81	0.4	3	74.0
Loader	79	0.4	3	72.0
		Combined dBA, Mitigated		**76.1**

Mitigated Construction Noise Level

Total Equipment Noise Level	76.1
Cumulative Shielding (A)	15
Sound Barrier Shielding	0.0
G	0.0
Distance	195
Mitigated Construction Noise	**49.3**

Mitigated Receptor Noise Level

Mitigated Construction Noise	49.3
Presumed Ambient Noise Level	50
Mitigated Ambient Noise	52.7
Mitigated Increase	**2.7**

Sources

Federal Highway Administration (FHWA), *Construction Noise Handbook* , August 2006.

Federal Transit Administration (FTA), *Transit Noise and Vibration Assessment* , May 2006.

California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol* , September 2013.

9825 Mason Avenue

Construction Vibration - PPV: UNMITIGATED

Receptor: Mason Avenue Buildings and Homes
Equipment: Large Bulldozer, Auger Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1
Distance (ft)	110
Unmitigated Vibration Level (in/sec)	**0.020**

Receptor: St. John Eudes Church
Equipment: Large Bulldozer, Auger Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1
Distance (ft)	125
Unmitigated Vibration Level (in/sec)	**0.018**

Receptor: Storage Etc… Buildings
Equipment: Large Bulldozer, Auger Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1
Distance (ft)	10
Unmitigated Vibration Level (in/sec)	**0.223**

Receptor: 9721 Mason Avenue Commercial Building
Equipment: Large Bulldozer, Auger Drilling

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1
Distance (ft)	30
Unmitigated Vibration Level (in/sec)	**0.074**

Sources

California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual*, September 2013.
Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, May 2006

DKA Planning
Noah Tanski
2 December 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9825 Mason Avenue
RUN: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.6	66	72.6	10	Snd Lvl	72.6	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.6	66	74.6	10	Snd Lvl	74.6	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
2 December 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9825 Mason Avenue
RUN: AM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.3	66	72.3	10	Snd Lvl	72.3	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.6	66	72.6	10	Snd Lvl	72.6	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.6	66	74.6	10	Snd Lvl	74.6	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.6	66	72.6	10	Snd Lvl	72.6	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.5	66	72.5	10	Snd Lvl	72.5	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.3	66	72.3	10	Snd Lvl	72.3	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.7	66	72.7	10	Snd Lvl	72.7	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	72.7	66	72.7	10	Snd Lvl	72.7	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
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RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9825 Mason Avenue
RUN: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
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RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 9825 Mason Avenue
RUN: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NB Mason S of Lassen	1	1	0.0	72.3	66	72.3	10	Snd Lvl	72.3	0.0	8	-8.0
NB Mason N of Lassen	2	1	0.0	73.0	66	73.0	10	Snd Lvl	73.0	0.0	8	-8.0
SB Mason N of Lassen	3	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
St. John Eudes - Church	4	1	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
St. John Eudes - Classrooms	5	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
EB Lassen W of Mason	6	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
Congregational Church of Chatsworth	7	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0
EB Lassen E of Mason	8	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0
WB Lassen E of Mason	9	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
WB Lassen W of Mason	10	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	10	0.0	0.0	0.0
All Impacted	8	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

G. TRAFFIC STUDY

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TRAFFIC IMPACT STUDY
SWC MASON/LASSEN PROJECT

City of Los Angeles, California
October 24, 2016

Prepared for:

HRI Development
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LLG Ref. 5-16-0282-1



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TRAFFIC IMPACT STUDY

SWC MASON/LASSEN PROJECT

City of Los Angeles, California
October 24, 2016

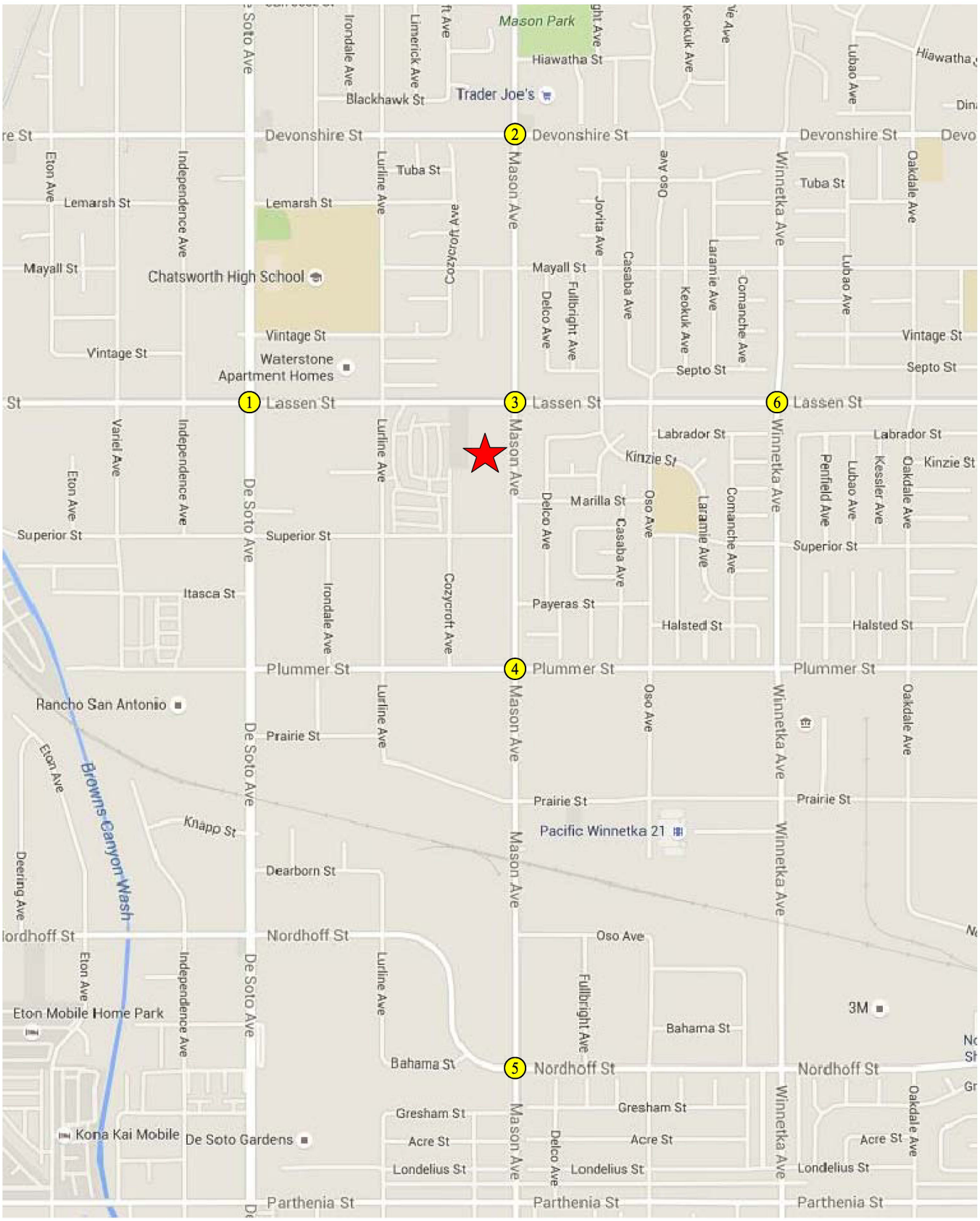
1.0 INTRODUCTION

This traffic analysis has been conducted to identify and evaluate the potential traffic impacts generated by the proposed SWC Mason/Lassen project (the "Project") located in the Chatsworth area of the City of Los Angeles, California. The Project applicant seeks to construct a hotel that will provide up to 125 rooms, 2,000 square feet of coffee shop with drive-through space, 6,400 square feet of fast-food restaurant with drive-through space, and 10,350 square feet of high-turnover restaurant space. Additionally, the Project proposes to remodel the existing 20,125 square feet of RV/boat storage into a health club. The proposed Project site is located at 9733-9857 Mason Avenue and 20504-20524 Lassen Street, which is at the southwest corner of the Mason Avenue and Lassen Street intersection. The Project site location and general vicinity are shown in ***Figure 1–1***.

The traffic analysis follows City of Los Angeles traffic study guidelines[1] and is consistent with traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program[2]. This traffic analysis evaluates potential Project-related impacts at six key intersections in the vicinity of the Project site. The study intersections were determined in consultation with City of Los Angeles Department of Transportation (LADOT) staff. The Critical Movement Analysis method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service for all six study intersections. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the Project.

This study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast net new traffic volumes from the Project, (iii) recommends mitigation measures, where necessary, (iv) forecasts future cumulative baseline traffic volumes, (v) forecasts future traffic volumes with the Project, (vi) determines future forecast with Project-related impacts, and (vii) recommends mitigation measures, where necessary.

[1] *Traffic Study Policies and Procedures*, City of Los Angeles Department of Transportation, August 2014.
[2] *2010 Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, 2010.



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MAP SOURCE: GOOGLE MAPS
★ PROJECT SITE
(XX) STUDY INTERSECTION

FIGURE 1-1
VICINITY MAP

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SWC MASON/LASSEN PROJECT

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1.1 Study Area

Upon coordination with LADOT staff, six study intersections have been identified for evaluation. All of the intersections were analyzed during both the weekday morning and afternoon peak hours. The six study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided in Section 3.0.

The general location of the Project in relation to the study locations and surrounding street system is presented in *Figure 1–1*. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

a. Immediately adjacent or in close proximity to the Project site;

b. In the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and

c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, the proposed Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The Project site is located at the 9733-9857 Mason Avenue and 20504-20524 Lassen Street in the Chatsworth area of the City of Los Angeles, California. The proposed Project site is located at the southwest corner of the Mason Avenue and Lassen Street intersection. The Project site location and general vicinity are shown in *Figure 1–1*.

2.2 Existing Project Site

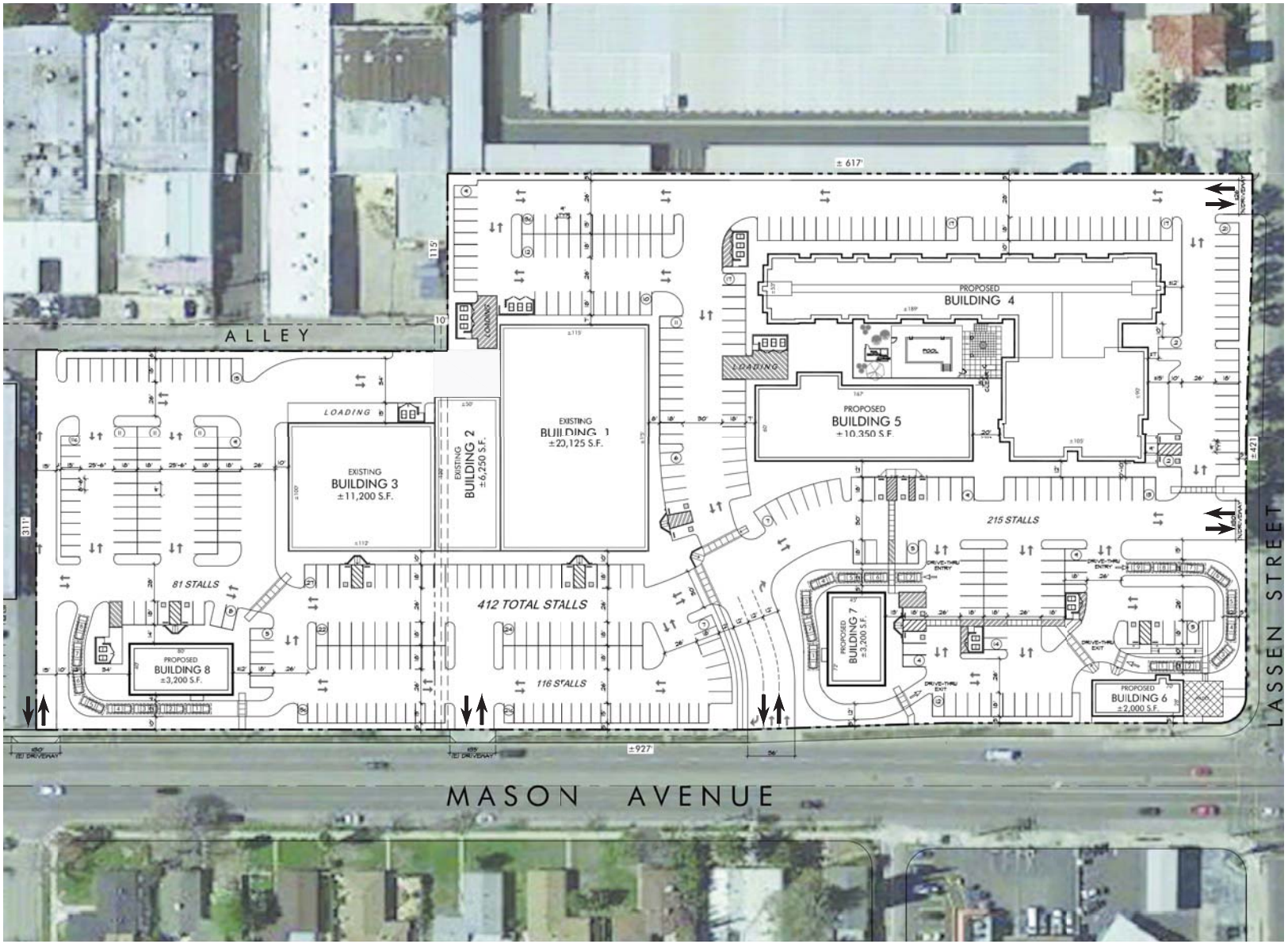
The Project site is currently occupied by a 1,032 square foot automobile care center, 20,125 square feet of RV/boat storage, and 23,820 square feet of retail space. Vehicular access to the existing Project site is provided via multiple driveways located off Mason Avenue and Lassen Street.

2.3 Proposed Project Description

The Project applicant proposes to construct a hotel that will provide up to 125 rooms, 2,000 square feet of coffee shop with drive-through space, 6,400 square feet of fast-food restaurant with drive-through space, and 10,350 square feet of high-turnover restaurant space. Additionally, the Project proposes to remodel the existing 20,125 square feet of RV/boat storage into a health club. Parking for the Project will be provided via multiple on-site surface parking lots. Construction and occupancy of the Project is planned to be completed by the year 2018. The site plan for the Project is illustrated in ***Figure 2–1***.

As shown in *Figure 2-1,* Buildings 2 and 3 are currently retail uses and are proposed to remain as retail in conjunction with the Project. The existing uses as described in Subsection 2.2 will be removed to accommodate development of the Project.

Vehicular access to the site will be provided via Mason Avenue and Lassen Street. The Project site driveways are along the Project site's easterly and northerly frontages. Further discussion of the Project site access and circulation schemes is provided in Section 3.0.



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MAP SOURCE: MCKENTLY MALAK ARCHITECTS

FIGURE 2-1
PROJECT SITE PLAN
GROUND FLOOR

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT

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3.0 SITE ACCESS AND CIRCULATION

The proposed site access scheme for the SWC Mason/Lassen Project is displayed in *Figure 2–1*. A description of the proposed site access and circulation scheme is provided in the following subsections.

3.1 Existing Vehicular Site Access

Vehicular access to the existing site is provided via five separate driveways located off the west side of Mason Avenue. Additionally, vehicular access to the Project site is provided via one driveway located off the south side of Lassen Street.

3.2 Vehicular Project Site Access

Vehicular access to the Project site will be provided via three driveways along Mason Avenue and two driveways along Lassen Street. The Project site driveways will provide vehicular access to the multiple on-site surface parking lots. Descriptions of the Project site driveways are provided in the following paragraphs:

- *Mason Avenue Project Driveways:*

  The three Mason Avenue site driveways are proposed on the west side of Mason Avenue. The three Mason Avenue site driveways are proposed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements).

- *Lassen Street Project Driveways:*

  The two Lassen Street site driveways are proposed on the south side of Lassen Street. The westerly Lassen Street driveway is proposed to accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress turning movements). The easterly Lassen Street driveway is assumed to accommodate right-turn vehicular ingress and egress only (i.e., left-turn ingress and egress traffic movements would not be permitted).

4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project site is provided by the SR-118 (Ronald Reagan). A brief description of the SR-118 Freeway is provided in the following paragraphs.

SR-118 (Ronald Reagan) Freeway is an east-west state highway that extends across Ventura County and Los Angeles County. In the project vicinity, four mixed-flow freeway lanes and one carpool lane are provided in each direction on the SR-118 Freeway. Eastbound and westbound ramps are provided on the SR-118 Freeway at De Soto Avenue in the Project area, and are located approximately two miles north of the Project site.

4.2 Local Roadway System

Immediate access to the Project site is provided via Mason Avenue and Lassen Street. The following study intersections were selected in consultation with LADOT staff for analysis of potential impacts due to the Project:

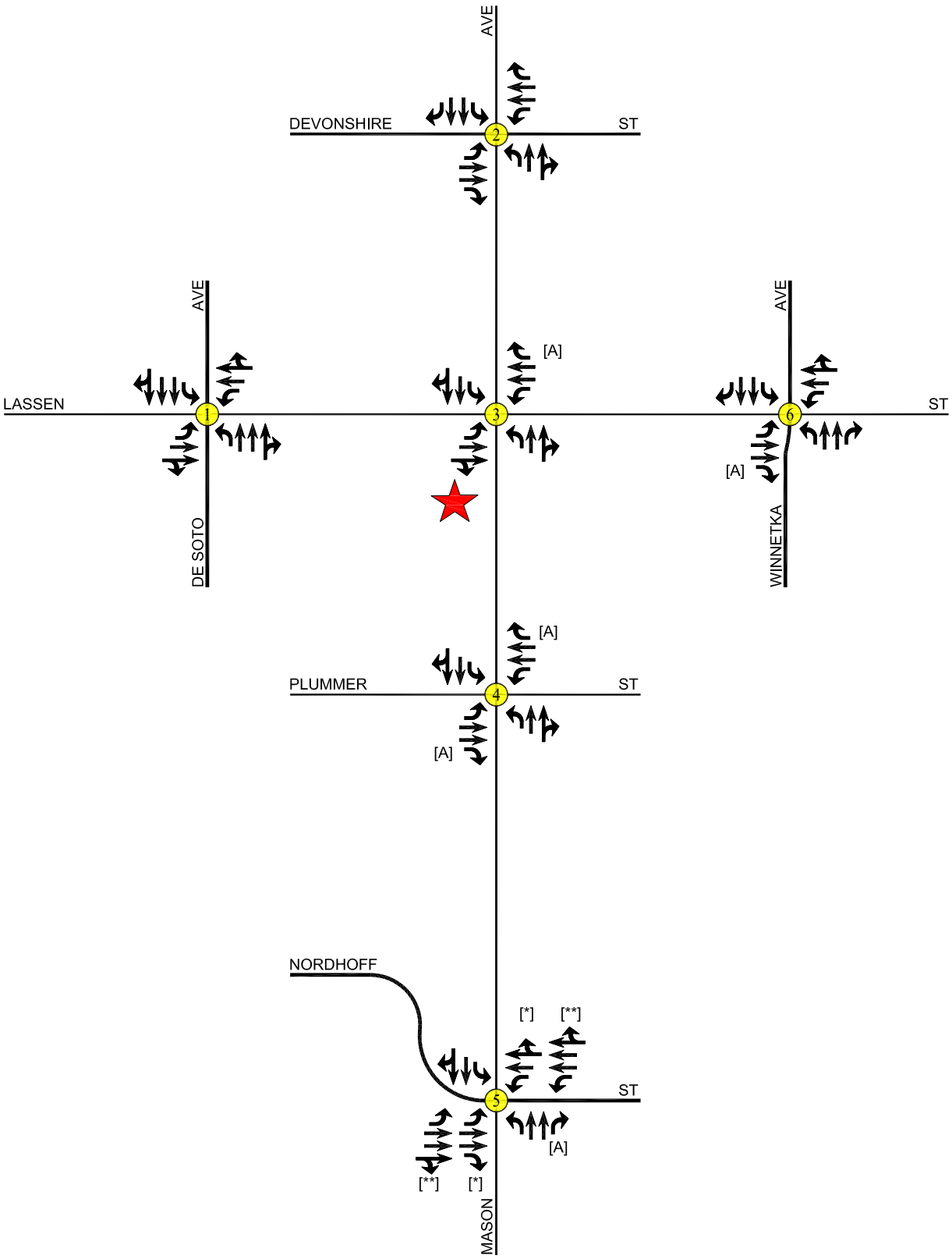
1. De Soto Avenue / Lassen Street
2. Mason Avenue / Devonshire Street
3. Mason Avenue / Lassen Street
4. Mason Avenue / Plummer Street
5. Mason Avenue / Nordhoff Street
6. Winnetka Avenue / Lassen Street

All six study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are displayed in ***Figure 4–1***.

4.3 Roadway Descriptions

A brief description[3] of the important roadways in the Project vicinity is provided in the following paragraphs.

[3] For reference, the street descriptions provided include both the designations under the prior City Transportation Element (e.g., Major Highway, Secondary Highway, etc.) and Mobility Plan 2035 (e.g., Boulevard, Avenue, etc.) adopted by the Los Angeles City Council in August 2015).



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★ PROJECT SITE (XX) STUDY INTERSECTION

NOTE: ALL STUDY INTERSECTIONS ARE SIGNALIZED

[A] = DEFACTO RIGHT-TURN

[*] = AM PEAK HOUR

[**] = PM PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 4-1
EXISTING LANE CONFIGURATIONS

SWC MASON/LASSEN PROJECT

De Soto Avenue is a north-south oriented roadway that is located west of the project site. Within the project study area, De Soto Avenue is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. Three through travel lanes are generally provided in both directions on De Soto Avenue within the project study area. Separate exclusive left-turn lanes are provided on De Soto Avenue at major intersections. De Soto Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

Mason Avenue is a north-south oriented roadway that borders the project site to the east. Within the project study area, Mason Avenue is designated as a Secondary Highway/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Mason Avenue within the project study area. Separate exclusive left-turn lanes are provided on Mason Avenue at major intersections. Separate right-turn only lanes are generally provided on Mason Avenue at the Devonshire Street and Nordhoff Street intersections. Mason Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

Winnetka Avenue is a north-south oriented roadway that is located east of the project site. Within the project study area, Winnetka Avenue is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. One to two through travel lanes are generally provided in both directions on Winnetka Avenue within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Winnetka Avenue at major intersections. Winnetka Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

Devonshire Street is an east-west oriented roadway that is located north of the project site. Within the project study area, Devonshire Street is designated as a Major Highway Class II/Avenue I by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Devonshire Street within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Devonshire Street at major intersections. Devonshire Street is posted for a 35 miles per hour speed limit west of De Soto Avenue and a 40 miles per hour speed limit east of De Soto Avenue in the project vicinity.

Lassen Street is an east-west oriented roadway that borders the project site to the north. Within the project study area, Lassen Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Lassen Street within the project study area. Separate exclusive left-turn lanes are provided on Lassen Street at major intersections. Separate right-turn only lanes are generally provided on Lassen Street at the Mason Avenue and Winnetka Avenue intersections. Lassen Street is posted for a 40 miles per hour speed limit in the project vicinity.

Plummer Street is an east-west oriented roadway that is located south of the project site. Within the project study area, Plummer Street is designated as a Secondary Highway/Avenue II by the City of Los Angeles. Two through travel lanes are generally provided in both directions on Plummer Street within the project study area. Separate exclusive left-turn and right-turn lanes are provided on Plummer Street at major intersections. Plummer Street is posted for a 35 miles per hour speed limit west of De Soto Avenue and a 40 miles per hour speed limit east of De Soto Avenue in the project vicinity.

Nordhoff Street is an east-west oriented roadway that is located south of the project site. Within the project study area, Nordhoff Street is designated as a Major Highway Class II/Boulevard II by the City of Los Angeles. Two to three through travel lanes are generally provided in both directions on Nordhoff Street within the project study area. Separate exclusive left-turn lanes are provided on Nordhoff Street at major intersections. Nordhoff Street is posted for a 40 miles per hour speed limit in the project vicinity.

4.4 Public Transit Services

Public bus transit service within the SWC Mason/Lassen Project study area is currently provided by Los Angeles County Metropolitan Transit Authority (Metro), LADOT Transit Commuter Express, City of Santa Clarita Transit, and Antelope Valley Transit Authority. A summary of the existing transit service, including the transit route, destinations, and peak hour headways is presented in ***Table 4–1***. The existing public transit routes in the SWC Mason/Lassen Project site vicinity are illustrated in ***Figure 4–2***.

Table 4-1
EXISTING PUBLIC TRANSIT ROUTES [1]

18-Oct-16

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
Metro 158	Sherman Oaks to Chatsworth (via Devonshire Street & Woodman Avenue)	Devonshire Street	EB WB	1 3	1 2
Metro 166/364	Sun Valley to Chatsworth (via Nordhoff Street & Osborne Street)	Nordhoff Street	EB WB	1 10	3 4
Metro 167	Studio City to Chatsworth Station (via Plummer Street & Coldwater Canyon Avenue)	Plummer Street	EB WB	1 1	2 1
Metro 242/243	Porter Ranch to Woodland Hills (via Tampa Avenue & Winnetka Avenue)	Mason Avenue	NB SB	2 2	2 2
Metro 244/245	Chatsworth Station to Woodland Hills (via De Soto Avenue & Topanga Canyon Boulevard)	De Soto Avenue	NB SB	5 2	1 2
SC 791	Santa Clarita to Warner Center / Chatsworth (via I-5 Freeway, De Soto Avenue & Topanga Canyon Boulevard)	De Soto Avenue	NB SB	2 0	0 1
SC 796	Santa Clarita to Warner Center / Chatsworth (via SR-14 Freeway, De Soto Avenue & Canoga Avenue)	De Soto Avenue	NB SB	0 1	3 0

Table 4-1 (Continued)
EXISTING PUBLIC TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAY(S) NEAR SITE	NO. OF BUSES/TRAINS DURING PEAK HOUR		
			DIR	AM	PM
AVTA 787	Lancaster/Palmdale to West San Fernando Valley (via Ventura Boulevard, De Soto Avenue & Plummer Street)	Plummer Street	NB SB	0 3	2 0
CE 419	Downtown Los Angeles to Chatsworth (via Devonshire Street, Figuerora Street & Hill Street)	Devonshire Street	EB WB	2 0	0 1
			Total	**36**	**27**

[1] Sources: Los Angeles County Metropolitan Transportation Authority (Metro) website, 2016.
City of Santa Clarita Transit (SC) website, 2016.
Antelope Valley Transit Authority (AVTA) website, 2016.
Los Angeles Department of Transportation (Commuter Express) website, 2016.



NOT TO SCALE

SOURCE: METROPOLITAN TRANSPORTATION AUTHORITY

★ PROJECT SITE

FIGURE 4-2
EXISTING PUBLIC TRANSIT ROUTES

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5.0 TRAFFIC COUNTS

Manual traffic counts of vehicular turning movements were conducted at each of the six study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM and 3:00 PM to 6:00 PM to determine the respective peak commuter hours.

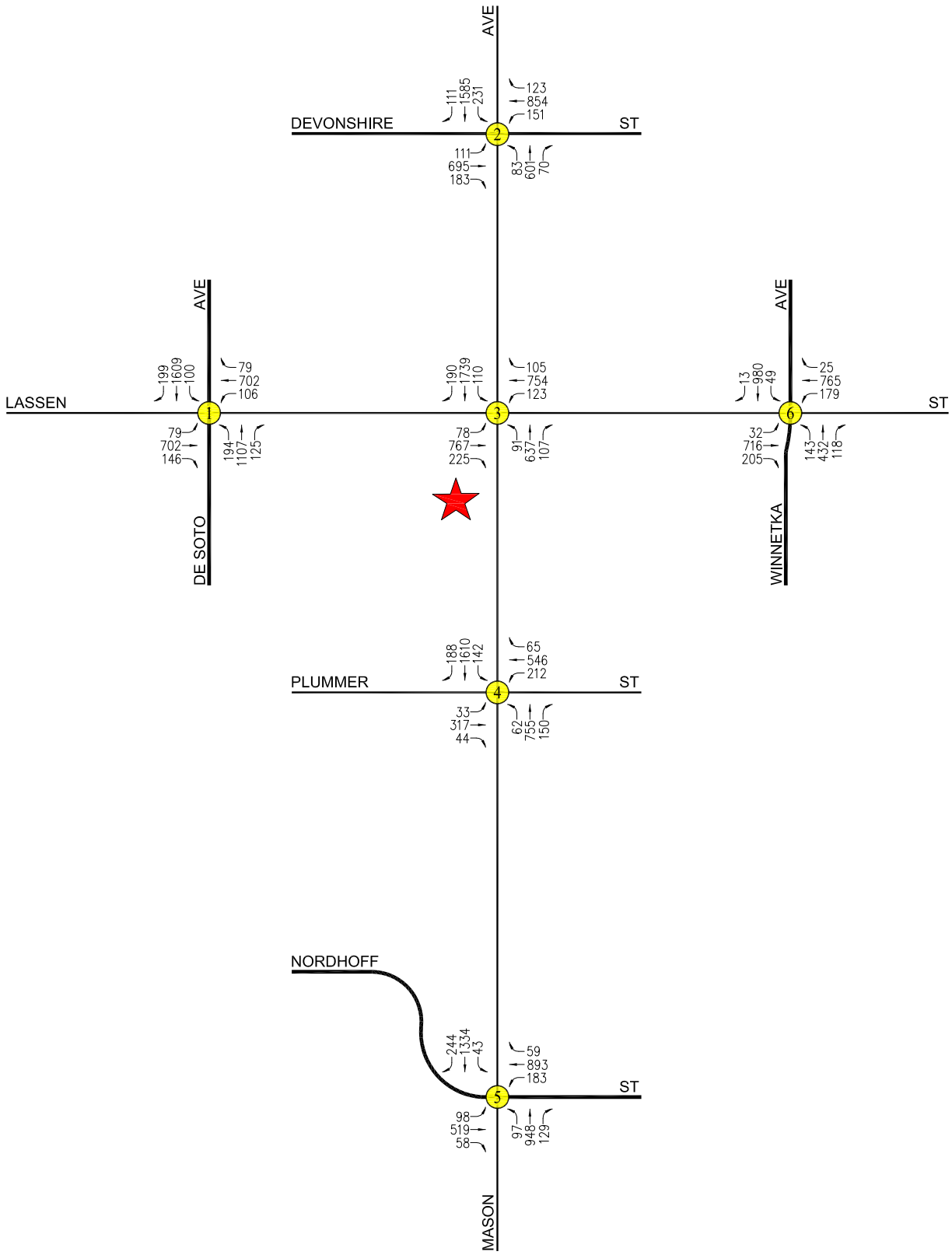
The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in ***Table 5–1***. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 5–1*** and ***5–2***, respectively. Summary data worksheets of the manual traffic counts at the study intersections are contained in ***Appendix A***.

Table 5-1
EXISTING TRAFFIC VOLUMES [1]

18-Oct-16

NO.	INTERSECTION	DATE	DIR	AM PEAK HOUR		PM PEAK HOUR	
				BEGAN	VOLUME	BEGAN	VOLUME
1	De Soto Ave / Lassen Street	09/21/2016	NB	7:15	1,426	4:30	2,099
			SB		1,908		1,289
			EB		927		1,134
			WB		887		745
2	Mason Avenue / Devonshire Street	09/21/2016	NB	7:15	754	4:45	1,558
			SB		1,927		844
			EB		989		1,045
			WB		1,128		1,012
3	Mason Avenue / Lassen Street	09/21/2016	NB	7:15	835	4:30	1,639
			SB		2,039		898
			EB		1,070		1,382
			WB		982		701
4	Mason Avenue / Plummer Street	09/21/2016	NB	7:15	967	4:30	1,519
			SB		1,940		898
			EB		394		882
			WB		823		582
5	Mason Avenue / Nordhoff Street	09/21/2016	NB	7:15	1,174	4:30	1,049
			SB		1,621		1,109
			EB		675		1,538
			WB		1,135		807
6	Winnetka Avenue / Lassen Street	09/21/2016	NB	7:15	693	4:30	1,324
			SB		1,042		503
			EB		953		1,084
			WB		969		633

[1] National Data & Surveying Services



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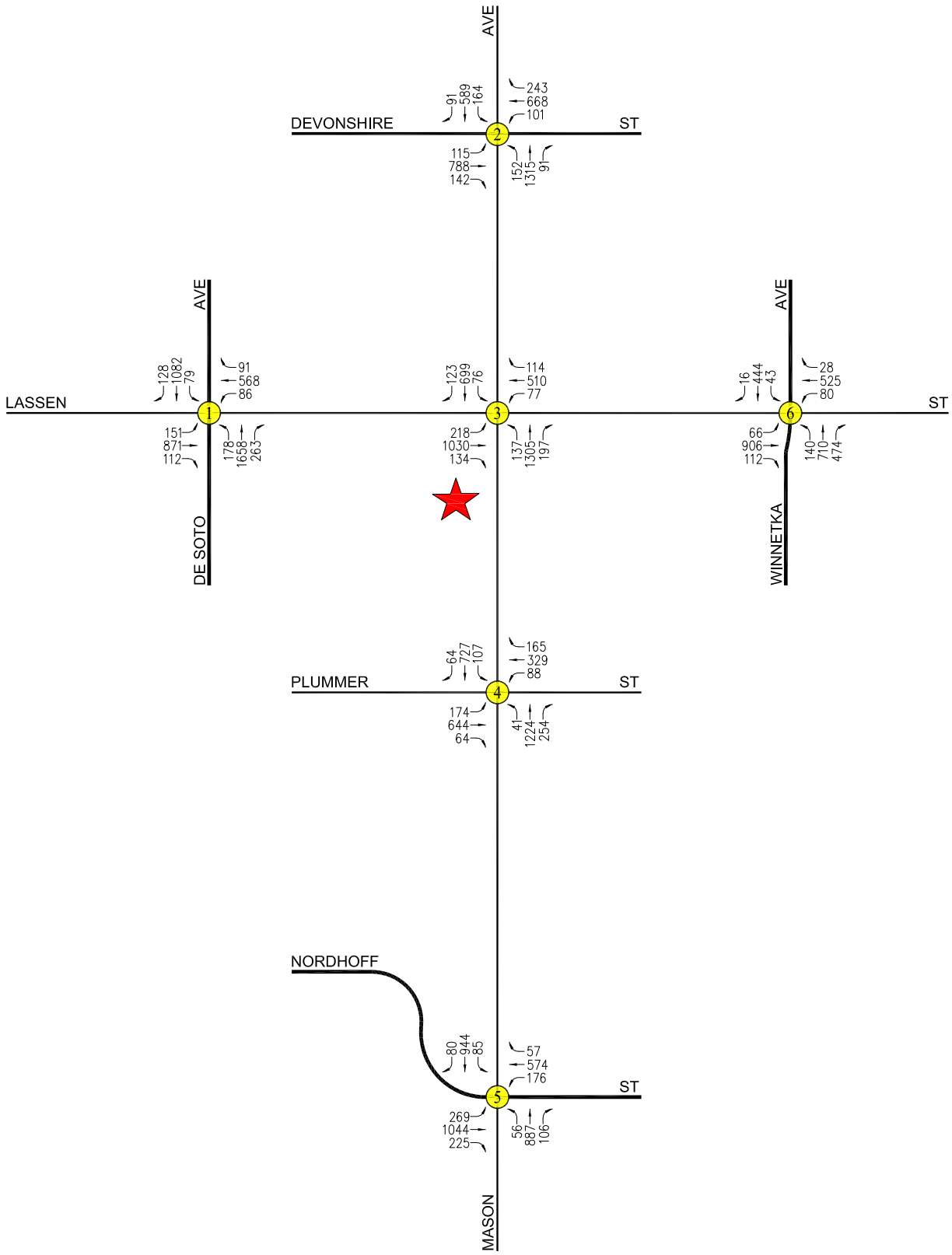
★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 5-1
EXISTING TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT



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★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 5-2
EXISTING TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR

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SWC MASON/LASSEN PROJECT

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6.0 CUMULATIVE DEVELOPMENT PROJECTS

The forecast of future pre-Project conditions was prepared in accordance to procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in CEQA Guidelines for purposes of developing the forecast.

6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information on file at the City of Los Angeles Departments of Transportation and Planning. The list of related projects in the Project site area is presented in ***Table 6–1***. The location of the related projects is shown in ***Figure 6–1***.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual[4]. The related projects' respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Table 6–1*. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in ***Figures 6–2*** and ***6–3***, respectively.

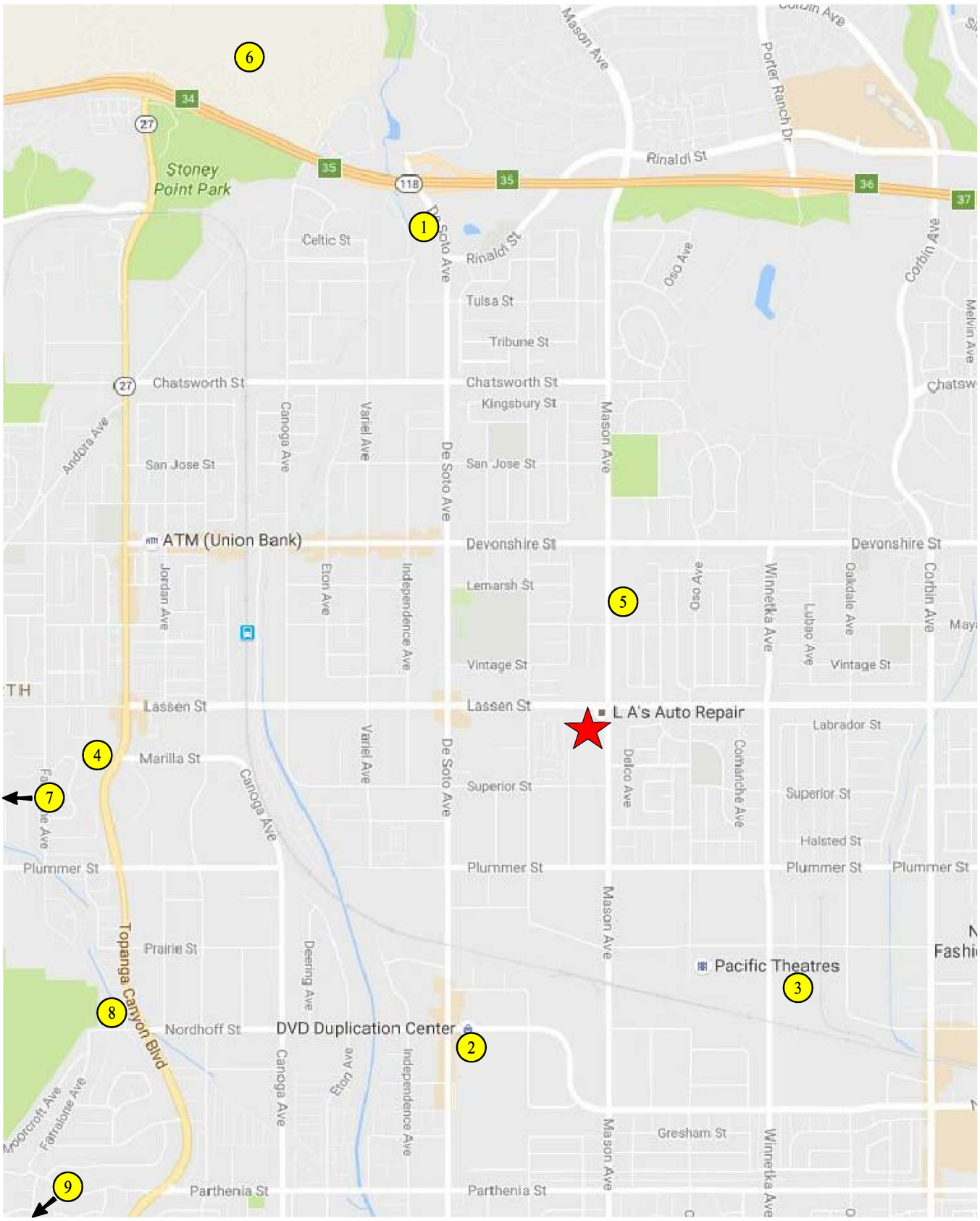
[4] Institute of Transportation Engineers *Trip Generation* manual, 9th Edition, Washington, D.C., 2012.

Table 6-1
RELATED PROJECTS LIST AND TRIP GENERATION [1]

18-Oct-16

MAP NO.	PROJECT NAME/ PROJECT NUMBER	PROJECT STATUS	ADDRESS/ LOCATION	LAND USE DATA		DAILY TRIP ENDS [2]	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
				LAND-USE	SIZE	VOLUMES	IN	OUT	TOTAL	IN	OUT	TOTAL
1	Sierra Canyon Athletic Fields [3]	Proposed	11047 De Soto Avenue	Courts/Fields		122	0	0	0	61	6	67
2	Chatsworth Commerce Center	Built	20842 Nordhoff Street	Fast-Food Restaurant Specialty Retail Manufacturing	7,000 GSF 10,200 GSF 112,278 GSF	2,573	152	100	252	100	121	221
3	MGA Mixed Use Chatsworth Campus [4]	Proposed	20000 W. Prairie Street	Corporate Headquarters Creative Office Retail Restaurant Apartments	212,815 GSF 43,000 GSF 11,000 GSF 3,000 GSF 700 DU	8,157	441	347	788	371	489	860
4	Radisson Hotel [5]	Proposed	9755 Topanga Canyon Boulevard	Hotel	136 Rooms	1,111	42	30	72	42	40	82
5	Fitness 19	Proposed	10130 Mason Avenue	Shopping Center	16,788 GSF	413	10	11	21	28	19	47
6	Deerlake Ranch Project [6]	Proposed	North of State Route 118, between Topanga Canyon Boulevard and Canoga Avenue	Single-Family Homes	314 DU	2,898	68	201	269	188	106	294
7	Andora Subdivision Project [7]	Proposed	Northwest of Andora Avenue & Plummer Street	Single-Family Homes	42 DU	400	8	24	32	26	16	42
8	Detached Condominiums [7]	Proposed	22001 Nordhoff Street	Detached Condominiums	55 DU	320	4	20	24	19	9	28
9	Single Family Residence [7]	Proposed	8500 Fallbrook Avenue	Single-Family Homes	90 DU	857	17	51	68	57	33	90
TOTAL						16,851	742	784	1,526	892	839	1,731

[1] Source: City of Los Angeles Department of Transportation Related Projects List
[2] Trips are one-way traffic movements, entering or leaving.
[3] Source: Traffic Impact Study for the Sierra Canyon School Athletic Field Project, prepared by Overland Traffic Consultants, Inc., Updated January 17, 2008.
[4] Source: Traffic Impact Study for the MGA Chatsworth Mixed-Use Project, prepared by Overland Traffic Consultants, Inc., Updated October 2014.
[5] Source: Traffic Impact Study for the Chatsworth Hotel Project, prepared by Linscott, Law & Greenspan, Engineers, August 25, 2015.
[6] Source: Traffic Impact Study for the Deerlake Ranch Project, prepared by Linscott, Law & Greenspan, Engineers. July 11, 2002.
[7] Source: Traffic Impact Study for the Andora Estates Project, prepared by Overland Traffic Consultants, Inc., Updated October 20,2015.



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MAP SOURCE: GOOGLE MAPS
PROJECT SITE
RELATED PROJECT

FIGURE 6-1
LOCATION OF RELATED PROJECTS

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT

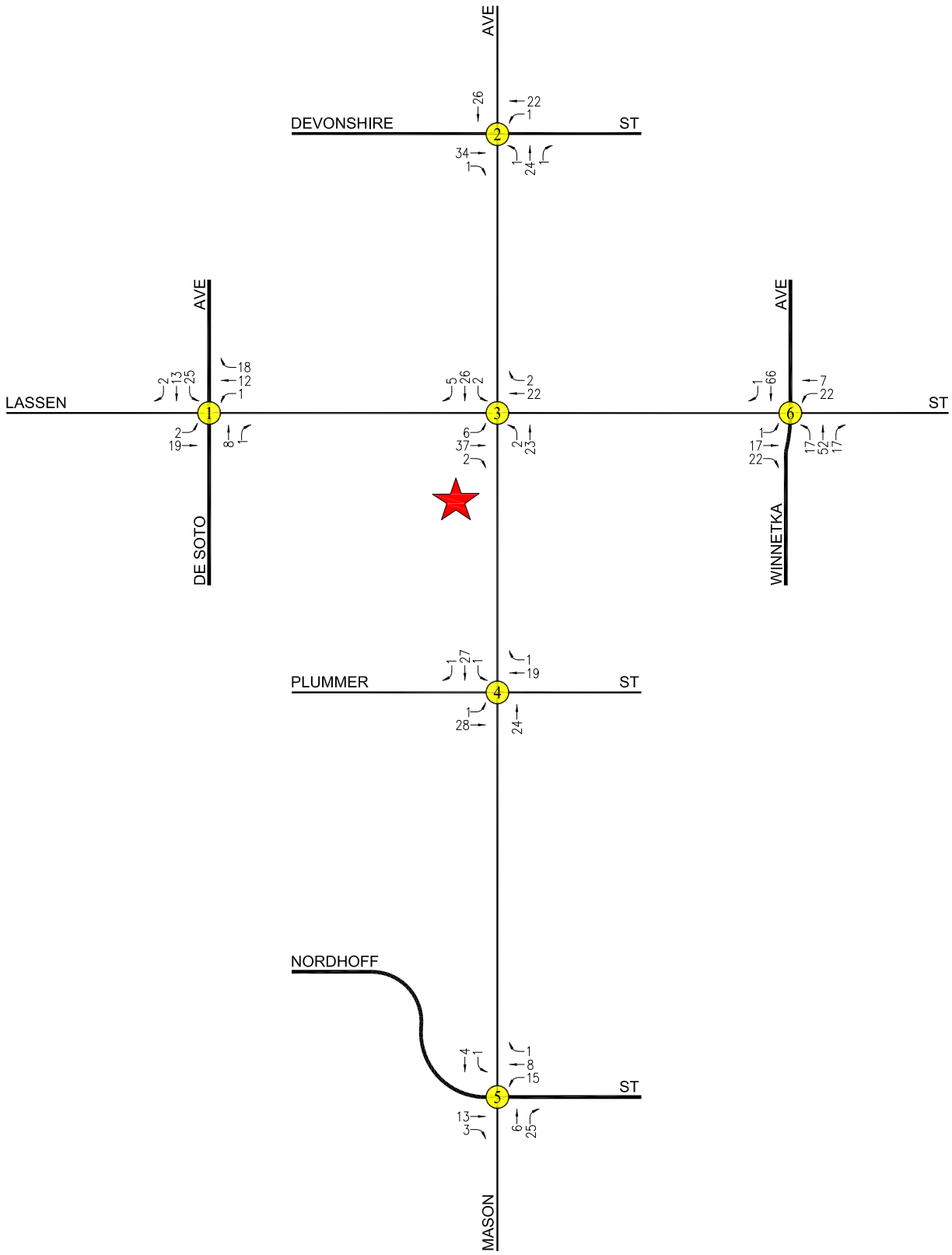

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FIGURE 6-2
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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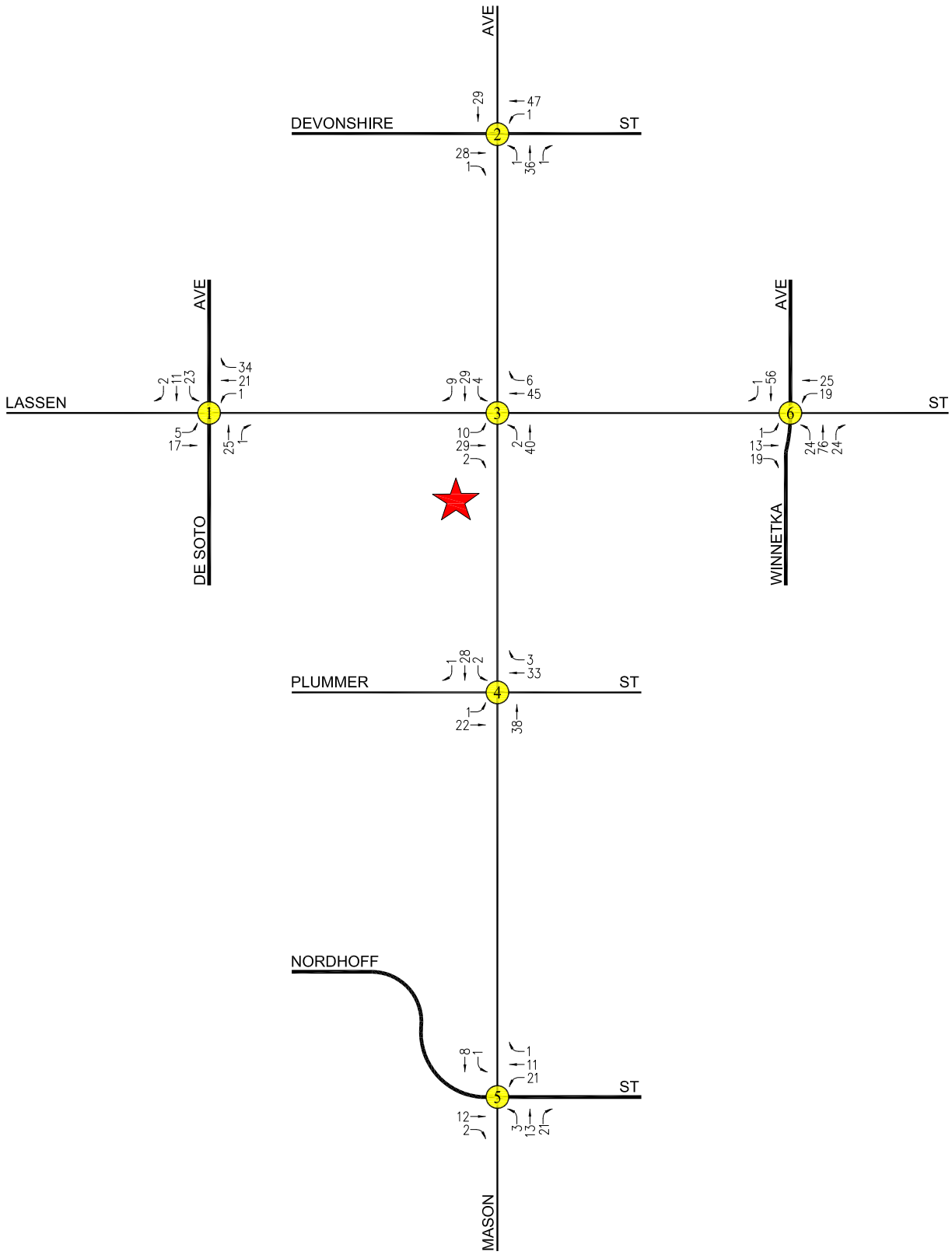

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(XX) STUDY INTERSECTION

FIGURE 6-3
RELATED PROJECTS TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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6.2 Ambient Traffic Growth Factor

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 2.0 percent (2.0%) per year to the year 2018 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the *2010 Congestion Management Program for Los Angeles County* (the "CMP manual") and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the San Fernando Valley area, it is anticipated that the existing traffic volumes are only expected to increase at an annual rate of less than 0.54% per year between the years 2015 and 2020. Thus, application of an annual growth factor of 2.0% allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Therefore, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

7.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the SWC Mason/Lassen Project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the Project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using existing and expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts identified.

7.1 Project Traffic Generation

Traffic volumes expected to be generated by the proposed SWC Mason/Lassen Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE *Trip Generation* manual. The following trip generation rates were used to forecast the traffic volumes expected to be generated by the Project land use components:

- Hotel: ITE Land Use Code 310 (Hotel) trip generation average rates were used to forecast the traffic volumes expected to be generated by the hotel component of the Project.

- Health Club: ITE Land Use Code 492 (Health/Fitness Club) trip generation average rates were used to forecast the traffic volumes expected to be generated by the health club component of the Project.

- Fast-Food Restaurant with Drive-Through: ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) trip generation average rates were used to forecast the traffic volumes expected to be generated by the fast-food component of the Project.

- High-Turnover Restaurant: ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates were used to forecast the traffic volumes expected to be generated by the restaurant component of the Project.

- Coffee Shop with Drive-Through: ITE Land Use Code 937 (Coffee/Donut Shop with Drive-Through Window) trip generation average rates were used to forecast the traffic volumes expected to be generated by the coffee shop component of the Project.

In addition to the trip generation forecasts for the proposed Project land use components (which are essentially an estimate of the number of vehicles that could be expected to enter and exit the Project site access points), an internal capture adjustment has been applied for the Project to account for the synergistic effects of the planned land use mix. Internal capture trips are those trips made internal to the site between land uses in a mixed or multi-use development. When combined within a mixed or multi-use development, land uses tend to interact, and thus attract a portion of each other's trip generation. An internal capture adjustment of 10% has been utilized to account for the interaction between the hotel and commercial land uses.

An adjustment was also made to the trip generation forecast based on the Project site's existing land uses. The existing land uses to be removed include a 1,032 square foot automobile care center, 20,125 square feet of RV/boat storage, and 23,820 square feet of retail space. ITE Land Use Code 942 (Automobile Care Center) trip generation average rates were used to estimate the trips generated by the existing automobile care center within the Project site. ITE Land Use Code 150 (Warehousing) trip generation average rates were used to estimate the trips generated by the existing RV/boat storage within the Project site. ITE Land Use Code 820 (Shopping Center) trip generation average rates were used to estimate the trips generated by the existing retail within the Project site.

Furthermore, a forecast was also made of transit trips. The transit reduction is based on the site's proximity to the various bus lines, as well as the land use characteristics of the Project. As shown in *Table 4–1* and *Figure 4–2*, the Project site is well served by public transit. A transit adjustment of 5% has been utilized.

Lastly, a forecast was made of likely pass-by trips. Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. In this instance, the adjacent roadways to the Project site include Mason Avenue and Lassen Street. Based on the *LADOT Policy on Pass-By Trips*, a 20% pass-by reduction adjustment was applied to the health club and high-turnover restaurant land use components of the Project. A 50% pass-by reduction adjustment was applied to the fast-food with drive-through and coffee shop with drive-through components of the Project. Lastly, a 10% and 50% pass-by reduction adjustment was applied to the existing automobile care center and retail land use components of the Project site, respectively.

The trip generation forecast for the Project was submitted for review and approval by LADOT staff. As presented in ***Table 7–1***, the Project is expected to generate 345 net new vehicle trips (180 inbound trips and 165 outbound trips) during the AM peak hour. During the PM peak hour, the Project is expected to generate 257 net new vehicle trips (142 inbound trips and 115 outbound trips). Over a 24-hour period, the Project is forecast to generate a net increase of 3,715 daily trip ends (approximately 1,858 inbound trips and 1,857 outbound trips) during a typical weekday.

7.2 Project Traffic Distribution and Assignment

Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

- The site's proximity to major traffic corridors (i.e. De Soto Avenue, Winnetka Avenue, Devonshire Street, SR-118 Freeway, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project site assuming the site access and circulation scheme described in Section 3.0;
- The location of existing and proposed parking areas;
- Nearby population and employment centers as well as adjacent residential neighborhoods;

The general, directional traffic distribution patterns for the Project are presented in ***Figure 7–1***. The forecast net new weekday AM and PM peak hour Project traffic volumes at the study intersections associated with the Project are presented in ***Figures 7–2*** and ***7–3***, respectively. The traffic volume assignments presented in *Figures 7–2* and *7–3* reflect the traffic distribution characteristics shown in *Figure 7–1* and the Project traffic generation forecast presented in *Table 7–1*.

Table 7-1
PROJECT TRIP GENERATION [1]

18-Oct-16

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2] IN	AM PEAK HOUR VOLUMES [2] OUT	AM PEAK HOUR VOLUMES [2] TOTAL	PM PEAK HOUR VOLUMES [2] IN	PM PEAK HOUR VOLUMES [2] OUT	PM PEAK HOUR VOLUMES [2] TOTAL
Proposed Project [3]								
Hotel (Building 4) [4]	125 Rooms	1,021	39	27	66	38	37	75
Health Club (Bldg. 1) [5]	20,125 GSF	663	14	14	28	40	31	71
Fast-Food Restaurant w/ DT (Bldg. 7 & 8) [6]	6,400 GSF	3,175	148	143	291	109	100	209
High-Turnover Restaurant (Bldg. 5) [7]	10,350 GSF	1,316	62	50	112	61	41	102
Coffee Shop with Drive-Through (Bldg. 6) [8]	2,000 GSF	1,637	103	98	201	43	43	86
Subtotal		7,812	366	332	698	291	252	543
Existing to be Removed								
Automobile Care Center [9]	(1,032) GLSF	(30)	(1)	(1)	(2)	(2)	(1)	(3)
RV/Boat Storage [10]	(20,125) GSF	(72)	(5)	(1)	(6)	(2)	(4)	(6)
Retail [11]	(23,820) GLSF	(1,023)	(15)	(9)	(24)	(44)	(45)	(89)
Subtotal		(1,125)	(21)	(11)	(32)	(48)	(50)	(98)
Transit [12] (5%)								
Hotel		(51)	(2)	(1)	(3)	(2)	(2)	(4)
Health Club		(33)	(1)	(1)	(2)	(2)	(2)	(4)
Fast-Food Restaurant w/ DT		(159)	(7)	(7)	(14)	(5)	(5)	(10)
High-Turnover Restaurant		(66)	(3)	(3)	(6)	(3)	(2)	(5)
Coffee Shop w/ DT		(82)	(5)	(5)	(10)	(2)	(2)	(4)
Subtotal		(391)	(18)	(17)	(35)	(14)	(13)	(27)
Existing Transit [12] (5%)								
Automobile Care Center		2	0	0	0	0	0	0
RV/Boat Storage		4	0	0	0	0	0	0
Retail		51	1	0	1	2	2	4
Subtotal		57	1	0	1	2	2	4
Internal Capture [13] (10%)								
Hotel		(97)	(4)	(3)	(7)	(4)	(4)	(8)
Health Club		(63)	(1)	(1)	(2)	(4)	(3)	(7)
Fast-Food Restaurant w/ DT		(302)	(14)	(14)	(28)	(10)	(10)	(20)
High-Turnover Restaurant		(125)	(6)	(5)	(11)	(6)	(4)	(10)
Coffee Shop w/ DT		(156)	(10)	(9)	(19)	(4)	(4)	(8)
Subtotal		(743)	(35)	(32)	(67)	(28)	(25)	(53)
Driveway Subtotal		**5,610**	**293**	**272**	**565**	**203**	**166**	**369**
Pass-By Trips [14]								
Health Club (20%)		(113)	(2)	(2)	(4)	(7)	(5)	(12)
Fast-Food Restaurant w/ DT (50%)		(1,357)	(64)	(61)	(125)	(47)	(43)	(90)
High-Turnover Restaurant (20%)		(225)	(11)	(8)	(19)	(10)	(7)	(17)
Coffee Shop w/ DT (50%)		(700)	(44)	(42)	(86)	(19)	(19)	(38)
Existing Pass-By Trips [14]								
Automobile Care Center (10%)		14	1	1	2	1	1	2
Retail (50%)		486	7	5	12	21	22	43
NET TRIPS		**3,715**	**180**	**165**	**345**	**142**	**115**	**257**

[1] Source: ITE "Trip Generation", 9th Edition, 2012.
[2] Trips are one-way traffic movements, entering or leaving

[3] Note: Buildings 2 and 3 are currently retail uses and are proposed to remain as retail in conjunction with the proposed project. As their trip generation potential will not change, these buildings are not included in the trip generation forecast of net new trips related to the proposed project.

[4] ITE Land Use Code 310 (Hotel) trip generation average rates.
- Daily Trip Rate: 8.17 trips/room; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.53 trips/room; 59% inbound/41% outbound
- PM Peak Hour Trip Rate: 0.60 trips/room; 51% inbound/49% outbound

[5] ITE Land Use Code 492 (Health/Fitness Club) trip generation average rates.
- Daily Trip Rate: 32.93 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.41 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 3.53 trips/1,000 SF of floor area; 57% inbound/43% outbound

[6] ITE Land Use Code 934 (Fast-Food Restaurant with Drive-Through) trip generation average rates.
- Daily Trip Rate: 496.12 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 45.42 trips/1,000 SF of floor area; 52% inbound/45% outbound
- PM Peak Hour Trip Rate: 32.65 trips/1,000 SF of floor area; 52% inbound/48% outbound

[7] ITE Land Use Code 932 (High-Turnover [Sit-Down] Restaurant) trip generation average rates.
- Daily Trip Rate: 127.15 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 10.81 trips/1,000 SF of floor area; 55% inbound/45% outbound
- PM Peak Hour Trip Rate: 9.85 trips/1,000 SF of floor area; 60% inbound/40% outbound

[8] ITE Land Use Code 937 (Coffee/Donut Shop with Drive-Through Window) trip generation average rates.
- Daily Trip Rate: 818.58 trips/1000 GSF; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 100.58 trips/1000 GSF; 51% inbound/49% outbound
- PM Peak Hour Trip Rate: 42.80 trips/1000 GSF; 50% inbound/50% outbound

[9] ITE Land Use Code 942 (Automobile Care Center) trip generation average rates.
- Daily Trip Rate: No average trip rates available.
- AM Peak Hour Trip Rate: 2.25 trips/1,000 SF of floor area; 66% inbound/34% outbound
- PM Peak Hour Trip Rate: 3.11 trips/1,000 SF of floor area; 48% inbound/52% outbound

Daily trip ends estimated based on the assumption that the higher of the AM or PM total peak hour traffic volume typically represents 10 percent of the daily traffic volume.

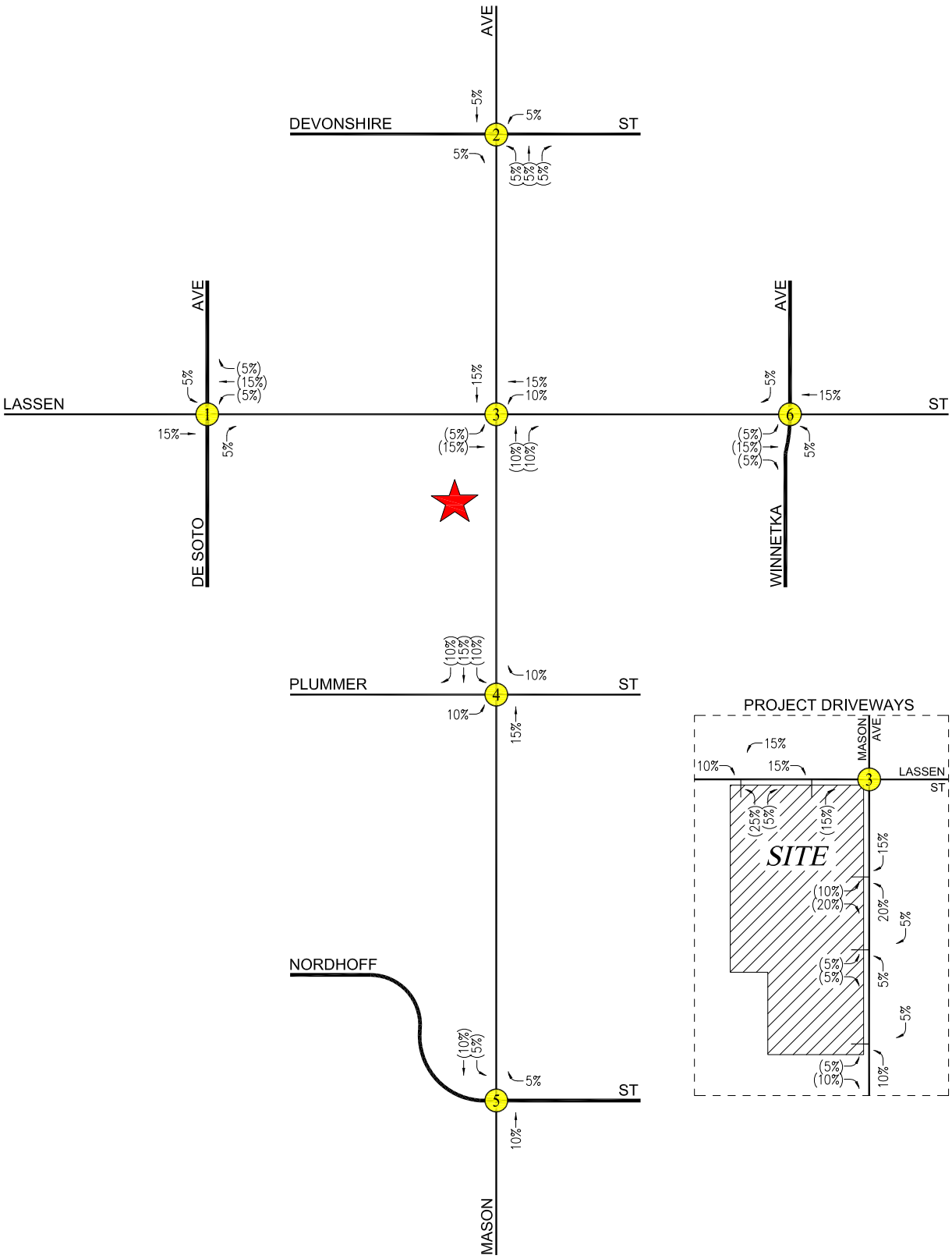
[10] ITE Land Use Code 150 (Warehousing) trip generation average rates.
- Daily Trip Rate: 3.56 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.3 trips/1,000 SF of floor area; 79% inbound/21% outbound
- PM Peak Hour Trip Rate: 0.32 trips/1,000 SF of floor area; 25% inbound/75% outbound

[11] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
- Daily Trip Rate: 42.7 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.96 trips/1,000 SF of floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.71 trips/1,000 SF of floor area; 48% inbound/52% outbound

[12] The Project site is located approximately 1 mile from a Metro Rapid bus stop. The trip reduction for transit trips has been applied to the commercial components of the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for developments not within a 1/4 mile walking distance of a transit station or a RapidBus stop.

[13] The internal capture reduction for the Project is based on the synergy between the hotel and commercial uses provided within the Project site.

[14] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the site. The trip reduction for pass-by trips has been applied to the commercial component of the project based on the "LADOT Traffic Study Policies and Procedures", August 2014 for Recreation/Health Club, Shopping Center less than 50,000 sf, Fast Food Restaurant, High Turnover Restaurant, and Auto Sales/Repair.



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★ PROJECT SITE
(XX) STUDY INTERSECTION
= INBOUND PERCENTAGES
(##) = OUTBOUND PERCENTAGES

FIGURE 7-1
PROJECT TRIP DISTRIBUTION

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT

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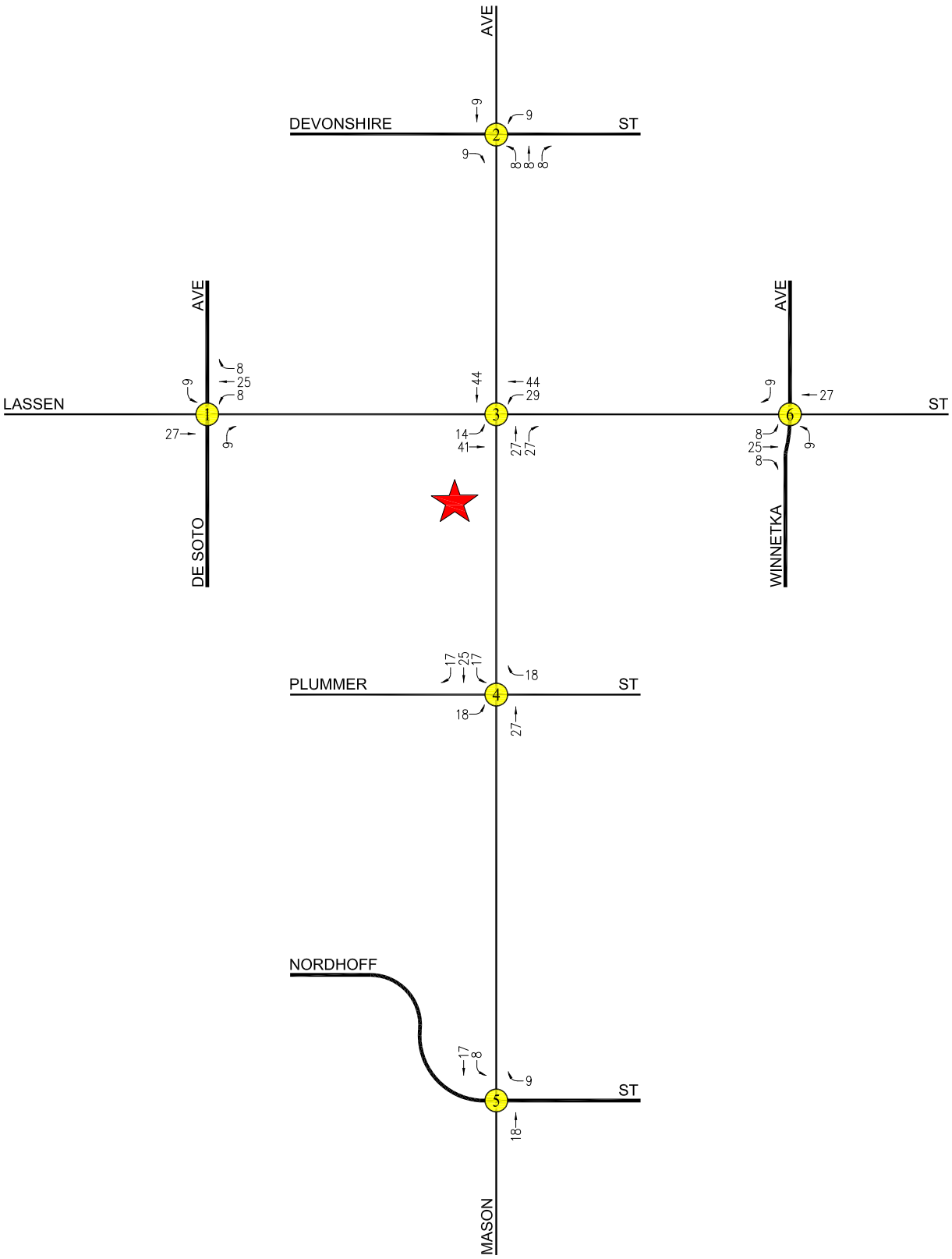

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PROJECT SITE

XX STUDY INTERSECTION

FIGURE 7-2

NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT

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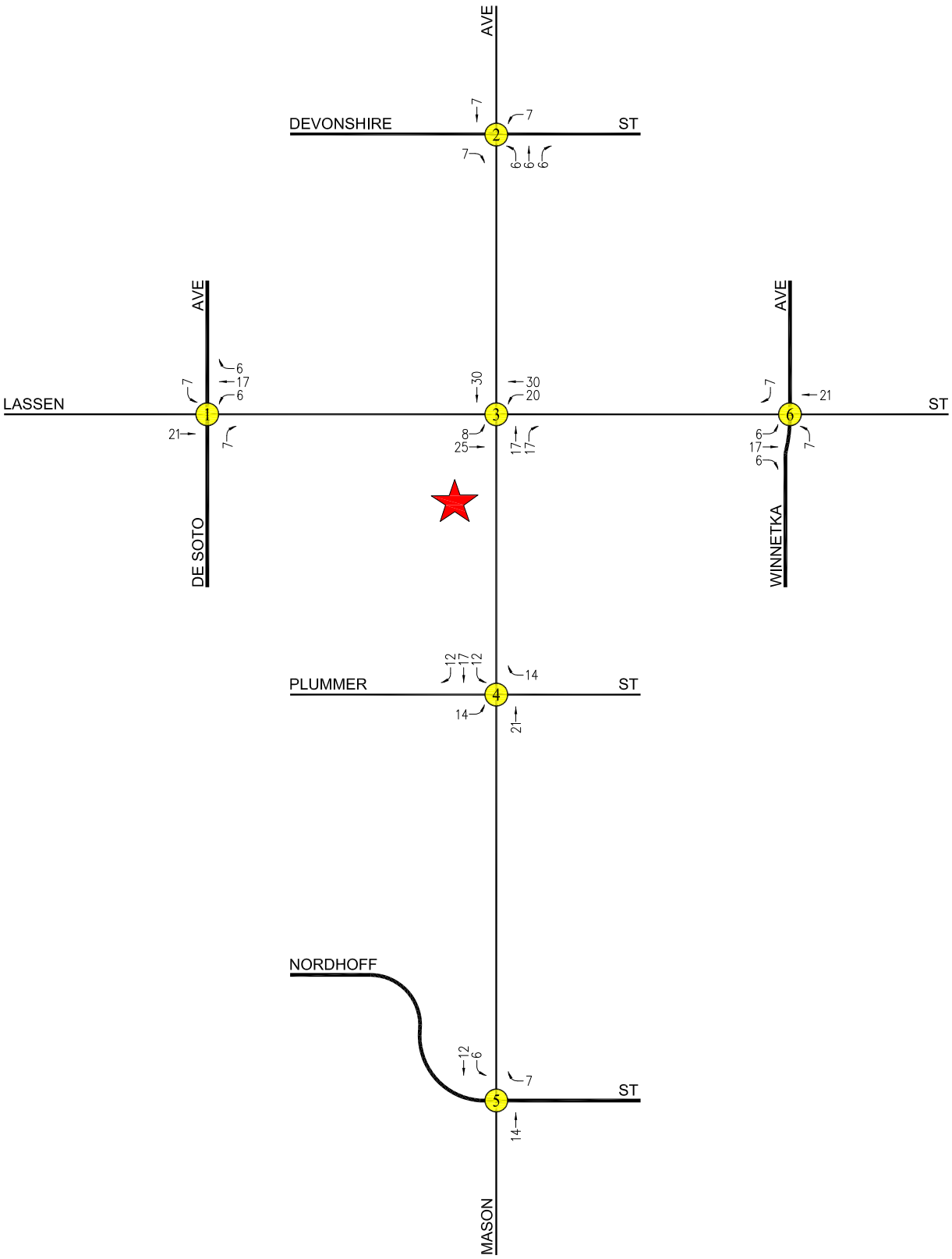

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(XX) STUDY INTERSECTION

FIGURE 7-3

NET NEW PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SWC MASON/LASSEN PROJECT

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8.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (*v/c*) ratios on a critical lane basis. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the CMA method and corresponding Level of Service is provided in ***Appendix B***.

8.1 Impact Criteria and Thresholds

The relative impact of the added traffic volumes to be generated by the Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the study intersections, without and with the Project. The previously discussed capacity analysis procedures were utilized to evaluate the future *v/c* relationships and service level characteristics at each study intersection.

The significance of the potential impacts of Project generated traffic was identified using the traffic impact criteria set forth in LADOT's *Traffic Study Policies and Procedures*, August 2014. According to the City's published traffic study guidelines, the impact is considered significant if the Project-related increase in the *v/c* ratio is equal to or exceeds the thresholds presented in ***Table 8–1***.

Table 8-1
CITY OF LOS ANGELES
INTERSECTION IMPACT THRESHOLD CRITERIA

Final *v/c*	**Level of Service**	**Project Related Increase in *v/c***
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection *v/c* ratio by an amount equal to or greater than the values shown above.

8.2 LADOT ATSAC/ATCS

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces the critical *v/c* ratios by seven percent (0.07). The ATCS system upgrade further reduces the critical *v/c* ratios by three percent (0.03) for a total of 10 percent (0.10). According to the City of Los Angeles, ATSAC/ATCS system upgrades for all six study intersections have been implemented. As such, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated.

8.3 Traffic Impact Analysis Scenarios

Pursuant to LADOT's traffic study guidelines, Level of Service calculations have been prepared for the following scenarios for the study intersections:

(a) Existing (2016) conditions;

(b) Condition (a) with completion and occupancy of the Project;

(c) Condition (b) with implementation of Project mitigation measures, where necessary;

(d) Condition (a) plus two percent (2.0%) annual ambient traffic growth through year 2018 and with completion and occupancy of the related projects (i.e., future cumulative baseline);

(e) Condition (d) with completion and occupancy of the Project;

(f) Condition (e) with implementation of Project mitigation measures where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

9.0 TRAFFIC ANALYSIS

The traffic impact analysis prepared for the six study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria is summarized in ***Table 9–1***. The CMA data worksheets for the six analyzed intersections are contained in *Appendix B.*

9.1 Existing Conditions

9.1.1 *Existing Conditions*

As indicated in column [1] of *Table 9–1*, four of the six study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The following intersections are presently operating at LOS E or worse during the peak hours shown below under existing conditions:

- Int. No. 3: Mason Avenue / Lassen Street — AM Peak Hour: *v/c* = 1.017, LOS F
- Int. No. 5: Mason Avenue / Nordhoff Street — AM Peak Hour: *v/c* = 0.925, LOS E

The existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5–1* and *5–2*, respectively.

9.1.2 *Existing With Project Conditions*

As shown in column [2] of *Table 9–1,* application of the City's threshold criteria to the "Existing With Project" scenario indicates that the Project is not expected to create a significant impact at five of the six study intersections. As indicated in *Table 9-1*, a significant traffic impact is expected at the following intersection during the peak hours shown below under existing with project conditions:

- Int. No. 3: Mason Avenue / Lassen Street — AM Peak Hour *v/c* increases 0.048; PM Peak Hour *v/c* increases 0.033

Incremental, but not significant, impacts are noted at the other five study intersections due to the Project. The existing with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 9–1*** and ***9–2***, respectively.

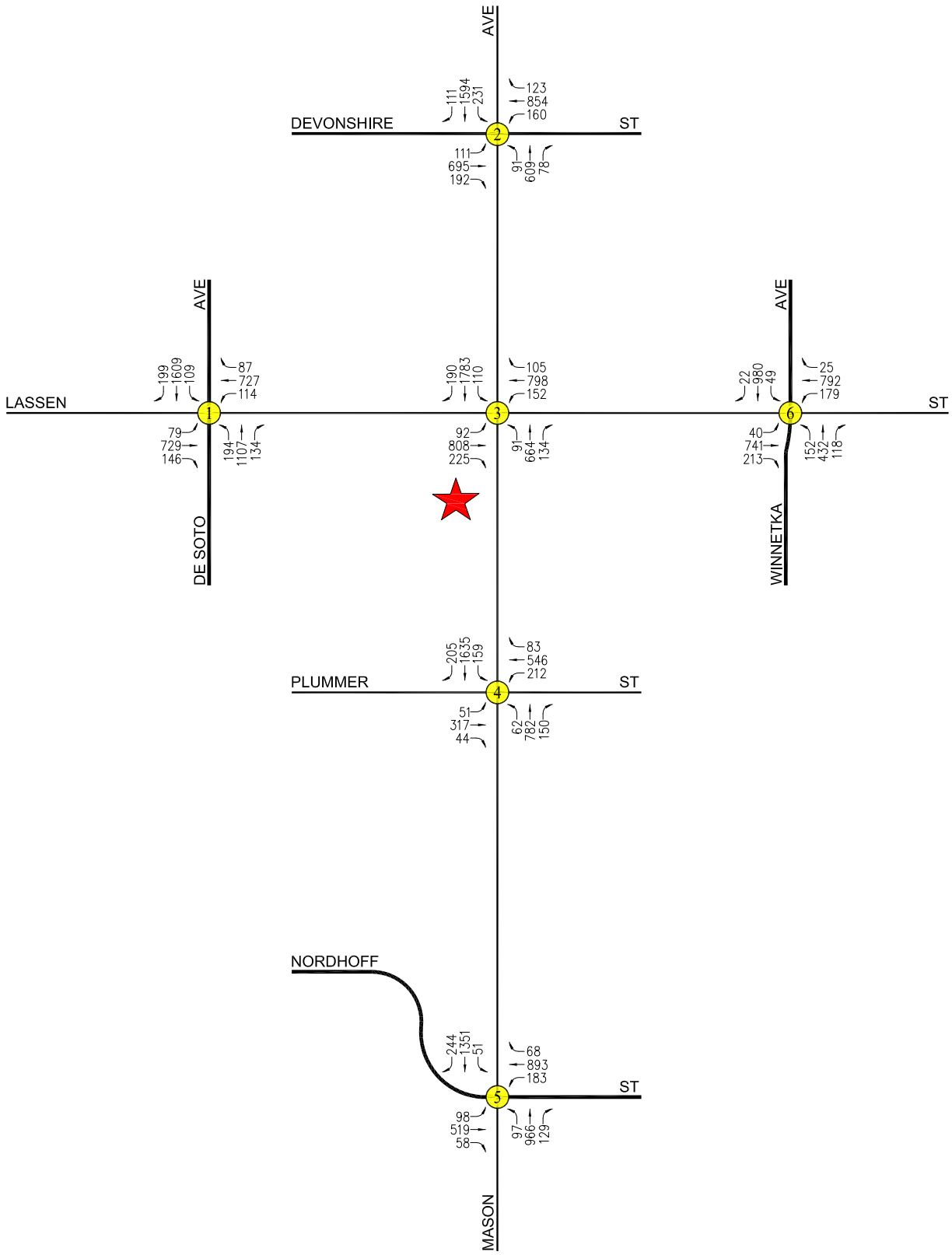
Table 9-1
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS

18-Oct-16

NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2016 EXISTING V/C	LOS	[2] YEAR 2016 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	[3] YEAR 2018 FUTURE PRE-PROJECT V/C	LOS	[4] YEAR 2018 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	[5] YEAR 2018 W/ PROJECT MITIGATION V/C	LOS	CHANGE V/C [(5)-(3)]	MITI-GATED
1	De Soto Ave /	AM	0.831	D	0.847	D	0.016	NO	0.880	D	0.894	D	0.014	NO	0.894	D	0.014	----
	Lassen Street	PM	0.810	D	0.828	D	0.018	NO	0.875	D	0.894	D	0.019	NO	0.894	D	0.019	----
2	Mason Avenue /	AM	0.892	D	0.901	E	0.009	NO	0.950	E	0.958	E	0.008	NO	0.958	E	0.008	----
	Devonshire Street	PM	0.856	D	0.865	D	0.009	NO	0.918	E	0.927	E	0.009	NO	0.927	E	0.009	----
3	Mason Avenue /	AM	1.017	F	1.065	F	0.048	YES	1.087	F	1.134	F	0.047	YES	1.055	F	-0.032	YES
	Lassen Street	PM	0.891	D	0.924	E	0.033	YES	0.957	E	0.991	E	0.034	YES	0.943	E	-0.014	YES
4	Mason Avenue /	AM	0.788	C	0.802	D	0.014	NO	0.843	D	0.857	D	0.014	NO	0.857	D	0.014	----
	Plummer Street	PM	0.737	C	0.753	C	0.016	NO	0.793	C	0.807	D	0.014	NO	0.807	D	0.014	----
5	Mason Avenue /	AM	0.925	E	0.934	E	0.009	NO	0.971	E	0.980	E	0.009	NO	0.980	E	0.009	----
	Nordhoff Street	PM	0.719	C	0.723	C	0.004	NO	0.775	C	0.779	C	0.004	NO	0.779	C	0.004	----
6	Winnetka Avenue /	AM	0.680	B	0.695	B	0.015	NO	0.765	C	0.780	C	0.015	NO	0.780	C	0.015	----
	Lassen Street	PM	0.573	A	0.579	A	0.006	NO	0.627	B	0.633	B	0.006	NO	0.633	B	0.006	----

[a] According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010



N

NOT TO SCALE

★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 9-1
EXISTING WITH PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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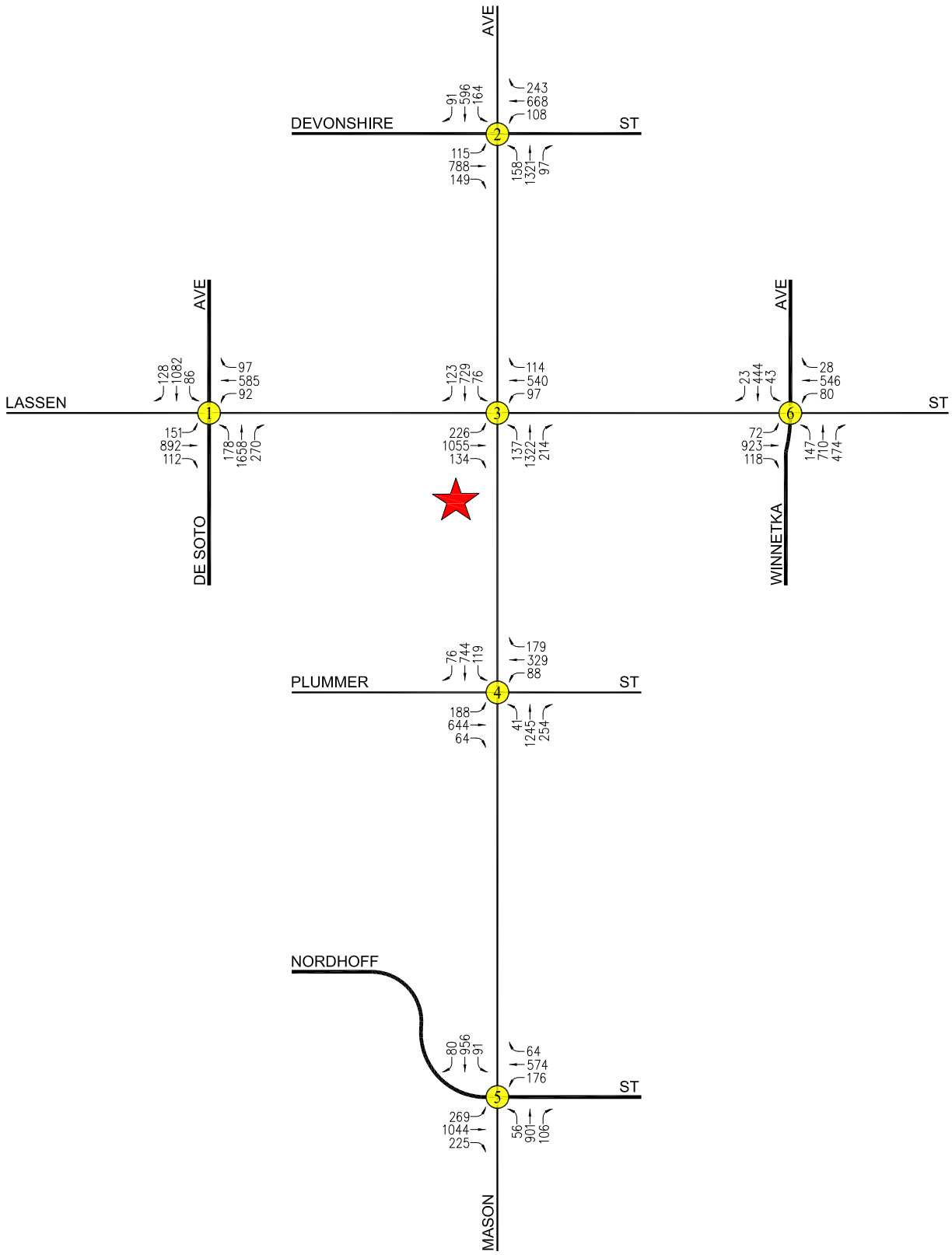

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NOT TO SCALE

★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 9-2
EXISTING WITH PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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9.2 Future Conditions

9.2.1 *Future Cumulative Baseline Conditions*

The future cumulative baseline conditions were forecast based on the addition of traffic generated by the plus completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The *v/c* ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in *Table 6–1*.

As presented in column [3] of *Table 9–1*, three of the six study intersections are expected to operate at LOS D or better during the weekday AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline condition. The following intersections are expected to operate at LOS E or worse during the peak hours shown below under future cumulative baseline conditions:

- Int. No. 2: Mason Avenue / Devonshire Street — AM Peak Hour: *v/c* = 1.087, LOS F; PM Peak Hour: *v/c* = 0.957, LOS E
- Int. No. 3: Mason Avenue / Lassen Street — AM Peak Hour: *v/c* = 0.971, LOS E
- Int. No. 5: Mason Avenue / Nordhoff Street — AM Peak Hour: *v/c* = 0.950, LOS E; PM Peak Hour: *v/c* = 0.918, LOS E

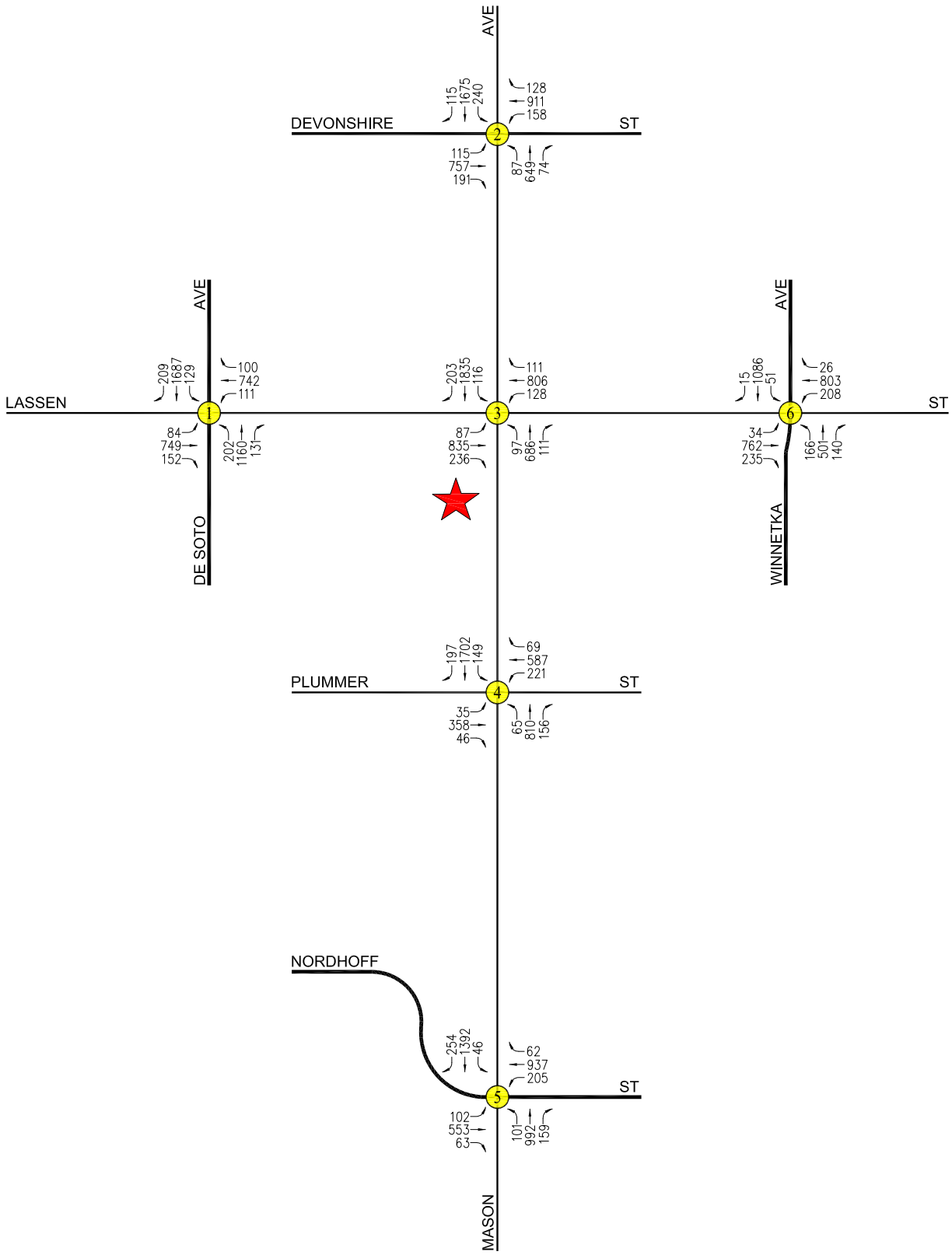
The future cumulative baseline (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in ***Figures 9–3*** and ***9–4***, respectively.

9.2.2 *Future Cumulative With Project Conditions*

The future cumulative with Project conditions were forecast based on the addition of traffic generated by the Project plus completion and occupancy of related projects. As shown in column [4] of *Table 9–1*, application of the City's threshold criteria to the "Future With Project" scenario indicates that the Project is not expected to create a significant impact at five of the six study intersections. As indicated in *Table 9-1*, a significant traffic impact is expected at the following intersection during the peak hours shown below under future cumulative with Project conditions:

- Int. No. 3: Mason Avenue / Lassen Street — AM Peak Hour *v/c* increases 0.047; PM Peak Hour *v/c* increases 0.034

Incremental, but not significant, impacts are noted at the other five study intersections due to the Project. The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 9–5*** and ***9–6***, respectively.



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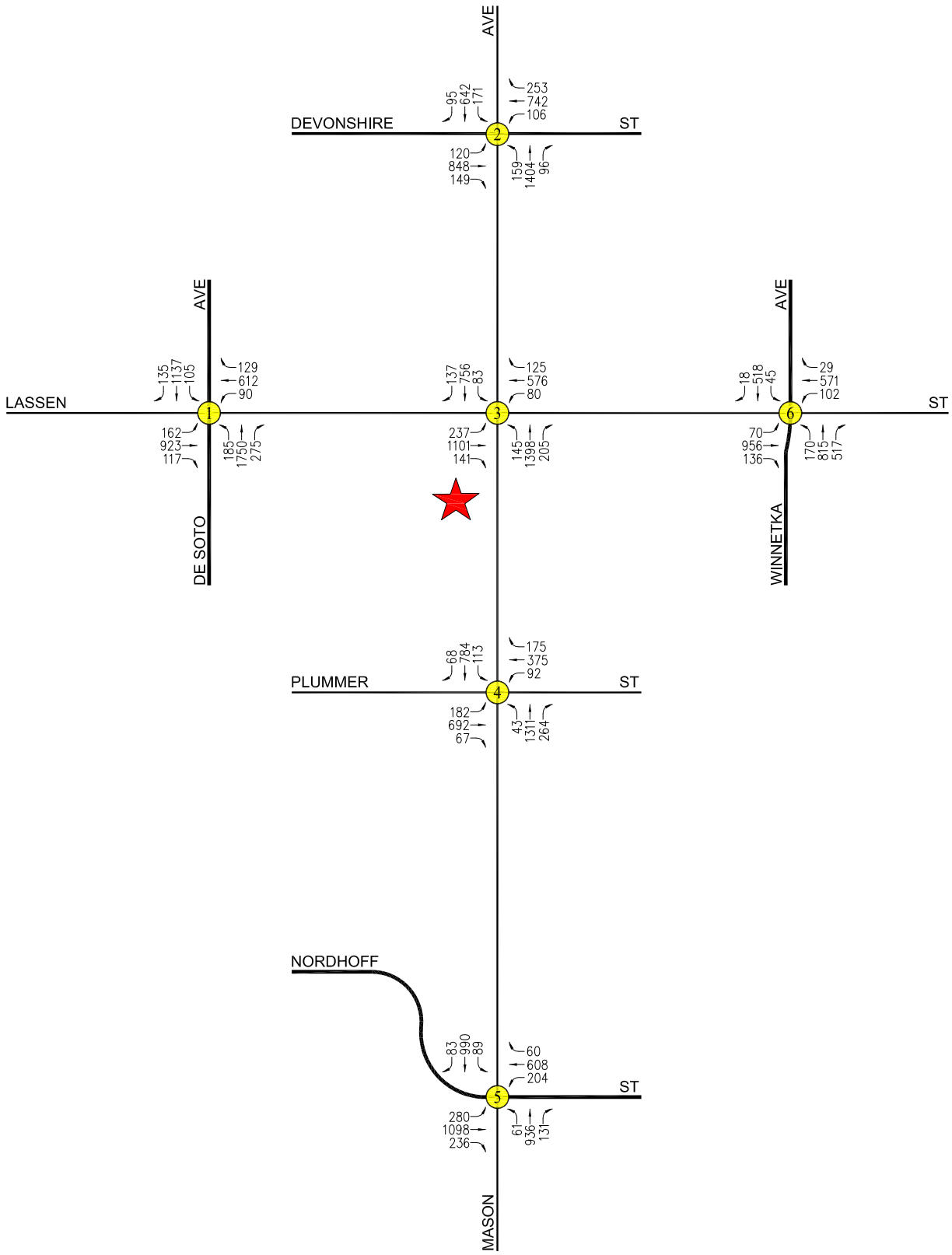
NOT TO SCALE

★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 9-3
FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers



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NOT TO SCALE

★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 9-4
FUTURE CUMULATIVE BASELINE TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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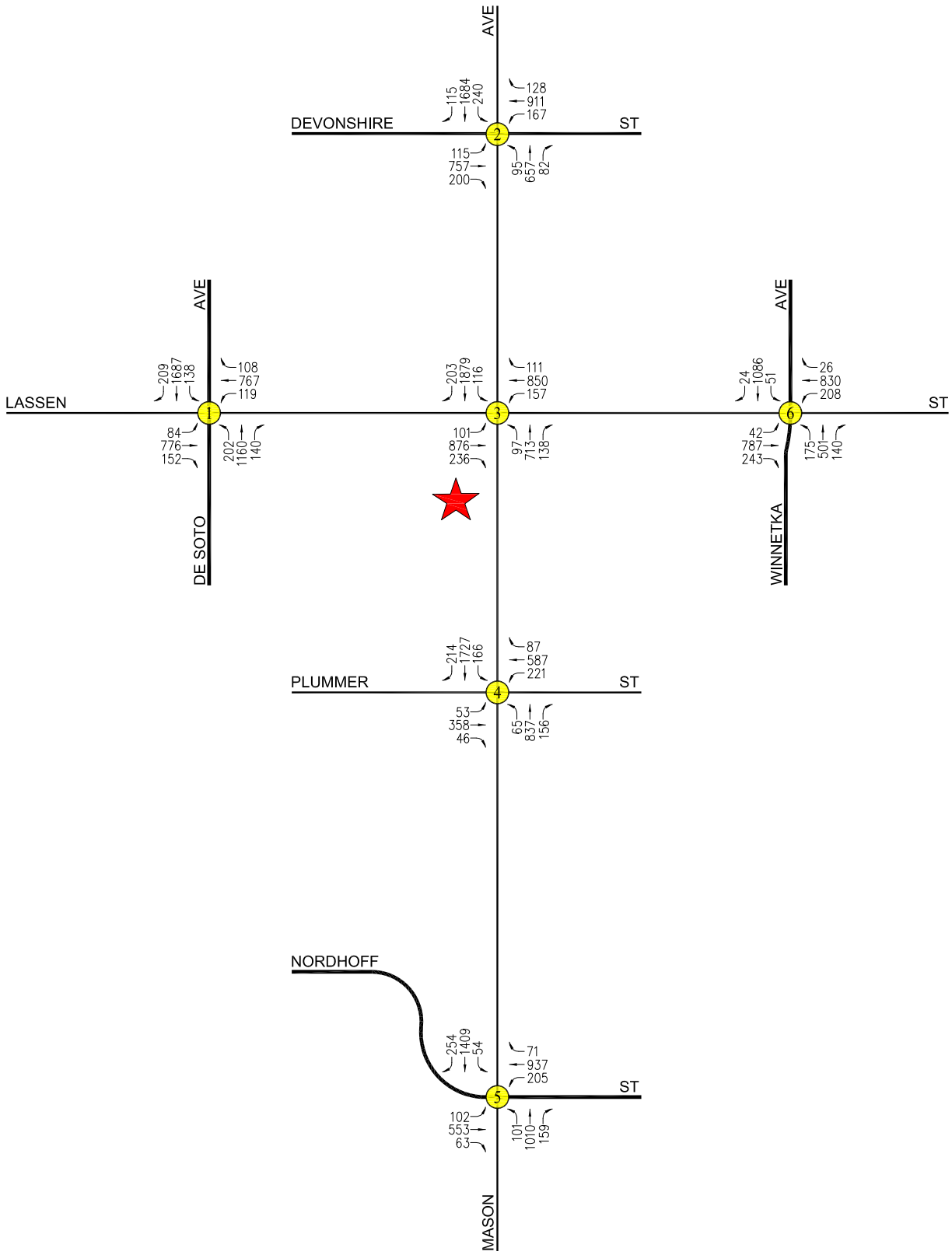

NOT TO SCALE

PROJECT SITE

XX STUDY INTERSECTION

FIGURE 9-5
FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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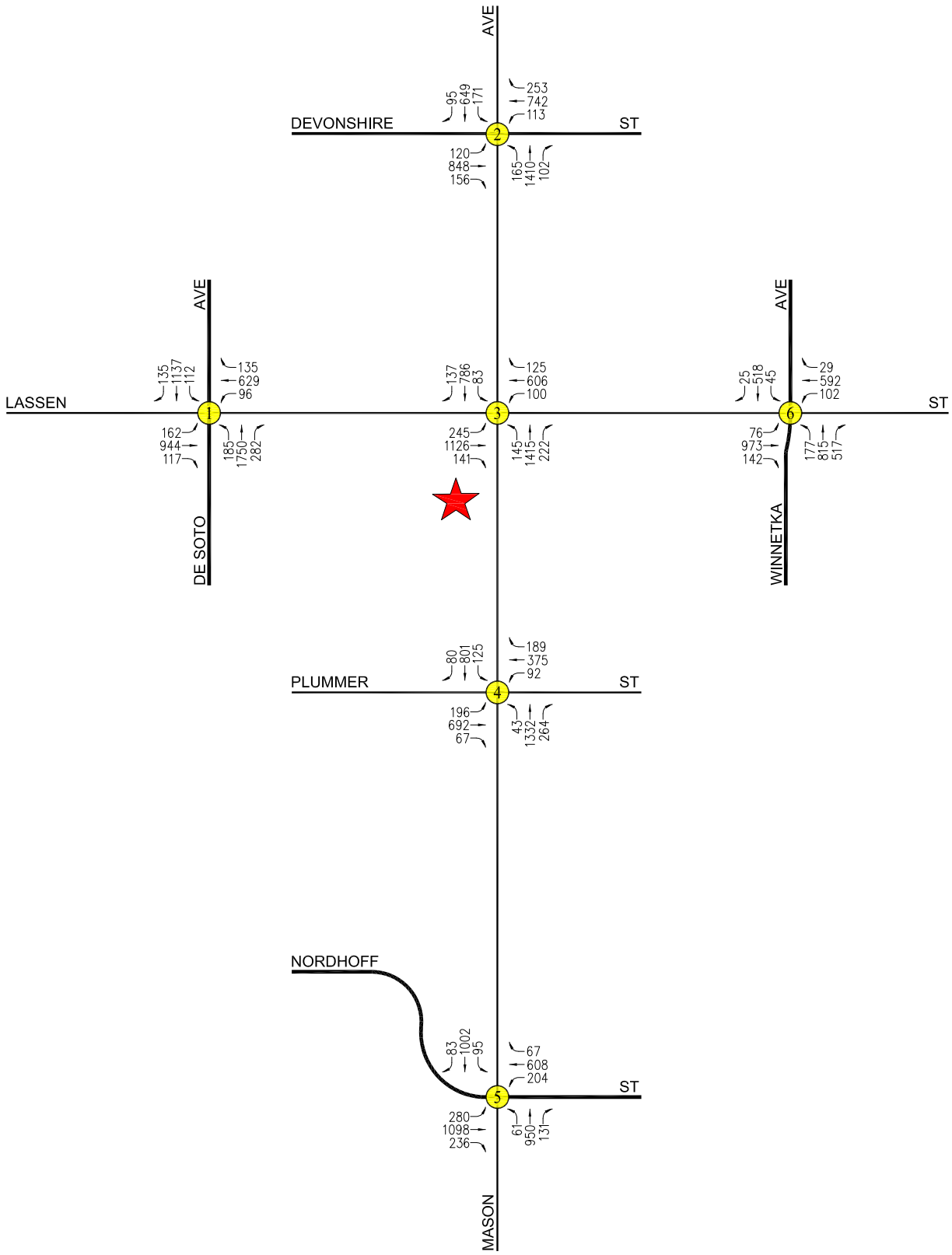

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NOT TO SCALE

★ PROJECT SITE

(XX) STUDY INTERSECTION

FIGURE 9-6
FUTURE CUMULATIVE WITH PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
SWC MASON/LASSEN PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

10.0 MITIGATION MEASURES

The following traffic mitigation measure was developed to mitigate the potentially significant Project-related traffic impacts identified in Section 9.0 above to less than significant levels. The mitigation measure consists of a recommended physical improvement intended to improve the overall operation at the affected intersection.

10.1 Mason Avenue / Lassen Street

The recommended mitigation consists of the installation of a right-turn only lane on the eastbound Lassen Street approach to the Mason Avenue intersection within the existing roadway width. The restriping of the eastbound approach would provide one left-turn lane, two through lanes and one right-turn lane. The measure will require the prohibition of street parking along the south side of Lassen Street west of Mason Avenue adjacent to the Project site. As the Project will provide sufficient on-site parking, the removal of this existing street parking will not adversely affect any adjacent land uses. Changes to the existing traffic signal equipment needed in conjunction with the recommended improvement would also be implemented as part of the mitigation measure.

As shown in Column [5] of *Table 9-1*, the recommended mitigation measure is anticipated to reduce the forecast Project impacts to less than significant levels at the one impacted intersection during all time periods:

- Int. No. 3: Mason Avenue / Lassen Street — AM Peak Hour *v/c* decreases 0.032; PM Peak Hour *v/c* decreases 0.014

11.0 CONGESTION MANAGEMENT PROGRAM TRAFFIC IMPACT ASSESSMENT

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2010 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

> "A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

11.1 Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified:

CMP Station	Intersection
No. 64	Topanga Canyon Boulevard / Devonshire Street

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Project will add 50 or more trips during either the AM or PM weekday peak hours. The Project will not add 50 or more trips during either the AM or PM weekday peak hours (i.e., of adjacent street traffic) at the CMP monitoring intersections in the Project vicinity, which is stated in the CMP manual as the threshold criteria for a traffic impact assessment. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

11.2 Freeways

The following CMP freeway monitoring locations have been identified in the Project vicinity:

- CMP Station — Location

  No. 1051 — SR-118 Freeway at LA/Ventura County Line

The CMP TIA guidelines require that freeway monitoring locations must be examined if the Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The Project will not add 150 or more trips (in either direction) during either the AM or PM weekday peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

11.3 Transit Impact Review

As required by the *2010 Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the Project on transit service. As discussed in Subsection 4.5 herein, existing transit service is provided in the vicinity of the proposed SWC Mason/Lassen Project.

The Project trip generation, as shown in *Table 7–1*, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the Project is forecast to generate demand for 17 transit trip during the AM peak hour and 13 transit trips during the PM peak hour. Over a 24-hour period, the Project is forecast to generate demand for 183 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour = $345 \times 1.4 \times 0.035 = 17$ Transit Trip
- PM Peak Hour = $257 \times 1.4 \times 0.035 = 13$ Transit Trips
- Daily Trips = $3{,}715 \times 1.4 \times 0.035 = 183$ Transit Trips

As shown in *Table 4–1,* nine transit lines are within radius of the Project site. As outlined in *Table 4–1*, under the "No. of Buses/Trains During Peak Hour" column, these nine transit lines provide services for an average of (i.e., average of the directional number of buses/trains during the peak hours) generally 36 buses/trains during the AM peak hour and 27 buses/trains during the PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond to an insignificant number of additional Project-generated transit trips per bus/train. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips.

12.0 CONCLUSIONS

This traffic impact analysis has been prepared to evaluate the potential impacts to the local street system due to the proposed SWC Mason/Lassen Project. Six intersections were identified and analyzed in order to determine changes in operations following construction and occupancy of the Project. Application of the impact threshold criteria from the City of Los Angeles to the "With Proposed Project" scenarios indicates that five of the six study intersections are not anticipated to be significantly impacted by the Project. It was determined that the Project would result in a significant traffic impact at Intersection No. 3 (Mason Avenue / Lassen Street) during the weekday AM and PM peak hours. The impacts of the Project would be reduced to less than significant levels by installing a right-turn only lane to the eastbound Lassen Street approach to the Mason Avenue intersection. The measure can be implemented through roadway restriping and prohibition of street parking on Lassen Street adjacent to the Project site. With implementation of the mitigation measure, the impact of the Project is eliminated. Incremental, but not significant, impacts due to the Project are noted at the remaining five study intersections evaluated in this analysis. As no significant impacts are expected due to the Project at the other five study intersections, no traffic mitigation measures are required or recommended for those five study intersections.

APPENDIX A

MANUAL TRAFFIC COUNT DATA

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South De Soto Ave

East/West Lassen St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	255	250	114	72
BIKES	12	7	12	12
BUSES	31	23	8	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	475	7.30	519	7.00	271	7.45	269	7.30
PM PK 15 MIN	566	17.00	339	17.00	312	16.30	210	16.30
AM PK HOUR	1442	7.00	1954	7.00	927	7.15	887	7.15
PM PK HOUR	2099	16.30	1311	16.15	1134	16.30	745	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	195	1122	125	1442
8-9	87	876	68	1031
9-10	101	803	76	980
15-16	170	1497	171	1838
16-17	159	1554	243	1956
17-18	162	1578	241	1981
TOTAL	874	7430	924	9228

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	102	1661	191	1954
8-9	53	1657	144	1854
9-10	86	1298	123	1507
15-16	80	1076	127	1283
16-17	82	1067	133	1282
17-18	71	1060	109	1240
TOTAL	474	7819	827	9120

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
3396	30	2	70	8
2885	10	0	17	0
2487	5	0	20	1
3121	25	19	35	0
3238	18	1	18	0
3221	20	0	12	0
18348	108	22	172	9

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	82	676	139	897
8-9	65	425	152	642
9-10	72	358	93	523
15-16	109	711	129	949
16-17	152	809	110	1071
17-18	144	799	101	1044
TOTAL	624	3778	724	5126

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	100	677	73	850
8-9	137	520	72	729
9-10	83	335	52	470
15-16	91	550	75	716
16-17	91	548	81	720
17-18	87	547	86	720
TOTAL	589	3177	439	4205

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1747	42	7	49	0
1371	13	0	6	0
993	18	0	6	0
1665	62	10	21	4
1791	30	0	15	0
1764	27	1	7	0
9331	192	18	104	4

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-001

Day: Wednesday

TOTALS

City: Chatsworth

Date: 9/21/2016

AM

NS/EW Streets:	De Soto Ave			De Soto Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	1	2	0	1	2	0	
7:00 AM	29	231	18	17	462	40	20	112	24	30	119	13	1115
7:15 AM	43	323	31	22	409	43	21	169	26	26	184	20	1317
7:30 AM	76	361	38	29	375	57	20	193	41	24	226	19	1459
7:45 AM	47	207	38	34	415	51	21	202	48	20	148	21	1252
8:00 AM	28	216	18	15	410	48	17	138	31	36	144	19	1120
8:15 AM	17	205	22	17	416	28	20	112	46	40	142	26	1091
8:30 AM	19	216	15	8	445	27	14	84	43	36	126	13	1046
8:45 AM	23	239	13	13	386	41	14	91	32	25	108	14	999
9:00 AM	25	209	23	25	381	35	23	98	32	24	94	11	980
9:15 AM	24	194	14	19	327	30	14	91	18	17	77	18	843
9:30 AM	28	185	18	21	274	31	12	89	20	21	82	10	791
9:45 AM	24	215	21	21	316	27	23	80	23	21	82	13	866
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	383	2801	269	241	4616	458	219	1459	384	320	1532	197	12879
APPROACH %'s :	11.09%	81.12%	7.79%	4.53%	86.85%	8.62%	10.62%	70.76%	18.62%	15.62%	74.77%	9.61%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	194	1107	125	100	1609	199	79	702	146	106	702	79	5148
PEAK HR FACTOR :		0.751			0.954			0.855			0.824		0.882

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-001 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

PM

NS/EW Streets:	De Soto Ave			De Soto Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	1	2	0	1	2	0	
3:00 PM	46	327	40	20	266	44	27	166	32	20	141	15	1144
3:15 PM	38	314	25	21	271	27	27	174	39	22	128	19	1105
3:30 PM	39	461	62	22	267	25	32	180	38	22	139	25	1312
3:45 PM	47	395	44	17	272	31	23	191	20	27	142	16	1225
4:00 PM	37	402	66	16	262	32	41	185	30	24	113	22	1230
4:15 PM	35	341	48	25	274	31	36	178	29	23	136	15	1171
4:30 PM	45	428	64	19	257	38	43	239	30	21	165	24	1373
4:45 PM	42	383	65	22	274	32	32	207	21	23	134	20	1255
5:00 PM	55	443	68	22	289	28	35	209	35	23	138	19	1364
5:15 PM	36	404	66	16	262	30	41	216	26	19	131	28	1275
5:30 PM	38	373	59	10	261	21	33	205	17	24	144	24	1209
5:45 PM	33	358	48	23	248	30	35	169	23	21	134	15	1137
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	491	4629	655	233	3203	369	405	2319	340	269	1645	242	14800
APPROACH %'s :	8.50%	80.16%	11.34%	6.12%	84.18%	9.70%	13.22%	75.69%	11.10%	12.48%	76.30%	11.22%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	178	1658	263	79	1082	128	151	871	112	86	568	91	5267
PEAK HR FACTOR :		0.927			0.951			0.909			0.887		0.959

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Mason Ave

East/West Devonshire St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	94	104	68	75
BIKES	2	3	19	18
BUSES	10	8	11	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	233	7.30	507	8.00	301	7.30	293	8.00
PM PK 15 MIN	419	17.30	232	16.45	267	17.00	273	17.30
AM PK HOUR	754	7.15	1927	7.15	989	7.15	1128	7.15
PM PK HOUR	1558	16.45	869	15.00	1045	16.45	1037	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	77	585	70	732
8-9	92	463	64	619
9-10	117	366	71	554
15-16	165	1022	89	1276
16-17	164	1227	133	1524
17-18	154	1283	91	1528
TOTAL	769	4946	518	6233

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	214	1516	112	1842
8-9	180	1331	78	1589
9-10	104	633	60	797
15-16	173	612	84	869
16-17	160	598	96	854
17-18	149	562	88	799
TOTAL	980	5252	518	6750

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2574	14	0	11	0
2208	16	0	21	0
1351	28	0	23	0
2145	22	5	11	0
2378	13	2	8	0
2327	22	2	6	0
12983	115	9	80	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	109	704	167	980
8-9	98	510	140	748
9-10	101	417	107	625
15-16	136	693	156	985
16-17	125	755	144	1024
17-18	110	755	142	1007
TOTAL	679	3834	856	5369

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	146	800	110	1056
8-9	186	719	88	993
9-10	136	416	62	614
15-16	110	646	171	927
16-17	96	620	199	915
17-18	102	694	241	1037
TOTAL	776	3895	871	5542

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2036	10	0	7	0
1741	14	0	8	0
1239	15	0	25	0
1912	19	0	12	3
1939	12	1	8	2
2044	20	0	12	2
10911	90	1	72	7

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-002

Day: Wednesday

TOTALS

City: Chatsworth

Date: 9/21/2016

AM

NS/EW Streets:	Mason Ave			Mason Ave			Devonshire St			Devonshire St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	3	0	1	3	0	
7:00 AM	15	120	12	41	355	26	23	149	33	43	158	20	995
7:15 AM	18	137	20	57	401	40	24	163	41	41	207	24	1173
7:30 AM	20	192	21	61	381	26	32	223	46	27	220	25	1274
7:45 AM	24	136	17	55	379	20	30	169	47	35	215	41	1168
8:00 AM	21	136	12	58	424	25	25	140	49	48	212	33	1183
8:15 AM	22	114	11	50	328	27	25	107	29	49	181	19	962
8:30 AM	20	107	18	28	319	19	24	134	27	48	185	24	953
8:45 AM	29	106	23	44	260	7	24	129	35	41	141	12	851
9:00 AM	24	84	20	28	211	21	23	103	31	38	109	15	707
9:15 AM	28	97	23	29	155	14	17	97	24	34	94	13	625
9:30 AM	29	101	17	22	141	10	38	105	25	33	125	16	662
9:45 AM	36	84	11	25	126	15	23	112	27	31	88	18	596
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	286	1414	205	498	3480	250	308	1631	414	468	1935	260	11149
APPROACH %'s :	15.01%	74.23%	10.76%	11.78%	82.31%	5.91%	13.09%	69.32%	17.59%	17.57%	72.66%	9.76%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	83	601	70	231	1585	111	111	695	183	151	854	123	4798
PEAK HR FACTOR :		0.809			0.950			0.821			0.962		0.942

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-002 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

PM

NS/EW Streets:	Mason Ave			Mason Ave			Devonshire St			Devonshire St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	3	0	1	3	0	
3:00 PM	49	230	19	52	145	25	34	178	42	28	147	48	997
3:15 PM	30	223	15	46	159	22	38	162	35	25	170	33	958
3:30 PM	45	294	29	35	139	17	30	177	39	29	163	49	1046
3:45 PM	41	275	26	40	169	20	34	176	40	28	166	41	1056
4:00 PM	48	321	31	42	127	36	29	185	42	24	169	45	1099
4:15 PM	41	276	37	32	156	20	37	173	42	24	136	47	1021
4:30 PM	34	321	34	40	149	20	23	194	33	24	171	54	1097
4:45 PM	41	309	31	46	166	20	36	203	27	24	144	53	1100
5:00 PM	32	319	18	38	126	22	36	195	36	24	163	74	1083
5:15 PM	39	338	12	41	152	20	21	200	35	25	183	49	1115
5:30 PM	40	349	30	39	145	29	22	190	44	28	178	67	1161
5:45 PM	43	277	31	31	139	17	31	170	27	25	170	51	1012
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	483	3532	313	482	1772	268	371	2203	442	308	1960	611	12745
APPROACH %'s :	11.16%	81.61%	7.23%	19.11%	70.26%	10.63%	12.30%	73.04%	14.66%	10.70%	68.08%	21.22%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	152	1315	91	164	589	91	115	788	142	101	668	243	4459
PEAK HR FACTOR :		0.930			0.909			0.978			0.927		0.960

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Mason Ave

East/West Lassen St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	101	122	94	62
BIKES	13	11	13	9
BUSES	10	8	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	245	7.30	525	7.30	333	7.45	271	7.45
PM PK 15 MIN	426	17.00	277	15.00	396	16.30	205	15.45
AM PK HOUR	835	7.15	2039	7.15	1078	7.00	1008	7.30
PM PK HOUR	1644	16.45	927	15.00	1382	16.30	752	15.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	94	634	99	827
8-9	62	499	71	632
9-10	48	426	35	509
15-16	98	1032	130	1260
16-17	132	1269	191	1592
17-18	154	1281	179	1614
TOTAL	588	5141	705	6434

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	107	1670	203	1980
8-9	68	1520	154	1742
9-10	52	809	79	940
15-16	74	733	120	927
16-17	82	694	135	911
17-18	72	700	86	858
TOTAL	455	6126	777	7358

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2807	17	4	9	1
2374	11	0	6	0
1449	2	0	1	0
2187	5	6	1	2
2503	7	2	6	2
2472	6	2	2	0
13792	48	14	25	5

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	74	766	238	1078
8-9	59	419	93	571
9-10	67	348	93	508
15-16	144	764	143	1051
16-17	196	958	113	1267
17-18	200	879	147	1226
TOTAL	740	4134	827	5701

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	125	728	86	939
8-9	171	567	77	815
9-10	85	311	60	456
15-16	100	521	131	752
16-17	74	488	107	669
17-18	85	533	122	740
TOTAL	640	3148	583	4371

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2017	8	0	8	1
1386	9	0	6	0
964	2	0	3	0
1803	7	1	1	2
1936	3	1	7	0
1966	8	1	2	0
10072	37	3	27	3

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-003 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

AM

NS/EW Streets:	Mason Ave			Mason Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
7:00 AM	22	139	19	13	376	45	12	127	42	37	140	14	986
7:15 AM	26	167	17	26	446	42	11	176	47	33	183	26	1200
7:30 AM	22	182	41	41	425	59	27	232	71	23	194	18	1335
7:45 AM	24	146	22	27	423	57	24	231	78	32	211	28	1303
8:00 AM	19	142	27	16	445	32	16	128	29	35	166	33	1088
8:15 AM	16	114	13	15	391	48	15	114	25	61	193	14	1019
8:30 AM	11	129	16	13	350	28	13	93	24	39	99	17	832
8:45 AM	16	114	15	24	334	46	15	84	15	36	109	13	821
9:00 AM	10	102	5	12	257	32	16	102	29	32	85	11	693
9:15 AM	11	110	10	14	200	21	17	76	20	19	78	16	592
9:30 AM	20	119	11	14	176	12	20	92	21	17	83	16	601
9:45 AM	7	95	9	12	176	14	14	78	23	17	65	17	527
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	204	1559	205	227	3999	436	200	1533	424	381	1606	223	10997
APPROACH %'s :	10.37%	79.22%	10.42%	4.87%	85.78%	9.35%	9.27%	71.07%	19.66%	17.24%	72.67%	10.09%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	91	637	107	110	1739	190	78	767	225	123	754	105	4926
PEAK HR FACTOR :		0.852			0.971			0.803			0.906		0.922

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-003 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

PM

NS/EW Streets:	Mason Ave			Mason Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
3:00 PM	38	219	34	29	206	42	31	169	41	18	111	29	967
3:15 PM	13	204	32	20	188	15	22	159	32	27	136	30	878
3:30 PM	32	319	35	9	163	23	44	255	37	22	136	38	1113
3:45 PM	15	290	29	16	176	40	47	181	33	33	138	34	1032
4:00 PM	36	327	54	16	158	32	49	226	29	19	104	22	1072
4:15 PM	33	291	46	25	174	26	44	196	26	17	134	35	1047
4:30 PM	38	333	47	20	191	40	57	306	33	19	125	20	1229
4:45 PM	25	318	44	21	171	37	46	230	25	19	125	30	1091
5:00 PM	30	351	45	18	164	27	65	256	42	19	131	26	1174
5:15 PM	44	303	61	17	173	19	50	238	34	20	129	38	1126
5:30 PM	46	331	46	15	194	21	43	201	42	23	133	32	1127
5:45 PM	34	296	27	22	169	19	42	184	29	23	140	26	1011
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	384	3582	500	228	2127	341	540	2601	403	259	1542	360	12867
APPROACH %'s :	8.60%	80.21%	11.20%	8.46%	78.89%	12.65%	15.24%	73.39%	11.37%	11.99%	71.36%	16.66%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	137	1305	197	76	699	123	218	1030	134	77	510	114	4620
PEAK HR FACTOR :		0.962			0.894			0.872			0.937		0.940

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Mason Ave

East/West Plummer St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	129	135	97	81
BIKES	10	13	14	26
BUSES	0	9	7	19

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	297	7.30	497	7.45	126	7.45	232	7.45
PM PK 15 MIN	393	17.30	258	15.00	245	17.00	163	17.00
AM PK HOUR	967	7.15	1940	7.15	395	7.30	823	7.15
PM PK HOUR	1539	16.45	959	15.00	882	16.30	583	15.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	66	747	151	964
8-9	36	517	95	648
9-10	33	396	75	504
15-16	50	919	152	1121
16-17	48	1173	234	1455
17-18	34	1251	240	1525
TOTAL	267	5003	947	6217

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	141	1549	195	1885
8-9	127	1439	195	1761
9-10	102	802	88	992
15-16	106	789	64	959
16-17	96	718	64	878
17-18	92	745	58	895
TOTAL	664	6042	664	7370

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2849	6	0	3	1
2409	3	0	2	0
1496	0	0	0	0
2080	3	0	2	0
2333	7	0	1	0
2420	3	0	2	0
13587	22	0	10	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	27	291	44	362
8-9	38	248	33	319
9-10	33	197	30	260
15-16	102	404	76	582
16-17	171	537	69	777
17-18	148	584	48	780
TOTAL	519	2261	300	3080

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	200	494	61	755
8-9	145	372	58	575
9-10	79	240	62	381
15-16	77	328	151	556
16-17	85	316	151	552
17-18	86	325	152	563
TOTAL	672	2075	635	3382

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1117	7	0	4	0
894	2	1	3	0
641	0	0	2	0
1138	2	0	2	0
1329	6	0	3	0
1343	3	0	1	0
6462	20	1	15	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-004 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

AM

NS/EW Streets:	Mason Ave			Mason Ave			Plummer St			Plummer St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
7:00 AM	16	143	28	32	336	52	7	44	10	38	82	16	804
7:15 AM	14	188	32	25	414	44	7	64	10	44	110	14	966
7:30 AM	20	235	42	36	408	41	9	74	11	63	143	13	1095
7:45 AM	16	181	49	48	391	58	4	109	13	55	159	18	1101
8:00 AM	12	151	27	33	397	45	13	70	10	50	134	20	962
8:15 AM	10	127	30	36	384	56	8	68	6	44	94	12	875
8:30 AM	11	128	18	27	354	51	7	54	6	24	76	13	769
8:45 AM	3	111	20	31	304	43	10	56	11	27	68	13	697
9:00 AM	7	100	23	31	267	26	6	61	6	31	60	15	633
9:15 AM	10	98	16	18	211	20	5	46	9	19	48	12	512
9:30 AM	10	107	16	24	162	23	13	42	8	16	75	18	514
9:45 AM	6	91	20	29	162	19	9	48	7	13	57	17	478
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	135	1660	321	370	3790	478	98	736	107	424	1106	181	9406
APPROACH %'s :	6.38%	78.45%	15.17%	7.98%	81.72%	10.31%	10.41%	78.21%	11.37%	24.78%	64.64%	10.58%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	62	755	150	142	1610	188	33	317	44	212	546	65	4124
PEAK HR FACTOR :		0.814			0.976			0.782			0.887		0.936

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-004 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

PM

NS/EW Streets:	Mason Ave			Mason Ave			Plummer St			Plummer St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
3:00 PM	12	225	24	25	215	18	20	78	11	15	73	29	745
3:15 PM	14	192	39	23	198	18	15	79	13	21	89	30	731
3:30 PM	13	262	38	25	184	12	32	156	33	22	86	51	914
3:45 PM	11	240	51	33	192	16	35	91	19	19	80	41	828
4:00 PM	15	299	50	20	176	13	47	135	20	24	76	44	919
4:15 PM	8	281	55	19	171	14	38	105	12	17	75	26	821
4:30 PM	13	304	56	25	190	19	48	159	28	19	84	49	994
4:45 PM	12	289	73	32	181	18	38	138	9	25	81	32	928
5:00 PM	9	318	59	24	182	13	46	182	17	24	91	48	1013
5:15 PM	7	313	66	26	174	14	42	165	10	20	73	36	946
5:30 PM	7	315	71	25	207	19	40	124	10	27	79	37	961
5:45 PM	11	305	44	17	182	12	20	113	11	15	82	31	843
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	132	3343	626	294	2252	186	421	1525	193	248	969	454	10643
APPROACH %'s :	3.22%	81.52%	15.26%	10.76%	82.43%	6.81%	19.68%	71.29%	9.02%	14.84%	57.99%	27.17%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	41	1224	254	107	727	64	174	644	64	88	329	165	3881
PEAK HR FACTOR :		0.984			0.959			0.900			0.893		0.958

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Mason Ave

East/West Nordhoff St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	77	108	133	128
BIKES	9	18	15	13
BUSES	0	0	28	30

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	326	7.30	425	7.30	190	8.00	317	7.45
PM PK 15 MIN	301	17.15	315	16.30	425	17.15	222	17.15
AM PK HOUR	1174	7.15	1621	7.15	675	7.15	1135	7.15
PM PK HOUR	1090	16.45	1109	16.30	1538	16.30	809	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	82	936	125	1143
8-9	88	664	143	895
9-10	57	457	111	625
15-16	65	738	111	914
16-17	58	862	96	1016
17-18	61	932	97	1090
TOTAL	411	4589	683	5683

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	41	1274	219	1534
8-9	37	1191	209	1437
9-10	47	695	103	845
15-16	82	824	73	979
16-17	81	843	93	1017
17-18	84	918	67	1069
TOTAL	372	5745	764	6881

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2677	5	0	13	0
2332	1	0	6	0
1470	7	0	5	0
1893	6	0	3	0
2033	6	0	5	0
2159	10	0	4	0
12564	35	0	36	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	83	445	48	576
8-9	72	518	65	655
9-10	53	402	37	492
15-16	219	709	148	1076
16-17	238	891	200	1329
17-18	276	1029	201	1506
TOTAL	941	3994	699	5634

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	193	824	56	1073
8-9	155	718	40	913
9-10	92	406	39	537
15-16	153	498	61	712
16-17	154	510	60	724
17-18	184	565	59	808
TOTAL	931	3521	315	4767

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1649	6	0	1	0
1568	10	0	11	0
1029	2	0	6	0
1788	15	0	2	0
2053	11	0	4	0
2314	10	0	1	0
10401	54	0	25	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-005 **Day:** Wednesday

TOTALS

City: Chatsworth **Date:** 9/21/2016

AM

NS/EW Streets:	Mason Ave			Mason Ave			Nordhoff St			Nordhoff St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	3	0	1	3	0	
7:00 AM	13	188	29	9	249	45	13	69	9	47	159	9	839
7:15 AM	15	249	25	8	346	45	17	110	15	55	192	17	1094
7:30 AM	22	272	32	11	357	57	24	132	12	52	211	14	1196
7:45 AM	32	227	39	13	322	72	29	134	12	39	262	16	1197
8:00 AM	28	200	33	11	309	70	28	143	19	37	228	12	1118
8:15 AM	17	173	41	5	332	51	11	107	19	37	201	10	1004
8:30 AM	22	161	35	11	276	45	13	118	9	44	159	6	899
8:45 AM	21	130	34	10	274	43	20	150	18	37	130	12	879
9:00 AM	11	119	35	22	220	39	11	112	11	28	127	10	745
9:15 AM	12	120	30	9	191	28	11	98	7	19	91	14	630
9:30 AM	20	113	24	9	150	17	19	106	12	26	105	11	612
9:45 AM	14	105	22	7	134	19	12	86	7	19	83	4	512
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	227	2057	379	125	3160	531	208	1365	150	440	1948	135	10725
APPROACH %'s :	8.52%	77.24%	14.23%	3.28%	82.81%	13.92%	12.07%	79.22%	8.71%	17.44%	77.21%	5.35%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	97	948	129	43	1334	244	98	519	58	183	893	59	4605
PEAK HR FACTOR :		0.900			0.954			0.888			0.895		0.962

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-005

Day: Wednesday

TOTALS

City: Chatsworth

Date: 9/21/2016

PM

NS/EW Streets:	Mason Ave			Mason Ave			Nordhoff St			Nordhoff St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	3	0	1	3	0	
3:00 PM	17	169	24	24	188	21	48	161	32	34	118	11	847
3:15 PM	17	190	26	19	202	22	53	167	30	34	123	13	896
3:30 PM	15	167	21	18	217	17	65	184	50	45	136	17	952
3:45 PM	16	212	40	21	217	13	53	197	36	40	121	20	986
4:00 PM	15	184	23	23	221	19	61	216	45	36	126	16	985
4:15 PM	17	249	22	12	166	26	60	182	44	41	125	15	959
4:30 PM	10	183	28	25	258	32	50	253	63	37	126	15	1080
4:45 PM	16	246	23	21	198	16	67	240	48	40	133	14	1062
5:00 PM	14	201	27	20	257	16	63	277	52	47	156	17	1147
5:15 PM	16	257	28	19	231	16	89	274	62	52	159	11	1214
5:30 PM	14	229	19	23	231	18	58	236	41	45	118	17	1049
5:45 PM	17	245	23	22	199	17	66	242	46	40	132	14	1063
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	184	2532	304	247	2585	233	733	2629	549	491	1573	180	12240
APPROACH %'s :	6.09%	83.84%	10.07%	8.06%	84.34%	7.60%	18.74%	67.22%	14.04%	21.88%	70.10%	8.02%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	56	887	106	85	944	80	269	1044	225	176	574	57	4503
PEAK HR FACTOR :		0.871			0.880			0.905			0.909		0.927

CONTROL : Signalized

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Winnetka Ave

East/West Lassen St

Day: Wednesday Date: September 21, 2016 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	82	61	78	56
BIKES	9	5	3	9
BUSES	0	0	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	204	7.15	292	7.30	278	7.30	304	8.15
PM PK 15 MIN	394	17.00	137	15.15	290	17.30	209	15.15
AM PK HOUR	693	7.15	1042	7.15	953	7.15	1022	7.30
PM PK HOUR	1324	16.30	508	17.00	1091	16.45	758	15.15

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	141	419	109	669
8-9	61	313	75	449
9-10	48	271	56	375
15-16	108	573	194	875
16-17	131	692	354	1177
17-18	148	662	457	1267
TOTAL	637	2930	1245	4812

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	47	957	16	1020
8-9	22	782	6	810
9-10	17	508	12	537
15-16	23	473	9	505
16-17	30	421	11	462
17-18	45	440	23	508
TOTAL	184	3581	77	3842

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
1689	3	0	5	0
1259	1	0	1	0
912	2	0	0	0
1380	0	0	0	0
1639	2	0	0	1
1775	0	0	0	0
8654	8	0	6	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	26	714	205	945
8-9	18	433	125	576
9-10	11	328	91	430
15-16	32	803	114	949
16-17	54	918	113	1085
17-18	54	870	116	1040
TOTAL	195	4066	764	5025

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	178	728	25	931
8-9	238	688	20	946
9-10	104	354	22	480
15-16	108	603	32	743
16-17	77	524	20	621
17-18	88	551	28	667
TOTAL	793	3448	147	4388

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1876	0	0	2	0
1522	2	0	0	0
910	0	0	2	0
1692	2	0	1	0
1706	0	0	1	0
1707	1	0	0	0
9413	5	0	6	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-006

Day: Wednesday

TOTALS

City: Chatsworth

Date: 9/21/2016

AM

NS/EW Streets:	Winnetka Ave			Winnetka Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	1	2	0	1	2	0	
7:00 AM	21	76	19	7	195	3	3	138	33	54	158	5	712
7:15 AM	43	135	26	11	239	3	10	164	52	46	198	7	934
7:30 AM	50	112	25	22	264	6	4	214	60	29	172	7	965
7:45 AM	27	96	39	7	259	4	9	198	60	49	200	6	954
8:00 AM	23	89	28	9	218	0	9	140	33	55	195	5	804
8:15 AM	14	80	19	1	211	2	4	108	35	77	224	3	778
8:30 AM	13	67	13	7	187	4	2	92	24	65	126	5	605
8:45 AM	11	77	15	5	166	0	3	93	33	41	143	7	594
9:00 AM	10	67	22	7	159	5	4	95	23	31	103	5	531
9:15 AM	13	60	8	2	121	1	1	81	14	26	91	3	421
9:30 AM	11	70	14	7	106	3	4	82	33	25	91	6	452
9:45 AM	14	74	12	1	122	3	2	70	21	22	69	8	418
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	250	1003	240	86	2247	34	55	1475	421	520	1770	67	8168
APPROACH %'s :	16.74%	67.18%	16.08%	3.63%	94.93%	1.44%	2.82%	75.60%	21.58%	22.06%	75.10%	2.84%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	143	432	118	49	980	13	32	716	205	179	765	25	3657
PEAK HR FACTOR :		0.849			0.892			0.857			0.950		0.947

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5625-006

Day: Wednesday

TOTALS

City: Chatsworth

Date: 9/21/2016

PM

NS/EW Streets:	Winnetka Ave			Winnetka Ave			Lassen St			Lassen St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	3	0	1	3	0	1	2	0	1	2	0	
3:00 PM	28	131	33	8	122	3	5	196	42	22	114	5	709
3:15 PM	24	133	35	6	128	3	10	165	26	31	171	7	739
3:30 PM	27	181	71	4	109	1	8	246	22	26	169	12	876
3:45 PM	29	128	55	5	114	2	9	196	24	29	149	8	748
4:00 PM	22	187	71	7	104	3	9	252	22	21	130	5	833
4:15 PM	35	168	65	4	90	4	11	211	27	16	135	4	770
4:30 PM	34	182	117	11	112	2	16	241	26	21	128	6	896
4:45 PM	40	155	101	8	115	2	18	214	38	19	131	5	846
5:00 PM	35	208	151	8	111	6	13	215	25	20	109	9	910
5:15 PM	31	165	105	16	106	6	19	236	23	20	157	8	892
5:30 PM	36	144	118	11	107	4	15	234	41	19	154	7	890
5:45 PM	46	145	83	10	116	7	7	185	27	29	131	4	790
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	387	1927	1005	98	1334	43	140	2591	343	273	1678	80	9899
APPROACH %'s :	11.66%	58.06%	30.28%	6.64%	90.44%	2.92%	4.55%	84.29%	11.16%	13.44%	82.62%	3.94%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	140	710	474	43	444	16	66	906	112	80	525	28	3544
PEAK HR FACTOR :		0.840			0.982			0.958			0.855		0.974

CONTROL : Signalized

APPENDIX B

CMA AND LEVELS OF SERVICE EXPLANATION
CMA DATA WORKSHEETS – WEEKDAY AM AND PM PEAK HOURS

CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Critical Movement Analysis Characteristics

Level of Service	Load Factor	Equivalent CMA
A (free flow)	0.0	0.00 - 0.60
B (rural design)	0.0 - 0.1	0.61 - 0.70
C (urban design)	0.1 - 0.3	0.71 - 0.80
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90
E (capacity)	0.7 - 1.0	0.91 - 1.00
F (force flow)	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (CMA = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	De Soto Ave	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA01	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	194	1	**194**	0	194	**194**	0	202	1	**202**	0	202	1	**202**	0	202	1	**202**
	Left-Through		0							0				0				0	
	Through	1107	2	411	0	1107	414	8	1160	2	430	0	1160	2	433	0	1160	2	433
	Through-Right		1							1				1				1	
	Right	125	0	125	9	134	134	1	131	0	131	9	140	0	140	0	140	0	140
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	100	1	100	9	109	109	25	129	1	129	9	138	1	138	0	138	1	138
	Left-Through		0							0				0				0	
	Through	1609	2	**603**	0	1609	**603**	13	1687	2	**632**	0	1687	2	**632**	0	1687	2	**632**
	Through-Right		1							1				1				1	
	Right	199	0	199	0	199	199	2	209	0	209	0	209	0	209	0	209	0	209
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	79	1	79	0	79	79	2	84	1	84	0	84	1	84	0	84	1	84
	Left-Through		0							0				0				0	
	Through	702	1	**424**	27	729	**438**	19	749	1	**451**	27	776	1	**464**	0	776	1	**464**
	Through-Right		1							1				1				1	
	Right	146	0	146	0	146	146	0	152	0	152	0	152	0	152	0	152	0	152
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	106	1	**106**	8	114	**114**	1	111	1	**111**	8	119	1	**119**	0	119	1	**119**
	Left-Through		0							0				0				0	
	Through	702	1	391	25	727	407	12	742	1	421	25	767	1	438	0	767	1	438
	Through-Right		1							1				1				1	
	Right	79	0	79	8	87	87	18	100	0	100	8	108	0	108	0	108	0	108
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		797	*North-South:*		797	*North-South:*			834	*North-South:*			834	*North-South:*			834
		East-West:		530	*East-West:*		552	*East-West:*			562	*East-West:*			583	*East-West:*			583
		SUM:		1327	*SUM:*		1349	*SUM:*			1396	*SUM:*			1417	*SUM:*			1417
VOLUME/CAPACITY *(V/C)* RATIO:				0.931			0.947				0.980				0.994				0.994
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.831**			**0.847**				**0.880**				**0.894**				**0.894**
LEVEL OF SERVICE (LOS):				**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.014	Δ*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	De Soto Ave	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA01	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			3			3			3			3			3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	178	1	178	0	178	178	0	185	1	185	0	185	1	185	0	185	1	185
Left-Through		0							0				0				0	
Through	1658	2	**640**	0	1658	**643**	25	1750	2	**675**	0	1750	2	**677**	0	1750	2	**677**
Through-Right		1							1				1				1	
Right	263	0	263	7	270	270	1	275	0	275	7	282	0	282	0	282	0	282
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	79	1	**79**	7	86	**86**	23	105	1	**105**	7	112	1	**112**	0	112	1	**112**
Left-Through		0							0				0				0	
Through	1082	2	403	0	1082	403	11	1137	2	424	0	1137	2	424	0	1137	2	424
Through-Right		1							1				1				1	
Right	128	0	128	0	128	128	2	135	0	135	0	135	0	135	0	135	0	135
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	151	1	151	0	151	151	5	162	1	162	0	162	1	162	0	162	1	162
Left-Through		0							0				0				0	
Through	871	1	**492**	21	892	**502**	17	923	1	**520**	21	944	1	**531**	0	944	1	**531**
Through-Right		1							1				1				1	
Right	112	0	112	0	112	112	0	117	0	117	0	117	0	117	0	117	0	117
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	86	1	**86**	6	92	**92**	1	90	1	**90**	6	96	1	**96**	0	96	1	**96**
Left-Through		0							0				0				0	
Through	568	1	330	17	585	341	21	612	1	371	17	629	1	382	0	629	1	382
Through-Right		1							1				1				1	
Right	91	0	91	6	97	97	34	129	0	129	6	135	0	135	0	135	0	135
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		719	*North-South:*		729	*North-South:*			780	*North-South:*			789	*North-South:*			789
	East-West:		578	*East-West:*		594	*East-West:*			610	*East-West:*			627	*East-West:*			627
	SUM:		1297	*SUM:*		1323	*SUM:*			1390	*SUM:*			1416	*SUM:*			1416
VOLUME/CAPACITY *(V/C)* RATIO:			0.910			0.928				0.975				0.994				0.994
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.810			0.828				0.875				0.894				0.894
LEVEL OF SERVICE (LOS):			D			D				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.019 — Δ*v/c* after mitigation: 0.019

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA02	East-West Street:	Devonshire Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	83	1	**83**	8	91	**91**	1	87	1	**87**	8	95	1	**95**	0	95	1	**95**
	Left-Through		0							0				0				0	
	Through	601	1	336	8	609	344	24	649	1	362	8	657	1	370	0	657	1	370
	Through-Right		1							1				1				1	
	Right	70	0	70	8	78	78	1	74	0	74	8	82	0	82	0	82	0	82
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	231	1	231	0	231	231	0	240	1	240	0	240	1	240	0	240	1	240
	Left-Through		0							0				0				0	
	Through	1585	2	**793**	9	1594	**797**	26	1675	2	**838**	9	1684	2	**842**	0	1684	2	**842**
	Through-Right		0							0				0				0	
	Right	111	1	56	0	111	56	0	115	1	58	0	115	1	58	0	115	1	58
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	111	1	**111**	0	111	**111**	0	115	1	**115**	0	115	1	**115**	0	115	1	**115**
	Left-Through		0							0				0				0	
	Through	695	2	348	0	695	348	34	757	2	379	0	757	2	379	0	757	2	379
	Through-Right		0							0				0				0	
	Right	183	1	142	9	192	147	1	191	1	148	9	200	1	153	0	200	1	153
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	151	1	151	9	160	160	1	158	1	158	9	167	1	167	0	167	1	167
	Left-Through		0							0				0				0	
	Through	854	2	**427**	0	854	**427**	22	911	2	**456**	0	911	2	**456**	0	911	2	**456**
	Through-Right		0							0				0				0	
	Right	123	1	8	0	123	8	0	128	1	8	0	128	1	8	0	128	1	8
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		876	North-South:		888	North-South:			925	North-South:			937	North-South:			937
		East-West:		538	East-West:		538	East-West:			571	East-West:			571	East-West:			571
		SUM:		1414	SUM:		1426	SUM:			1496	SUM:			1508	SUM:			1508
VOLUME/CAPACITY (*V/C*) RATIO:				0.992			1.001				1.050				1.058				1.058
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.892**			**0.901**				**0.950**				**0.958**				**0.958**
LEVEL OF SERVICE (LOS):				D			E				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.008 — Δ*v/c* after mitigation: 0.008

Significant impacted? NO — Fully mitigated? N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA02	East-West Street:	Devonshire Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	152	1	152	6	158	158	1	159	1	159	6	165	1	165	0	165	1	165
	Left-Through		0							0				0				0	
	Through	1315	1	**703**	6	1321	**709**	36	1404	1	**750**	6	1410	1	**756**	0	1410	1	**756**
	Through-Right		1							1				1				1	
	Right	91	0	91	6	97	97	1	96	0	96	6	102	0	102	0	102	0	102
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	164	1	**164**	0	164	**164**	0	171	1	**171**	0	171	1	**171**	0	171	1	**171**
	Left-Through		0							0				0				0	
	Through	589	2	295	7	596	298	29	642	2	321	7	649	2	325	0	649	2	325
	Through-Right		0							0				0				0	
	Right	91	1	34	0	91	34	0	95	1	35	0	95	1	35	0	95	1	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	115	1	115	0	115	115	0	120	1	120	0	120	1	120	0	120	1	120
	Left-Through		0							0				0				0	
	Through	788	2	**394**	0	788	**394**	28	848	2	**424**	0	848	2	**424**	0	848	2	**424**
	Through-Right		0							0				0				0	
	Right	142	1	66	7	149	70	1	149	1	70	7	156	1	74	0	156	1	74
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	101	1	**101**	7	108	**108**	1	106	1	**106**	7	113	1	**113**	0	113	1	**113**
	Left-Through		0							0				0				0	
	Through	668	2	334	0	668	334	47	742	2	371	0	742	2	371	0	742	2	371
	Through-Right		0							0				0				0	
	Right	243	1	161	0	243	161	0	253	1	168	0	253	1	168	0	253	1	168
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		867	*North-South:*		873	*North-South:*			921	*North-South:*			927	*North-South:*			927
		East-West:		495	*East-West:*		502	*East-West:*			530	*East-West:*			537	*East-West:*			537
		SUM:		1362	*SUM:*		1375	*SUM:*			1451	*SUM:*			1464	*SUM:*			1464
	VOLUME/CAPACITY *(V/C)* RATIO:			0.956			0.965				1.018				1.027				1.027
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.856**			**0.865**				**0.918**				**0.927**				**0.927**
	LEVEL OF SERVICE (LOS):			D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.009 — Δ*v/c* after mitigation: 0.009

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA03	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	91	1	**91**	0	91	**91**	2	97	1	**97**	0	97	1	**97**	0	97	1	**97**
	Left-Through		0							0				0				0	
	Through	637	1	372	27	664	399	23	686	1	399	27	713	1	426	0	713	1	426
	Through-Right		1							1				1				1	
	Right	107	0	107	27	134	134	0	111	0	111	27	138	0	138	0	138	0	138
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	110	1	110	0	110	110	2	116	1	116	0	116	1	116	0	116	1	116
	Left-Through		0							0				0				0	
	Through	1739	1	**965**	44	1783	**987**	26	1835	1	**1019**	44	1879	1	**1041**	0	1879	1	**1041**
	Through-Right		1							1				1				1	
	Right	190	0	190	0	190	190	5	203	0	203	0	203	0	203	0	203	0	203
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	78	1	78	14	92	92	6	87	1	87	14	101	1	101	0	101	1	101
	Left-Through		0							0				0				0	
	Through	767	1	**496**	41	808	**517**	37	835	1	**536**	41	876	1	**556**	0	876	2	**438**
	Through-Right		1							1				1				0	
	Right	225	0	225	0	225	225	2	236	0	236	0	236	0	236	0	236	1	188
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	123	1	**123**	29	152	**152**	0	128	1	**128**	29	157	1	**157**	0	157	1	**157**
	Left-Through		0							0				0				0	
	Through	754	2	377	44	798	399	22	806	2	403	44	850	2	425	0	850	2	425
	Through-Right		0							0				0				0	
	Right	105	1	50	0	105	50	2	111	1	53	0	111	1	53	0	111	1	53
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		1056	*North-South:*		1078	*North-South:*			1116	*North-South:*			1138	*North-South:*			1138
		East-West:		619	*East-West:*		669	*East-West:*			664	*East-West:*			713	*East-West:*			595
		SUM:		1675	*SUM:*		1747	*SUM:*			1780	*SUM:*			1851	*SUM:*			1733
VOLUME/CAPACITY (*V/C*) RATIO:				1.117			1.165				1.187				1.234				1.155
V/C LESS ATSAC/ATCS ADJUSTMENT:				1.017			1.065				1.087				1.134				1.055
LEVEL OF SERVICE (LOS):				F			F				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.047	Δ*v/c* after mitigation:	-0.032
Significant impacted?	YES	Fully mitigated?	YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA03	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	137	1	137	0	137	137	2	145	1	145	0	145	1	145	0	145	1	145
	Left-Through		0							0				0				0	
	Through	1305	1	**751**	17	1322	**768**	40	1398	1	**802**	17	1415	1	**819**	0	1415	1	**819**
	Through-Right		1							1				1				1	
	Right	197	0	197	17	214	214	0	205	0	205	17	222	0	222	0	222	0	222
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	76	1	**76**	0	76	**76**	4	83	1	**83**	0	83	1	**83**	0	83	1	**83**
	Left-Through		0							0				0				0	
	Through	699	1	411	30	729	426	29	756	1	447	30	786	1	462	0	786	1	462
	Through-Right		1							1				1				1	
	Right	123	0	123	0	123	123	9	137	0	137	0	137	0	137	0	137	0	137
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	218	1	218	8	226	226	10	237	1	237	8	245	1	245	0	245	1	245
	Left-Through		0							0				0				0	
	Through	1030	1	**582**	25	1055	**595**	29	1101	1	**621**	25	1126	1	**634**	0	1126	2	**563**
	Through-Right		1							1				1				0	
	Right	134	0	134	0	134	134	2	141	0	141	0	141	0	141	0	141	1	69
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	77	1	**77**	20	97	**97**	0	80	1	**80**	20	100	1	**100**	0	100	1	**100**
	Left-Through		0							0				0				0	
	Through	510	2	255	30	540	270	45	576	2	288	30	606	2	303	0	606	2	303
	Through-Right		0							0				0				0	
	Right	114	1	76	0	114	76	6	125	1	84	0	125	1	84	0	125	1	84
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		827	North-South:		844	North-South:			885	North-South:			902	North-South:			902
		East-West:		659	East-West:		692	East-West:			701	East-West:			734	East-West:			663
		SUM:		1486	SUM:		1536	SUM:			1586	SUM:			1636	SUM:			1565
	VOLUME/CAPACITY (V/C) RATIO:			0.991			1.024				1.057				1.091				1.043
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.891**			**0.924**				**0.957**				**0.991**				**0.943**
	LEVEL OF SERVICE (LOS):			**D**			**E**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.034 — Δ*v/c* after mitigation: -0.014

Significant impacted? YES — Fully mitigated? YES

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA04	East-West Street:	Plummer Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	62	1	**62**	0	62	**62**	0	65	1	**65**	0	65	1	**65**	0	65	1	**65**
Left-Through		0							0				0				0	
Through	755	1	453	27	782	466	24	810	1	483	27	837	1	497	0	837	1	497
Through-Right		1							1				1				1	
Right	150	0	150	0	150	150	0	156	0	156	0	156	0	156	0	156	0	156
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	142	1	142	17	159	159	1	149	1	149	17	166	1	166	0	166	1	166
Left-Through		0							0				0				0	
Through	1610	1	**899**	25	1635	**920**	27	1702	1	**950**	25	1727	1	**971**	0	1727	1	**971**
Through-Right		1							1				1				1	
Right	188	0	188	17	205	205	1	197	0	197	17	214	0	214	0	214	0	214
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	33	1	33	18	51	51	1	35	1	35	18	53	1	53	0	53	1	53
Left-Through		0							0				0				0	
Through	317	2	**159**	0	317	**159**	28	358	2	**179**	0	358	2	**179**	0	358	2	**179**
Through-Right		0							0				0				0	
Right	44	1	13	0	44	13	0	46	1	14	0	46	1	14	0	46	1	14
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	212	1	**212**	0	212	**212**	0	221	1	**221**	0	221	1	**221**	0	221	1	**221**
Left-Through		0							0				0				0	
Through	546	2	273	0	546	273	19	587	2	294	0	587	2	294	0	587	2	294
Through-Right		0							0				0				0	
Right	65	1	0	18	83	4	1	69	1	0	18	87	1	4	0	87	1	4
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		961	*North-South:*		982	*North-South:*			1015	*North-South:*			1036	*North-South:*			1036
	East-West:		371	*East-West:*		371	*East-West:*			400	*East-West:*			400	*East-West:*			400
	SUM:		1332	*SUM:*		1353	*SUM:*			1415	*SUM:*			1436	*SUM:*			1436
VOLUME/CAPACITY *(V/C)* RATIO:			0.888			0.902				0.943				0.957				0.957
V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.788**			**0.802**				**0.843**				**0.857**				**0.857**
LEVEL OF SERVICE (LOS):			**C**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.014	Δ*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA04	East-West Street:	Plummer Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	41	1	41	0	41	41	0	43	1	43	0	43	1	43	0	43	1	43
Left-Through		0							0				0				0	
Through	1224	1	**739**	21	1245	**750**	38	1311	1	**788**	21	1332	1	**798**	0	1332	1	**798**
Through-Right		1							1				1				1	
Right	254	0	254	0	254	254	0	264	0	264	0	264	0	264	0	264	0	264
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	107	1	**107**	12	119	**119**	2	113	1	**113**	12	125	1	**125**	0	125	1	**125**
Left-Through		0							0				0				0	
Through	727	1	396	17	744	410	28	784	1	426	17	801	1	441	0	801	1	441
Through-Right		1							1				1				1	
Right	64	0	64	12	76	76	1	68	0	68	12	80	0	80	0	80	0	80
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	174	1	174	14	188	188	1	182	1	182	14	196	1	196	0	196	1	196
Left-Through		0							0				0				0	
Through	644	2	**322**	0	644	**322**	22	692	2	**346**	0	692	2	**346**	0	692	2	**346**
Through-Right		0							0				0				0	
Right	64	1	44	0	64	44	0	67	1	46	0	67	1	46	0	67	1	46
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	88	1	**88**	0	88	**88**	0	92	1	**92**	0	92	1	**92**	0	92	1	**92**
Left-Through		0							0				0				0	
Through	329	2	165	0	329	165	33	375	2	188	0	375	2	188	0	375	2	188
Through-Right		0							0				0				0	
Right	165	1	112	14	179	120	3	175	1	119	14	189	1	127	0	189	1	127
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	North-South:		846	North-South:		869	North-South:			901	North-South:			923	North-South:			923
	East-West:		410	East-West:		410	East-West:			438	East-West:			438	East-West:			438
	SUM:		1256	SUM:		1279	SUM:			1339	SUM:			1361	SUM:			1361
VOLUME/CAPACITY (V/C) RATIO:			0.837			0.853				0.893				0.907				0.907
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.737			0.753				0.793				0.807				0.807
LEVEL OF SERVICE (LOS):			C			C				C				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project: 0.014 — Δ*v/c* after mitigation: 0.014

Significant impacted? NO — Fully mitigated? N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA05	East-West Street:	Nordhoff Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3					3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	97	1	**97**	0	97	**97**	0	101	1	**101**	0	101	1	**101**	0	101	1	**101**
	Left-Through		0							0				0				0	
	Through	948	2	474	18	966	483	6	992	2	496	18	1010	2	505	0	1010	2	505
	Through-Right		0							0				0				0	
	Right	129	1	38	0	129	38	25	159	1	57	0	159	1	57	0	159	1	57
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	43	1	43	8	51	51	1	46	1	46	8	54	1	54	0	54	1	54
	Left-Through		0							0				0				0	
	Through	1334	1	**789**	17	1351	**798**	4	1392	1	**823**	17	1409	1	**832**	0	1409	1	**832**
	Through-Right		1							1				1				1	
	Right	244	0	244	0	244	244	0	254	0	254	0	254	0	254	0	254	0	254
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	98	1	**98**	0	98	**98**	0	102	1	**102**	0	102	1	**102**	0	102	1	**102**
	Left-Through		0							0				0				0	
	Through	519	2	260	0	519	260	13	553	2	277	0	553	2	277	0	553	2	277
	Through-Right		0							0				0				0	
	Right	58	1	10	0	58	10	3	63	1	13	0	63	1	13	0	63	1	13
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	183	1	183	0	183	183	15	205	1	205	0	205	1	205	0	205	1	205
	Left-Through		0							0				0				0	
	Through	893	1	**476**	0	893	**481**	8	937	1	**500**	0	937	1	**504**	0	937	1	**504**
	Through-Right		1							1				1				1	
	Right	59	0	59	9	68	68	1	62	0	62	9	71	0	71	0	71	0	71
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		886	*North-South:*		895	*North-South:*			924	*North-South:*			933	*North-South:*			933
		East-West:		574	*East-West:*		579	*East-West:*			602	*East-West:*			606	*East-West:*			606
		SUM:		1460	*SUM:*		1474	*SUM:*			1526	*SUM:*			1539	*SUM:*			1539
	VOLUME/CAPACITY *(V/C)* RATIO:			1.025			1.034				1.071				1.080				1.080
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.925**			**0.934**				**0.971**				**0.980**				**0.980**
	LEVEL OF SERVICE (LOS):			**E**			**E**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	Δ*v/c* after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mason Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA05	East-West Street:	Nordhoff Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3					3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0					0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	56	1	**56**	0	56	**56**	3	61	1	**61**	0	61	1	**61**	0	61	1	**61**
	Left-Through		0							0				0				0	
	Through	887	2	444	14	901	451	13	936	2	468	14	950	2	475	0	950	2	475
	Through-Right		0							0				0				0	
	Right	106	1	18	0	106	18	21	131	1	29	0	131	1	29	0	131	1	29
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	85	1	85	6	91	91	1	89	1	89	6	95	1	95	0	95	1	95
	Left-Through		0							0				0				0	
	Through	944	1	**512**	12	956	**518**	8	990	1	**537**	12	1002	1	**543**	0	1002	1	**543**
	Through-Right		1							1				1				1	
	Right	80	0	80	0	80	80	0	83	0	83	0	83	0	83	0	83	0	83
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	269	1	269	0	269	269	0	280	1	280	0	280	1	280	0	280	1	280
	Left-Through		0							0				0				0	
	Through	1044	2	**423**	0	1044	**423**	12	1098	2	**445**	0	1098	2	**445**	0	1098	2	**445**
	Through-Right		1							1				1				1	
	Right	225	0	225	0	225	225	2	236	0	236	0	236	0	236	0	236	0	236
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	176	1	**176**	0	176	**176**	21	204	1	**204**	0	204	1	**204**	0	204	1	**204**
	Left-Through		0							0				0				0	
	Through	574	2	210	0	574	213	11	608	2	223	0	608	2	225	0	608	2	225
	Through-Right		1							1				1				1	
	Right	57	0	57	7	64	64	1	60	0	60	7	67	0	67	0	67	0	67
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		568	*North-South:*		574	*North-South:*		598		*North-South:*		604		*North-South:*		604	
		East-West:		599	*East-West:*		599	*East-West:*		649		*East-West:*		649		*East-West:*		649	
		SUM:		1167	*SUM:*		1173	*SUM:*		1247		*SUM:*		1253		*SUM:*		1253	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.819			0.823			0.875				0.879					0.879
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.719**			**0.723**			**0.775**				**0.779**					**0.779**
	LEVEL OF SERVICE (LOS):			**C**			**C**			**C**				**C**					**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Winnetka Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA06	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	143	1	**143**	9	152	**152**	17	166	1	**166**	9	175	1	**175**	0	175	1	**175**
	Left-Through		0							0				0				0	
	Through	432	2	216	0	432	216	52	501	2	251	0	501	2	251	0	501	2	251
	Through-Right		0							0				0				0	
	Right	118	1	29	0	118	29	17	140	1	36	0	140	1	36	0	140	1	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	49	1	49	0	49	49	0	51	1	51	0	51	1	51	0	51	1	51
	Left-Through		0							0				0				0	
	Through	980	2	**490**	0	980	**490**	66	1086	2	**543**	0	1086	2	**543**	0	1086	2	**543**
	Through-Right		0							0				0				0	
	Right	13	1	0	9	22	2	1	15	1	0	9	24	1	3	0	24	1	3
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	32	1	32	8	40	40	1	34	1	34	8	42	1	42	0	42	1	42
	Left-Through		0							0				0				0	
	Through	716	2	**358**	25	741	**371**	17	762	2	**381**	25	787	2	**394**	0	787	2	**394**
	Through-Right		0							0				0				0	
	Right	205	1	134	8	213	137	22	235	1	152	8	243	1	156	0	243	1	156
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	179	1	**179**	0	179	**179**	22	208	1	**208**	0	208	1	**208**	0	208	1	**208**
	Left-Through		0							0				0				0	
	Through	765	1	395	27	792	409	7	803	1	415	27	830	1	428	0	830	1	428
	Through-Right		1							1				1				1	
	Right	25	0	25	0	25	25	0	26	0	26	0	26	0	26	0	26	0	26
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		633	*North-South:*		642	*North-South:*			709	*North-South:*			718	*North-South:*			718
		East-West:		537	*East-West:*		550	*East-West:*			589	*East-West:*			602	*East-West:*			602
		SUM:		1170	*SUM:*		1192	*SUM:*			1298	*SUM:*			1320	*SUM:*			1320
	VOLUME/CAPACITY *(V/C)* RATIO:			0.780			0.795				0.865				0.880				0.880
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.680**			**0.695**				**0.765**				**0.780**				**0.780**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Winnetka Avenue	Year of Count:	2016	Ambient Growth: (%):	2.0	Conducted by:	NDS	Date:	10/18/2016
CMA06	East-West Street:	Lassen Street	Projection Year:	2018	Peak Hour:	PM	Reviewed by:	MB/TN	Project:	5-16-0282-1 9825 Mason Ave Mix

No. of Phases			2			2			2			2			2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB--	0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2				2
Override Capacity			0			0			0			0			0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	140	1	140	7	147	147	24	170	1	170	7	177	1	177	0	177	1	177
	Left-Through		0							0				0				0	
	Through	710	2	355	0	710	355	76	815	2	408	0	815	2	408	0	815	2	408
	Through-Right		0							0				0				0	
	Right	474	1	**434**	0	474	**434**	24	517	1	**466**	0	517	1	**466**	0	517	1	**466**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	43	1	**43**	0	43	**43**	0	45	1	**45**	0	45	1	**45**	0	45	1	**45**
	Left-Through		0							0				0				0	
	Through	444	2	222	0	444	222	56	518	2	259	0	518	2	259	0	518	2	259
	Through-Right		0							0				0				0	
	Right	16	1	0	7	23	0	1	18	1	0	7	25	1	0	0	25	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	66	1	66	6	72	72	1	70	1	70	6	76	1	76	0	76	1	76
	Left-Through		0							0				0				0	
	Through	906	2	**453**	17	923	**462**	13	956	2	**478**	17	973	2	**487**	0	973	2	**487**
	Through-Right		0							0				0				0	
	Right	112	1	42	6	118	45	19	136	1	51	6	142	1	54	0	142	1	54
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	80	1	**80**	0	80	**80**	19	102	1	**102**	0	102	1	**102**	0	102	1	**102**
	Left-Through		0							0				0				0	
	Through	525	1	277	21	546	287	25	571	1	300	21	592	1	311	0	592	1	311
	Through-Right		1							1				1				1	
	Right	28	0	28	0	28	28	0	29	0	29	0	29	0	29	0	29	0	29
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		477	North-South:		477	North-South:			511	North-South:			511	North-South:			511
		East-West:		533	East-West:		542	East-West:			580	East-West:			589	East-West:			589
		SUM:		1010	SUM:		1019	SUM:			1091	SUM:			1100	SUM:			1100
VOLUME/CAPACITY (V/C) RATIO:				0.673			0.679				0.727				0.733				0.733
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.573**			**0.579**				**0.627**				**0.633**				**0.633**
LEVEL OF SERVICE (LOS):				A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

9733-9857 Mason Ave and 20504-20524 Lassen St
DOT Case No. SFV 16-104785
DOT Project ID: 44863

Date: December 8, 2016

To: Kevin Jones, Senior City Planner
Department of City Planning

From: Sergio D. Valdez, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION STUDY ASSESSMENT FOR THE PROPOSED SWC MASON/LASSEN PROJECT AT THE SOUTHWEST CORNER OF THE INTERSECTION OF MASON AVENUE AND LASSSEN STREET**

The Department of Transportation (DOT) has reviewed the traffic analysis prepared by Linscott, Law & Greenspan, Engineers, dated October 24, 2016, for the proposed mixed-use commercial/residential project located at 9733-9857 Mason Avenue and 20504-20524 Lassen Street in the Chatsworth - Porter Ranch Community Plan area of the City of Los Angeles. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impact criteria[1], the traffic study included the detailed analysis of six intersections and determined that one of the study intersections would be significantly impacted by project-related traffic. The results of the traffic analysis, which adequately evaluated the project's traffic impacts on the surrounding community, are summarized in **Attachment 1**.

DISCUSSION AND FINDINGS

A. Project Description

The project site is located at the southwest corner of the intersection of Mason Avenue and Lassen Street. The project applicant proposes to construct a hotel with up to 125 rooms, 2,000 square feet of coffee shop with drive-through space, 6,400 square feet of fast-food restaurant with drive through space, and 10,350 square feet of high-turnover restaurant space. The project will also remodel an existing 20,125 square feet building into a health club. The project site is currently occupied by a 1,032 square foot automobile care center, 20,125 square feet of RV/boat storage, and 23,820 square feet of retail center. The traffic study did not include the total number of vehicular parking spaces or bicycle spaces to be provided on-site. Vehicular access would be accommodated via three driveways along Mason Avenue and two driveways along Lassen Street. The project is expected to be completed by 2018.

[1] Per DOT's Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

B. Trip Generation

The proposed project is expected to generate approximately 3,715 net new daily vehicular trips, a net increase of 345 trips during the a.m. peak hour and 257 trips during the p.m. peak hour. These estimates were derived using trip generation rates from the Institute of Transportation Engineers (ITE) "Trip Generation Handbook, 9th Edition." A copy of the trip generation table from the traffic study can be found in **Attachment 2**.

C. Traffic Impacts

In order to evaluate the effects of the project traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. DOT has determined that the project would result in significant traffic impacts at one intersection before mitigation based on a project build-out year of 2018. To off-set this significant traffic impact, the traffic study proposed a transportation mitigation program designed to reduce and mitigate these impacts (discussed in the "Project Requirements" section).

D. Freeway Analysis

The traffic study included a Congestion Management Program (CMP) intersection and freeway impact analysis that was prepared in accordance with the State-mandated program administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to the traffic study, the proposed project will not add 50 or more trips during either the a.m. or p.m. weekday peak hours to the CMP intersection monitoring location identified in the report at Topanga Canyon Boulevard and Devonshire Street; therefore, no further review of potential impacts to CMP intersection monitoring locations is needed. The traffic study also included one CMP freeway monitoring location at SR-118 Freeway at LA/Ventura County Line. According to this analysis, the proposed project would not add 150 or more trips during the a.m. or p.m. weekday peak hours to CMP freeway monitoring locations; therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

PROJECT REQUIREMENTS

A. Intersection Improvements at **Mason Avenue/Lassen Street**

The applicant is proposing to restripe Lassen Street to install a right-turn only lane on the eastbound approach to the Mason Avenue intersection within the existing roadway width. This intersection improvement (as shown in **Attachment 1**) would off-set the project's traffic impact to less than significant levels by providing one left-turn lane, two through lanes and an exclusive right-turn lane. This mitigation measure will require the prohibition of street parking along the south side of Lassen Street west of Mason Avenue adjacent to the project site. As the project will provide sufficient on-site parking, the removal of this existing street parking will not adversely

affect any adjacent land uses. Changes to the existing traffic signal equipment needed in conjunction with the recommended improvement would also be implemented as part of the mitigation measure. This intersection improvement is conceptually acceptable to DOT's West Valley District Office.

B. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

C. Highway Dedication and Street Widening Requirements

On August 11, 2015, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc.

Per the new Mobility Element both **Mason Avenue** has been redesignated to an Avenue II (Secondary Highway) that would require a 28-foot half-width roadway within a 43-foot half-width right-of-way. Likewise, **Lassen Street** has been redesignated to an Avenue II (Secondary Highway) that would require a 28-foot half-width roadway within a 43-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

D. Parking Requirements

The traffic study did not include the total number of vehicular parking spaces or bicycle spaces to be provided on-site for the proposed mix-use project. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

E. Site Access and Internal Circulation

The conceptual site plan (illustrated in **Attachment 3**) shows that vehicular access to the site will be provided via three driveways along the west side of Mason Avenue and two driveways along Lassen Street. The most easterly driveway on Lassen Street should be restricted to right-turns in and right-turns out only. The most southerly one-way ingress driveway on Mason Avenue would require a covenant and agreement between the developer and the neighbor property since it would be a shared driveway. The sub-standard middle driveway on Mason Avenue which proposes two ingress lanes and one egress lane would require a traffic signal analysis to determine if a signal would be required at this location.

The review of this study does not constitute approval of the driveway dimensions, access and circulation scheme. Final DOT approval is normally required prior to the issuance of any associated building permits. Approval is given when DOT receives an acceptable site and access plan and payment of all applicable application fees. For the fastest possible final review and approval process, plans should be submitted to DOT Valley Development Review, 6262 Van Nuys Blvd., Suite 320, Van Nuys 91401, prior to plan check submission to the Department of Building and Safety.

In order to minimize and prevent last minute building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. A minimum 40-foot reservoir space between the new property line and the first parking stall and/or security gate shall be provided or to the satisfaction of DOT. All truck loading and unloading should take place on site with no vehicles having to back into the street and they should be clearly shown in the site plan. All proposed two-way driveways shall be 30 feet wide, exclusive of side slopes or to the satisfaction of DOT.

F. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Vicente Cordero of my staff at (818) 374-4697.

Attachments

K:\Project Folders\San Fernando Valley\mas9733 SFV 16-104785

c: Hannah Lee, Council District 12
Ken Firoozmand, West Valley District Office, DOT
Tim Conger, Geometric Design, DOT
John Varghese, Signal Design, DOT
Ali Nahass, Valley District, BOE
Tin Nguyen, Linscott, Law & Greenspan, Engineers

Attachment 1

Volume to Capacity Ratios (*V/C*) and Levels of Service (LOS)

18-Oct-16

NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2016 EXISTING V/C	LOS	[2] YEAR 2016 EXISTING W/ PROJECT V/C	LOS	CHANGE V/C [(2)-(1)]	SIGNIF. IMPACT [a]	[3] YEAR 2018 FUTURE PRE-PROJECT V/C	LOS	[4] YEAR 2018 FUTURE W/ PROJECT V/C	LOS	CHANGE V/C [(4)-(3)]	SIGNIF. IMPACT [a]	[5] YEAR 2018 W/ PROJECT MITIGATION V/C	LOS	CHANGE V/C [(5)-(3)]	MITI-GATED
1	De Soto Ave /	AM	0.831	D	0.847	D	0.016	NO	0.880	D	0.894	D	0.014	NO	0.894	D	0.014	---
	Lassen Street	PM	0.810	D	0.828	D	0.018	NO	0.875	D	0.894	D	0.019	NO	0.894	D	0.019	---
2	Mason Avenue /	AM	0.892	D	0.901	E	0.009	NO	0.950	E	0.958	E	0.008	NO	0.958	E	0.008	---
	Devonshire Street	PM	0.856	D	0.865	D	0.009	NO	0.918	E	0.927	E	0.009	NO	0.927	E	0.009	---
3	Mason Avenue /	AM	1.017	F	1.065	F	0.048	YES	1.087	F	1.134	F	0.047	YES	1.055	F	-0.032	YES
	Lassen Street	PM	0.891	D	0.924	E	0.033	YES	0.957	E	0.991	E	0.034	YES	0.943	E	-0.014	YES
4	Mason Avenue /	AM	0.788	C	0.802	D	0.014	NO	0.843	D	0.857	D	0.014	NO	0.857	D	0.014	---
	Plummer Street	PM	0.737	C	0.753	C	0.016	NO	0.793	C	0.807	D	0.014	NO	0.807	D	0.014	---
5	Mason Avenue /	AM	0.925	E	0.934	E	0.009	NO	0.971	E	0.980	E	0.009	NO	0.980	E	0.009	---
	Nordhoff Street	PM	0.719	C	0.723	C	0.004	NO	0.775	C	0.779	C	0.004	NO	0.779	C	0.004	---
6	Winnetka Avenue /	AM	0.680	B	0.695	B	0.015	NO	0.765	C	0.780	C	0.015	NO	0.780	C	0.015	---
	Lassen Street	PM	0.573	A	0.579	A	0.006	NO	0.627	B	0.633	B	0.006	NO	0.633	B	0.006	---

[a] According to LADOT's "Traffic Study Policies and Procedures", August 2014, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
0.701 - 0.800	C	equal to or greater than 0.040
0.801 - 0.900	D	equal to or greater than 0.020
> 0.901	E, F	equal to or greater than 0.010

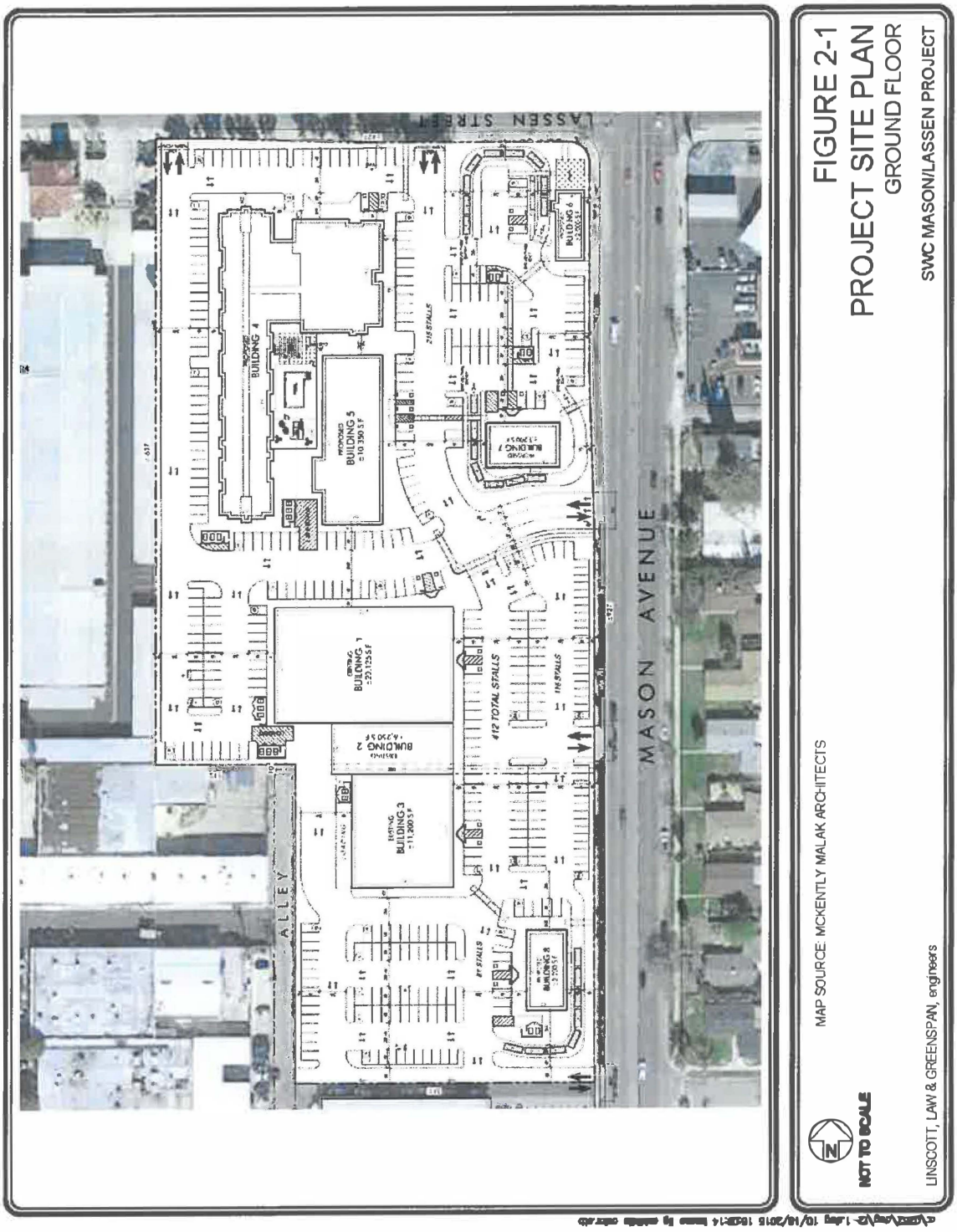
Attachment 2
Estimated Project Trip Generation

18-Oct-16

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2] IN	AM PEAK HOUR VOLUMES [2] OUT	AM PEAK HOUR VOLUMES [2] TOTAL	PM PEAK HOUR VOLUMES [2] IN	PM PEAK HOUR VOLUMES [2] OUT	PM PEAK HOUR VOLUMES [2] TOTAL
Proposed Project [3]								
Hotel (Building 4) [4]	125 Rooms	1,021	39	27	66	38	37	75
Health Club (Bldg. 1) [5]	20,125 GSF	663	14	14	28	40	31	71
Fast-Food Restaurant w/ DT (Bldg. 7 & 8) [6]	6,400 GSF	3,175	148	143	291	109	100	209
High-Turnover Restaurant (Bldg. 5) [7]	10,350 GSF	1,316	62	50	112	61	41	102
Coffee Shop with Drive-Through (Bldg. 6) [8]	2,000 GSF	1,637	103	98	201	43	43	86
Subtotal		7,812	366	332	698	291	252	543
Existing to be Removed								
Automobile Care Center [9]	(1,032) GLSF	(30)	(1)	(1)	(2)	(2)	(1)	(3)
RV/Boat Storage [10]	(20,125) GSF	(72)	(5)	(1)	(6)	(2)	(4)	(6)
Retail [11]	(23,820) GLSF	(1,023)	(15)	(9)	(24)	(44)	(45)	(89)
Subtotal		(1,125)	(21)	(11)	(32)	(48)	(50)	(98)
Transit [12] (5%)								
Hotel		(51)	(2)	(1)	(3)	(2)	(2)	(4)
Health Club		(33)	(1)	(1)	(2)	(2)	(2)	(4)
Fast-Food Restaurant w/ DT		(159)	(7)	(7)	(14)	(5)	(5)	(10)
High-Turnover Restaurant		(66)	(3)	(3)	(6)	(3)	(2)	(5)
Coffee Shop w/ DT		(82)	(5)	(5)	(10)	(2)	(2)	(4)
Subtotal		(391)	(18)	(17)	(35)	(14)	(13)	(27)
Existing Transit [12] (5%)								
Automobile Care Center		2	0	0	0	0	0	0
RV/Boat Storage		4	0	0	0	0	0	0
Retail		51	1	0	1	2	2	4
Subtotal		57	1	0	1	2	2	4
Internal Capture [13] (10%)								
Hotel		(97)	(4)	(3)	(7)	(4)	(4)	(8)
Health Club		(63)	(1)	(1)	(2)	(4)	(3)	(7)
Fast-Food Restaurant w/ DT		(302)	(14)	(14)	(28)	(10)	(10)	(20)
High-Turnover Restaurant		(125)	(6)	(5)	(11)	(6)	(4)	(10)
Coffee Shop w/ DT		(156)	(10)	(9)	(19)	(4)	(4)	(8)
Subtotal		(743)	(35)	(32)	(67)	(28)	(25)	(53)
Driveway Subtotal		**5,610**	**293**	**272**	**565**	**203**	**166**	**369**
Pass-By Trips [14]								
Health Club (20%)		(113)	(2)	(2)	(4)	(7)	(5)	(12)
Fast-Food Restaurant w/ DT (50%)		(1,357)	(64)	(61)	(125)	(47)	(43)	(90)
High-Turnover Restaurant (20%)		(225)	(11)	(8)	(19)	(10)	(7)	(17)
Coffee Shop w/ DT (50%)		(700)	(44)	(42)	(86)	(19)	(19)	(38)
Existing Pass-By Trips [14]								
Automobile Care Center (10%)		14	1	1	2	1	1	2
Retail (50%)		486	7	5	12	21	22	43
NET TRIPS		**3,715**	**180**	**165**	**345**	**142**	**115**	**257**

[1] Source: ITE "Trip Generation", 9th Edition, 2012.
[2] Trips are one-way traffic movements, entering or leaving

Attachment 3
Conceptual Site Plan



MEMORANDUM

To:	Vicente Cordero Los Angeles Department of Transportation	Date:	March 17, 2017
From:	David S. Shender, P.E. Linscott, Law & Greenspan, Engineers	LLG Ref:	5-16-0282-1
Subject:	**SWC Mason/Lassen Project – Project Driveway Traffic Signal Analysis Addendum**		

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This memorandum has been prepared by Linscott, Law & Greenspan, Engineers (LLG) to provide an addendum analysis for the proposed SWC Mason/Lassen project located at the southwest corner of the Mason Avenue and Lassen Street intersection in the Chatsworth area of the City of Los Angeles, California. LLG previously prepared the traffic impact study dated October 24, 2016 for the project (the "2016 Traffic Study"). The findings of the original traffic study report were confirmed based on the Los Angeles Department of Transportation (LADOT) traffic assessment letter dated December 8, 2016.

Within the LADOT traffic assessment letter, paragraph E. of the Project Requirements section therein states in part: "The sub-standard middle driveway on Mason Avenue which proposes two ingress lanes and one egress lane would require a traffic signal analysis to determine if a signal would be required at this location."

As a follow-up, LLG has coordinated with LADOT and confirmed that the driveway would be considered standard if: 1) the driveway is designed to be 30-feet in width per LADOT's Manual of Policies and Procedures No. 321 (as opposed to 36 feet shown on the site plan provided in the traffic study; and 2) the driveway accommodates one inbound lane and one outbound lane (as opposed to two inbound lanes and one outbound lane shown on the site plan provided in the traffic study). The project applicant has stated it will comply with these requirements to make the driveway standard. As noted in the LADOT traffic assessment letter, final approval of the site plan is provided by LADOT prior to the issuance of building permits for the project.

To further respond to the comment in the LADOT traffic assessment letter, a traffic signal warrant analysis has been prepared. While the LADOT letter references the project's middle driveway, this memorandum provides a traffic signal warrants analysis for each of the project's three driveways on Mason Avenue. The traffic signal warrant analysis was prepared based on criteria set forth in Chapter 4C of the *Manual on Uniform Traffic Control Devices (MUTCD)*[1]. Warrant No. 2 (Four Hour Vehicular Volume) and Warrant No. 3 (Peak Hour Volume) traffic signal warrants were prepared. The traffic signal warrant calculations were based on future forecast cumulative plus project traffic volumes along all approaches.

[4] *Manual on Uniform Traffic Control Devices (MUTCD),* 2014 California Supplement, November 7, 2014.

Existing Conditions

The following provides a summary of existing conditions, as well as factors assumed and data collected in preparing the traffic signal warrant analysis:

- The three proposed Mason Avenue/Project Driveway intersections will be controlled by a stop sign facing the side street (Project Driveway) approaches.

- Mason Avenue was assumed to be the major street while the Project Driveway was assumed to be the minor street.

- Mason Avenue is posted for a 40 miles per hour speed limit in the project vicinity.

- Peak hour traffic counts along Mason Avenue were extrapolated from the Mason Avenue/Lassen Street intersection. Copies of the traffic counts for the intersection and approaches are contained in the 2016 Traffic Study.

- Traffic volumes utilizing the project driveways were derived based on the forecast AM and PM peak hour volumes provided in the 2016 Traffic Study.

The future with project scenario evaluated existing traffic volumes, project-related traffic volumes, traffic related to nearby related projects, and ambient growth.

Traffic Signal Warrant Analysis

The following paragraphs provide a detailed discussion of the traffic signal warrant prepared for the three Mason Avenue project driveways. Copies of the traffic signal warrant data worksheets are contained in ***Appendix A***.

Warrant 2: Four Hour Vehicular Volume Warrant

The Four Hour Vehicular Volume Warrant is intended for application at locations where a large volume of traffic along a major street occurs during any four one-hour periods of a day. Warrant No. 2 is not satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve for only one point in Figure 4C-2 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 400 vehicles per hour while the lower threshold for a minor street with one approach lane is 80 vehicles per hour.

As indicated in Figure 4C-1 provided on pages A-2, A-5, and A-8 in *Appendix A*, the plotted point for the Four Hour Vehicular Volume is only above the applicable curve for future with project conditions for the Mason Avenue/Northerly Mason Avenue Project Driveway intersection twice. For the remaining two Mason Avenue/Project Driveway intersections, all four plotted points for the Four Hour Vehicular Volume fall below the applicable curve for future with project conditions. Therefore, Warrant No. 2 is not satisfied for any of the three Mason Avenue project driveways under future with project conditions.

Warrant 3: Peak Hour Volume Warrant

The Peak Hour Volume Warrant is applied for land uses that attract or discharge large numbers of vehicles over a short period of time. Warrant No. 3 is satisfied when the plotted point, representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) for one hour of an average day, falls above the curve in Figure 4C-4 for the applicable number of approach lanes. The lower threshold for a major street approach with two or more lanes is 500 vehicles per hour while the lower threshold for a minor street approach with one lane is 100 vehicles per hour.

As indicated in Figure 4C-3 provided on pages A-3, A-6, and A-9 in *Appendix A*, the plotted point for the peak hour falls below the applicable curve for future with project conditions for all three Mason Avenue/Project Driveway intersections. Therefore, Warrant No. 3 is not satisfied for any of the three Mason Avenue project driveways under future with project conditions.

Traffic Signal Warrants Conclusions

Table 1 provides a summary of the traffic signal warrants analysis prepared for the three proposed stop-sign controlled intersections. The findings are provided below:

Mason Avenue/Northerly Mason Avenue Driveway

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for future plus project conditions.

Mason Avenue / Middle Mason Avenue Driveway

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for future plus project conditions.

Mason Avenue / Southerly Mason Avenue Driveway

- The Warrant 2 (Four Hour) and Warrant 3 (Peak Hour) are not satisfied for future plus project conditions.

As noted above and in *Table 1*, project-related traffic will not cause the need for traffic signal control at any of the three intersections. Under future plus project conditions, the forecast volumes satisfy none of the analyzed warrants at each intersection. Therefore, the installation of a traffic signal at any of the three Mason Avenue/Project Driveway intersections is not required as part of the project.

As noted in the MUTCD document, the satisfaction of traffic signal warrants does not necessarily justify the installation of a traffic signal. Delay, congestion, approach conditions, driver behavior, intersection location/vicinity, and/or other evidence of the need for right-of-way assignment beyond that which could be provided by stop-sign control may also be demonstrated.

Attachments

cc: File

Table 1
TRAFFIC SIGNAL WARRANTS SUMMARY [A]

16-Mar-17

NO.	INTERSECTION	FUTURE + PROJECT	
		WARRANT 2 4-HOUR SATISFIED? [B]	WARRANT 3 PEAK HOUR SATISFIED? [B]
1	Mason Avenue / Northerly Mason Avenue Driveway	NO	NO
2	Mason Avenue / Middle Mason Avenue Driveway	NO	NO
3	Mason Avenue / Southerly Mason Avenue Driveway	NO	NO

[A] Traffic signal warrant analysis based on the Manual on Uniform Traffic Control Devices (MUTCD), 2014 California Supplement, November 7, 2014.

[B] Traffic signal warrant data worksheets are contained in *Appendix A.*

APPENDIX A

LADOT TRAFFIC SIGNAL WARRANT WORKSHEETS

Traffic Signal Warrants Worksheet

DATE 3/16/2017

CALC MB

CHK

Major St: Mason Avenue — Critical Approach Speed 40 mph

or

Minor St: Northerly Mason Avenue Driveway — Speed Limit 40 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

or

In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)

☑ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume — SATISFIED YES ☐ NO ☐

a. Condition A or Condition B or combination of A and B must be satisfied.

b. 6 hour manual count may be used in lieu of 8 hour count.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.

d. A reduction for right turning vehicles that turn within 45 seconds may be applied.

e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.

f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)											
	U	R	U	R								
APPROACH LANES	1		2 or More									Hour
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)								
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)								

Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)											
	U	R	U	R								
APPROACH LANES	1		2 or More									Hour
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)								
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)								

Traffic Signal Warrants Worksheet

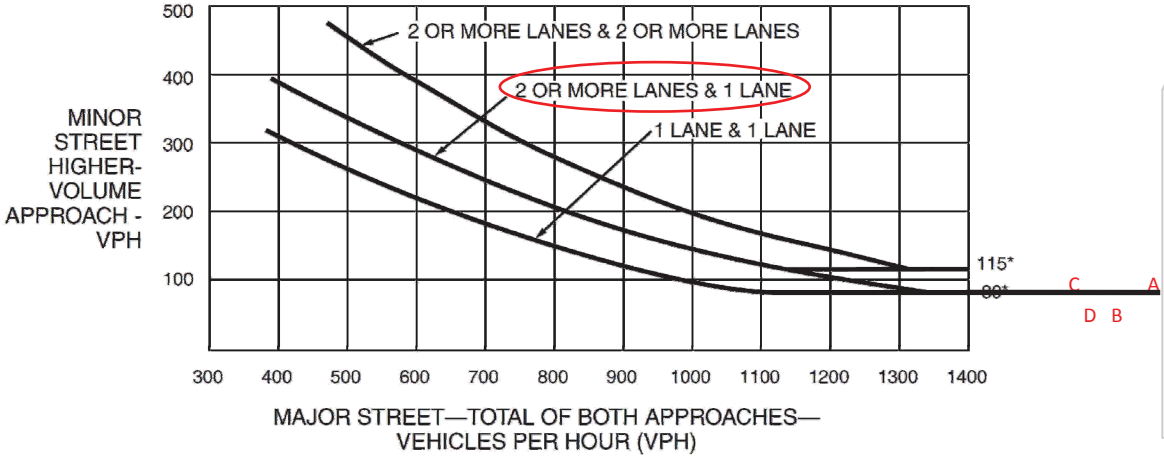
WARRANT 2 - Four Hour Vehicular Volume **SATISFIED YES ☐ NO ☒**

a. Record hourly vehicle volumes for any four hours of an average day.
b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 7AM	B 5PM	C 8AM	D 4PM	Hour
Both Approaches - Major Street		✓	3189	2829	2728	2753	
Higher Approach - Minor Street	✓		81	50	81	50	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☒
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☐

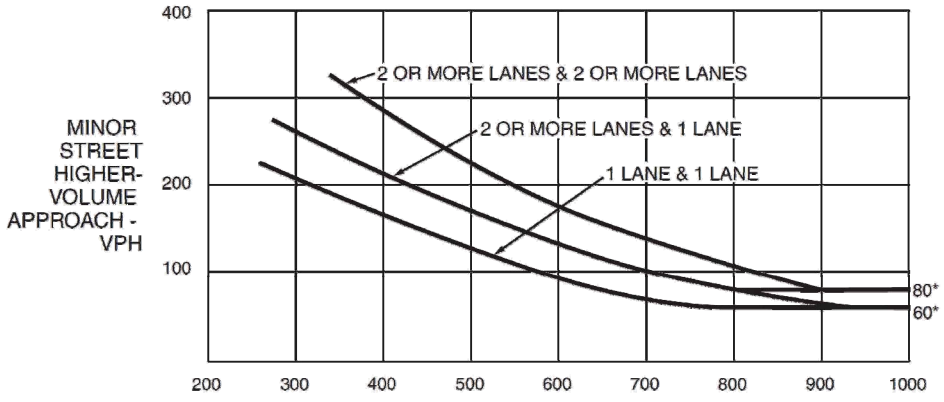
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**

a. Part A or Part B must be satisfied.

b. A reduction for right turning vehicle that turn within 45 seconds may be applied.

c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

d. See Section 4C.102(CA) for bicycle signal guidelines.

PART A **SATISFIED YES ☐ NO ☐**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

PART B **SATISFIED YES ☐ NO ☒**

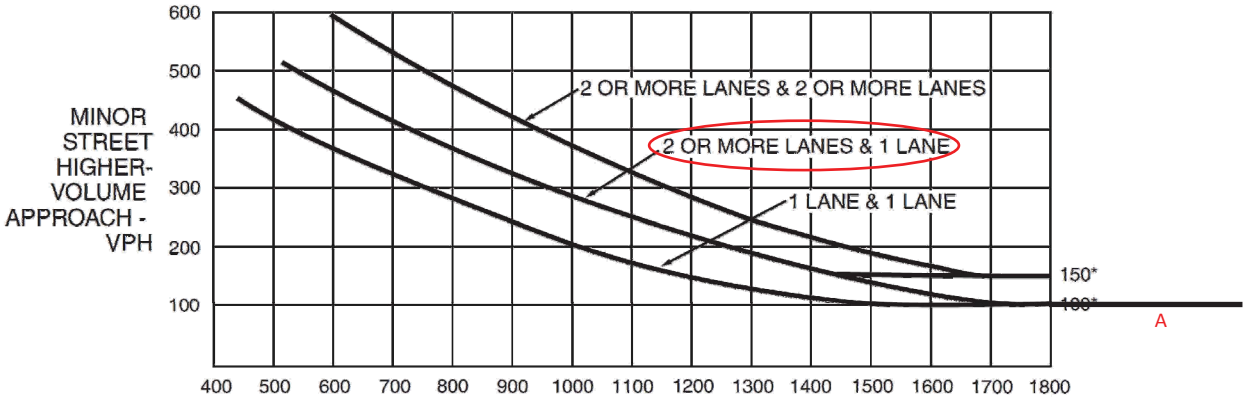
APPROACH LANES	One	2 or More	A 7AM Hour
Both Approaches - Major Street		✓	3189
Higher Approach - Minor Street	✓		81

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

DRAFT

Figure 4C-3. Warrant 3, Peak Hour



*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.

Traffic Signal Warrants Worksheet

DATE 3/16/2017

CALC MB

CHK

Major St: Mason Avenue — Critical Approach Speed 40 mph

or

Minor St: Middle Mason Avenue Driveway — Speed Limit 40 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

or

In built up area of isolated community of < 10,000 population..... ☐ } RURAL (R)

☑ URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume — SATISFIED YES ☐ NO ☐

a. Condition A or Condition B or combination of A and B must be satisfied.

b. 6 hour manual count may be used in lieu of 8 hour count.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.

d. A reduction for right turning vehicles that turn within 45 seconds may be applied.

e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.

f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												Hour
	U	R	U	R									
APPROACH LANES	1		2 or More										
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)									
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)									

Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												Hour
	U	R	U	R									
APPROACH LANES	1		2 or More										
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)									
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)									

Traffic Signal Warrants Worksheet

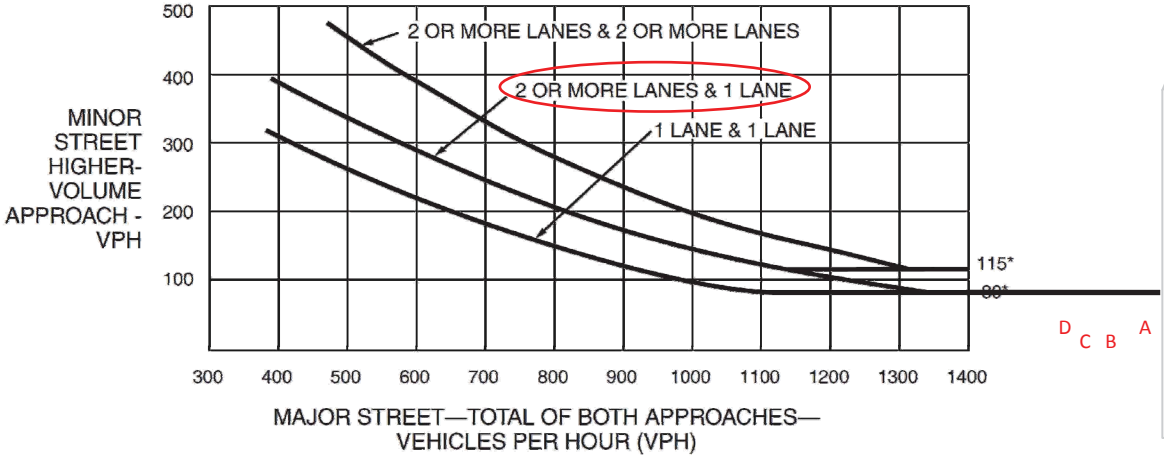
WARRANT 2 - Four Hour Vehicular Volume **SATISFIED YES ☐ NO ☒**

a. Record hourly vehicle volumes for any four hours of an average day.
b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 7AM	B 5PM	C 4PM	D 8AM	Hour
Both Approaches - Major Street		✓	3200	2834	2758	2739	
Higher Approach - Minor Street	✓		28	16	16	28	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☒
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☐

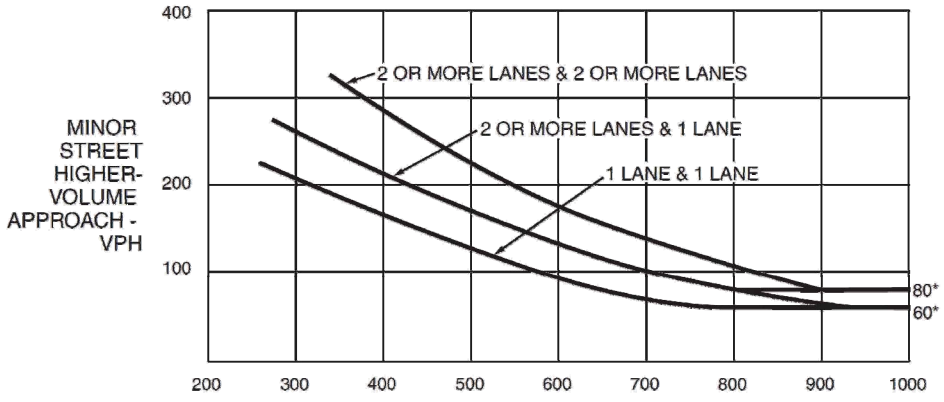
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

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Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**

a. Part A or Part B must be satisfied.

b. A reduction for right turning vehicle that turn within 45 seconds may be applied.

c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

d. See Section 4C.102(CA) for bicycle signal guidelines.

PART A **SATISFIED YES ☐ NO ☐**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

PART B **SATISFIED YES ☐ NO ☒**

APPROACH LANES	One	2 or More	A 7AM Hour
Both Approaches - Major Street		✓	3200
Higher Approach - Minor Street	✓		28

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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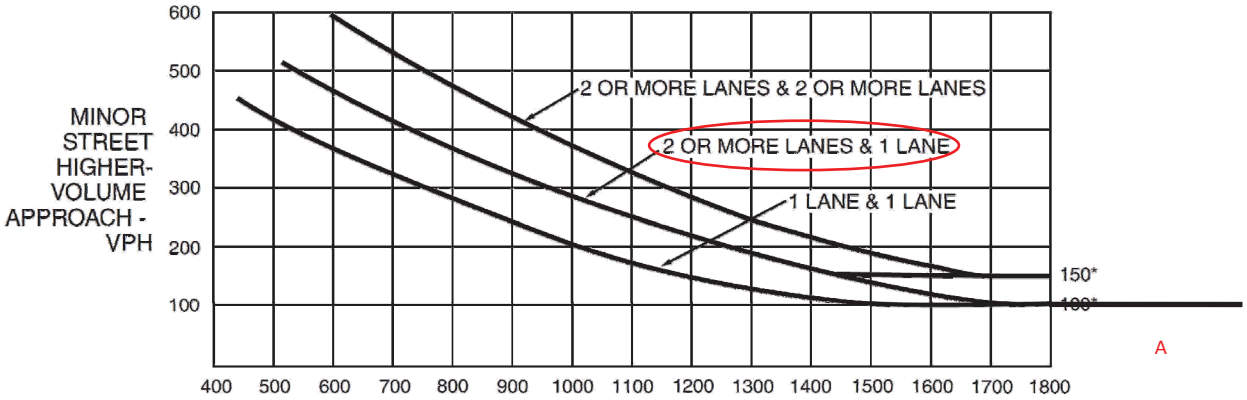
Figure 4C-3. Warrant 3, Peak Hour



*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.

Traffic Signal Warrants Worksheet

DATE 3/16/2017

CALC MB

CHK

Major St: Mason Avenue — Critical Approach Speed 40 mph

or

Minor St: Southerly Mason Avenue Driveway — Speed Limit 40 mph

Speed limit or critical speed on major street traffic > 40 mph..... ☐

or

In built up area of isolated community of < 10,000 population..... ☐ } **RURAL (R)**

☑ **URBAN (U)**

WARRANT 1 - Eight Hour Vehicular Volume — SATISFIED YES ☐ NO ☐

a. Condition A or Condition B or combination of A and B must be satisfied.

b. 6 hour manual count may be used in lieu of 8 hour count.

c. In applying each condition, the major street and minor street volumes shall be for the same hours. On the minor street, the higher volume does not need to be the same approach during end of the hours.

d. A reduction for right turning vehicles that turn within 45 seconds may be applied.

e. Figure 4C-103(CA) should be used for new intersections or where it is not reasonable to use current traffic volumes.

f. See Section 4C.102(CA) for bicycle signal guidelines.

DRAFT

Condition A - Minimum Vehicle Volume

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									Hour
APPROACH LANES	1		2 or More										
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)									
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)									

Condition B - Interruption of Continuous Traffic

100% SATISFIED YES ☐ NO ☐

80% SATISFIED YES ☐ NO ☐

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									Hour
APPROACH LANES	1		2 or More										
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)									
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)									

Traffic Signal Warrants Worksheet

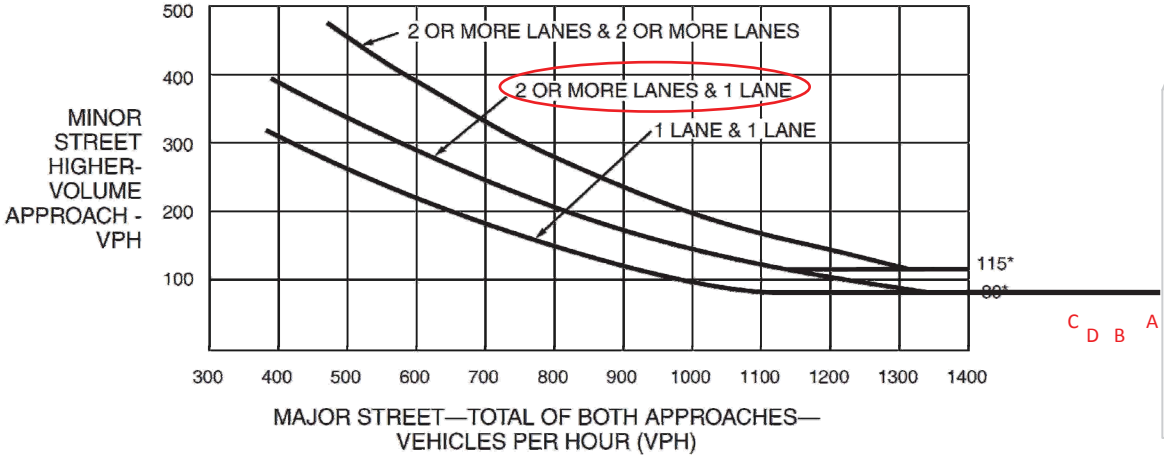
WARRANT 2 - Four Hour Vehicular Volume **SATISFIED YES ☐ NO ☒**

a. Record hourly vehicle volumes for any four hours of an average day.
b. A reduction for right turning vehicles that turn within 45 seconds may be applied.

APPROACH LANES	One	2 or More	A 7AM	B 5PM	C 8AM	D 4PM	Hour
Both Approaches - Major Street		✓	3214	2844	2753	2768	
Higher Approach - Minor Street	✓		41	25	41	25	

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes ☐ No ☒
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes ☐ No ☐

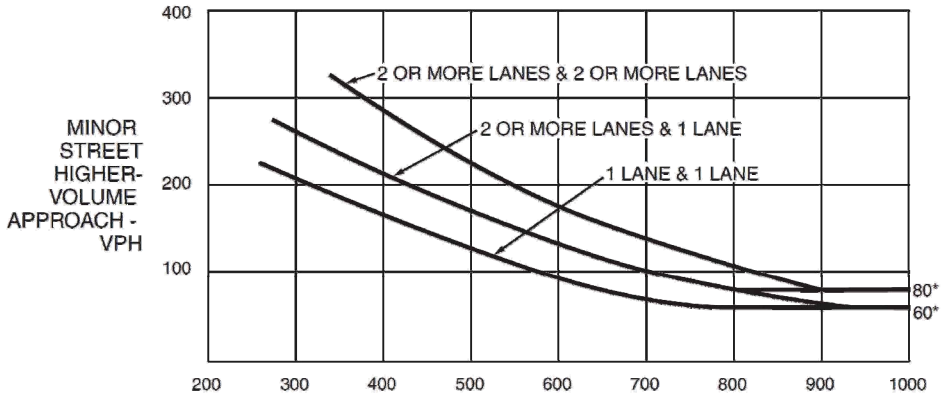
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

DRAFT

Traffic Signal Warrants Worksheet

WARRANT 3 - Peak Hour **SATISFIED YES ☐ NO ☒**

a. Part A or Part B must be satisfied.

b. A reduction for right turning vehicle that turn within 45 seconds may be applied.

c. Estimated Average Daily Traffic may be used for new intersections, significantly reconstructed intersections, or where near-term land development will result in increased volumes.

d. See Section 4C.102(CA) for bicycle signal guidelines.

PART A **SATISFIED YES ☐ NO ☐**

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND	Yes ☐ No ☐
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND	Yes ☐ No ☐
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes ☐ No ☐

PART B **SATISFIED YES ☐ NO ☒**

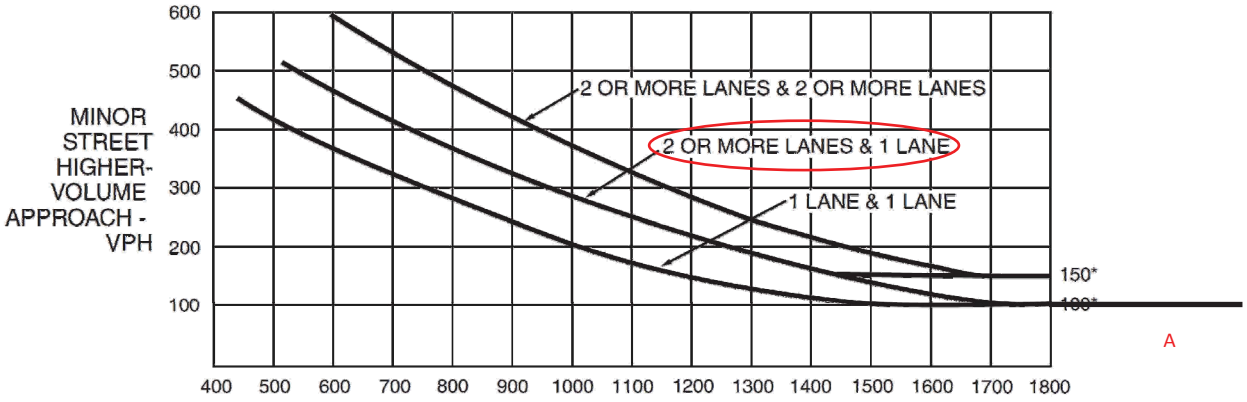
APPROACH LANES	One	2 or More	A 7AM Hour
Both Approaches - Major Street		✓	3214
Higher Approach - Minor Street	✓		41

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes ☐ No ☒
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes ☐ No ☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

DRAFT

Figure 4C-3. Warrant 3, Peak Hour



*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.

H. UTILITIES SERVICE LETTERS

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CALIFORNIA

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WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

November 30, 2016

Ms. Rachel Zacuto, Assistant Environmental Planner
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Ms. Zacuto:

HRI LASSEN MASON PROJECT-REQUEST FOR WASTEWATER SERVICES INFORMATION

This is in response to your October 3, 2016 letter requesting a review of your proposed mixed-use project located at 20504 Lassen St, 98356-9857 Mason Ave, 9825-9833 Mason Ave, 9805 Mason Ave, and 20524 Lassen Ave, Los Angeles, CA 91311. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Existing			
Retail	25 GPD/1000 SQ.FT	23,820 SQ.FT	(596)
Proposed			
Hotel	120 GPD/ROOM	124 ROOMS	14,880
Gymnasium	200 GPD/1000 SQ.FT	20,125 SQ.FT	4,025
Retail Area (less than	25 GPD/1000	19,175 SQ.FT	479

100,000 SF)	SQ.FT		
Restaurant: Take Out	300 GPD/1000 SQ.FT	7,825 SQ.FT	436
Restaurant	300 GPD/1000 SQ.FT	10,350 SQ.FT	3,105
Total			**22,330**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 8-inch line on Mason Ave. The sewage from the existing 8-inch sewer line discharges into a 15-inch sewer line on Mason Ave, flows into a 24-inch sewer line on Winnetka Ave and feeds into a 21-inch sewer line on Winnetka Ave. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 8-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
8	Mason Ave	*	441,111 GPD
15	Mason Ave	10	1.82 MGD
24	Winnetka Ave	24	4.80 MGD
21	Winnetka Ave	39	3.01 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

If you have any questions, please call Chris DeMonbrun of my staff at (323) 342-1567.

STORMWATER REQUIREMENTS

LA Sanitation, Watershed Protection Division (WPD) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

The project requires implementation of stormwater mitigation measures. These requirements are based on Stormwater Low Impact Development (LID) requirements. The projects that are subject to LID are required to incorporate measures to mitigate the impact of stormwater runoff. The requirements are outlined in the guidance manual titled "*Development Best Management Practices Handbook – Part B: Planning Activities*". Current regulations prioritize infiltration, capture/use, and then biofiltration as the

preferred stormwater control measures. The relevant documents can be found at: www.lastormwater.org. It is advised that input regarding LID requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements.

CONSTRUCTION REQUIREMENTS

The project is required to implement stormwater control measures during its construction phase. All projects are subject to a set of minimum control measures to lessen the impact of stormwater pollution. In addition for projects that involve construction during the rainy season that is between October 1 and April 15, a Wet Weather Erosion Control Plan is required to be prepared. Also projects that disturb more than one-acre of land are subject to the California General Construction Stormwater Permit. As part of this requirement a Notice of Intent (NOI) needs to be filed with the State of California and a Storm Water Pollution Prevention Plan (SWPPP) needs to be prepared. The SWPPP must be maintained on-site during the duration of construction.

If there are questions regarding the stormwater requirements, please call Kosta Kaporis at (213) 485-0586, or WPD's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Floor, Station 18.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers the Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact Daniel Hackney of the Special Project Division at (213)485-3684.

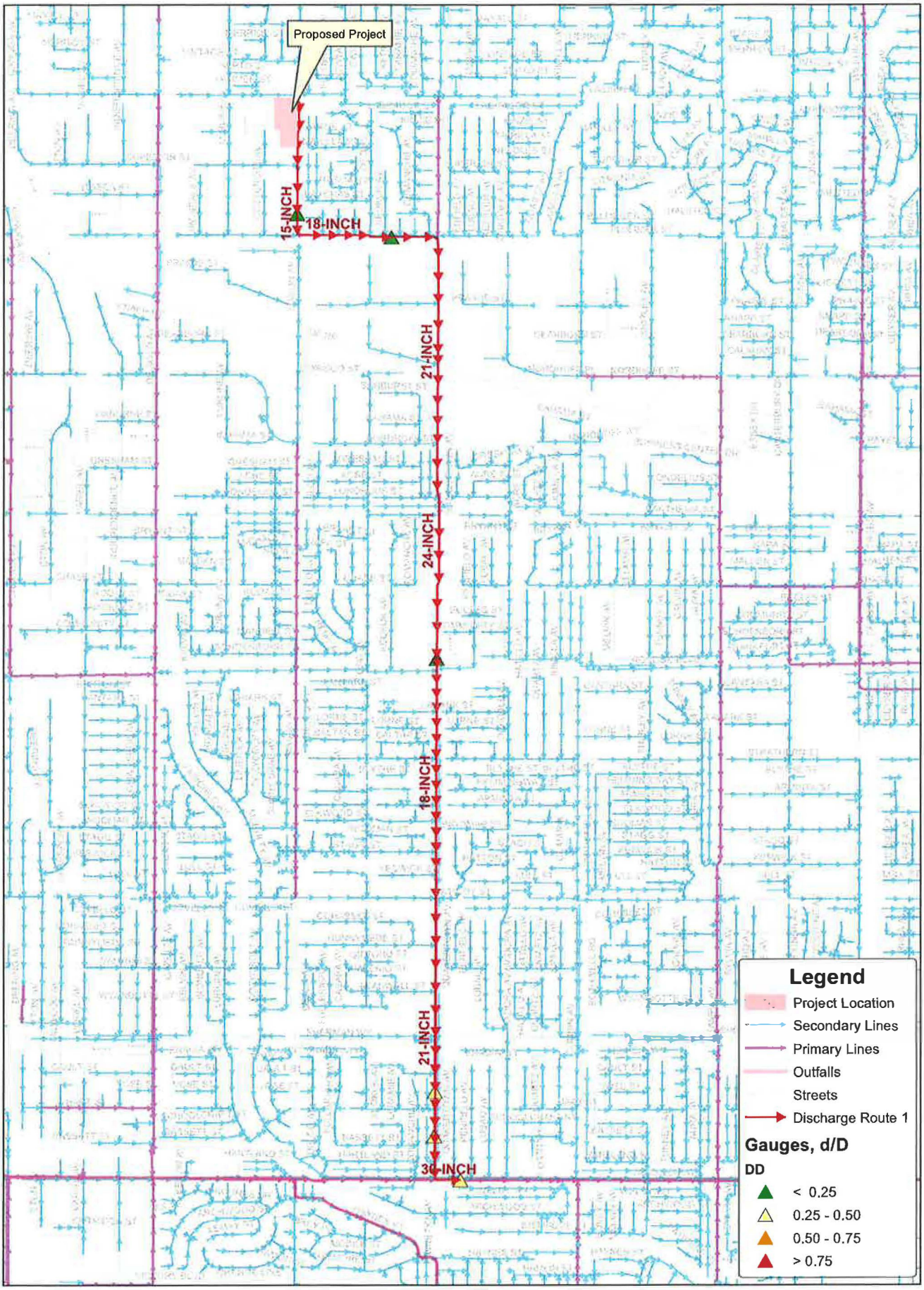
Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

CD/AP:as

Attachment: Figure 1 – Sewer Map

c: Kosta Kaporis, LASAN
Daniel Hackney, LASAN
Chris DeMonbrun, LASAN



Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

Figure 1
HRI Lassen Mason Project
Sewer Map

N
W
E
S

0 500 1,000 2,000 3,000 4,000
Feet

Thomas Brother Data reproduced with permission granted by THOMAS BROS MAP

MITIGATION MONITORING PROGRAM

Section 21081.6 of the Public Resources Code requires a Lead Agency to adopt a "reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment" (Mitigation Monitoring Program, Section 15097 of the *CEQA Guidelines* provides additional direction on mitigation monitoring or reporting). This Mitigation Monitoring Program (MMP) has been prepared in compliance with the requirements of CEQA, Public Resources Code Section 21081.6, and Section 15097 of the CEQA Guidelines. The City of Los Angeles is the Lead Agency for this project.

A Mitigated Negative Declaration (MND) has been prepared to address the potential environmental impacts of the Project. Where appropriate, this environmental document identified Project design features, regulatory compliance measures, or recommended mitigation measures to avoid or to reduce potentially significant environmental impacts of the Proposed Project. This Mitigation Monitoring Program (MMP) is designed to monitor implementation of the mitigation measures identified for the Project.

The MMP is subject to review and approval by the City of Los Angeles as the Lead Agency as part of the approval process of the project, and adoption of project conditions. The required mitigation measures are listed and categorized by impact area, as identified in the MND.

The Project Applicant shall be responsible for implementing all mitigation measures, unless otherwise noted, and shall be obligated to provide documentation concerning implementation of the listed mitigation measures to the appropriate monitoring agency and the appropriate enforcement agency as provided for herein. All departments listed below are within the City of Los Angeles unless otherwise noted. The entity responsible for the implementation of all mitigation measures shall be the Project Applicant unless otherwise noted.
As shown on the following pages, each required mitigation measure for the proposed Project is listed and categorized by impact area, with accompanying discussion of:

Enforcement Agency – the agency with the power to enforce the Mitigation Measure.

Monitoring Agency – the agency to which reports involving feasibility, compliance, implementation and development are made, or whom physically monitors the project for compliance with mitigation measures.

Monitoring Phase – the phase of the Project during which the Mitigation Measure shall be monitored.

- Pre-Construction, including the design phase
- Construction
- Pre-Operation
- Operation (Post-construction)

Monitoring Frequency – the frequency of which the Mitigation Measure shall be monitored.

Action Indicating Compliance – the action of which the Enforcement or Monitoring Agency indicates that compliance with the required Mitigation Measure has been implemented.

The MMP performance shall be monitored annually to determine the effectiveness of the measures implemented in any given year and reevaluate the mitigation needs for the upcoming year.

It is the intent of this MMP to:

Verify compliance of the required mitigation measures of the EIR;

Provide a methodology to document implementation of required mitigation;

Provide a record and status of mitigation requirements;

Identify monitoring and enforcement agencies;

Establish and clarify administrative procedures for the clearance of mitigation measures;

Establish the frequency and duration of monitoring and reporting; and

Utilize the existing agency review processes' wherever feasible.

This MMP shall be in place throughout all phases of the proposed Project. The entity responsible for implementing each mitigation measure is set forth within the text of the mitigation measure. The entity responsible for implementing the mitigation shall also be obligated to provide certification, as identified below, to the appropriate monitoring agency and the appropriate enforcement agency that compliance with the required mitigation measure has been implemented.

After review and approval of the final MMP by the Lead Agency, minor changes and modifications to the MMP are permitted, but can only be made by the Applicant or its successor subject to the approval by the City of Los Angeles through a public hearing. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. The flexibility is necessary in light of the proto-typical nature of the MMP, and the need to protect the environment with a workable program. No changes will be permitted unless the MMP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

MITIGATION MONITORING PROGRAM

Aesthetics

1-1: Non-Protected Trees

- Prior to issuance of any permit related to development of the Project, a plot plan shall be prepared for the Project, indicating the location, size, type, and general condition of all existing trees on the Project site and within the adjacent public right(s)-of-way.

- All significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the Project site proposed for removal shall be replaced at a 1:1 ratio with a minimum 24-inch box tree. Net new trees located within the parkway of the adjacent public-right(s)-of-way may be counted toward replacement tree requirements.

- Removal or planning of any tree in the public right-of-way shall require approval of the Board of Public Works. All trees in the public right-of-way shall be provided in the current standards of the Urban Forestry Division of the Department of Public Works, Bureau of Street Services.

Enforcement Agency: Board of Public Works Urban Forestry Division

Monitoring Agency: Board of Public Works Urban Forestry Division

Monitoring Phase: Pre-Construction, Construction

Monitoring Frequency: Once during plan check, once during field inspection

Action Indicating Compliance: Issuance of Certificate of Occupancy

Biology

4-1: To avoid potential significant impacts to nesting birds, including migratory birds and raptors, one of the following shall be implemented by the Project Applicant:

- Conduct vegetation removal associated with construction from September 1st through January 31st, when birds are not nesting. Initiate grading activities prior to the breeding season (which is generally February 1st through August 31st) and keep disturbance activities constant throughout the breeding season to prevent birds from establishing nests in surrounding habitat (in order to avoid possible nest

abandonment); if there is a lapse in activities of more than five days, pre-construction surveys shall be necessary as described in the bullet below.

OR…

- Conduct pre-construction surveys for nesting birds if vegetation removal or grading is initiated during the nesting season. A qualified wildlife biologist shall conduct weekly pre-construction bird surveys no more than 30 days prior to initiation of grading to provide confirmation on the presence or absence of active nests in the vicinity (at least 300 to 500 feet around the individual construction site, as access allows). The last survey should be conducted no more than three days prior to the initiation of clearance/construction work. If active nests are encountered, clearing and construction in the vicinity of the nests shall be deferred until the young birds have fledged and there is no evidence of a second attempt at nesting. A minimum buffer of 300 feet (500 feet for raptor nests) or as determined by a qualified biologist shall be maintained during construction depending on the species and location. The perimeter of the nest-setback zone shall be fenced or adequately demarcated with staked flagging at 20-foot intervals, and construction personnel and activities restricted from the area. Construction personnel should be instructed on the sensitivity of the area. A survey report by the qualified biologist documenting and verifying compliance with the mitigation and with applicable state and federal regulations protecting birds shall be submitted to the City and County, depending on within which jurisdiction the construction activity is occurring. The qualified biologist shall serve as a construction monitor during those periods when construction activities would occur near active nest areas to ensure that no inadvertent impacts on these nests would occur.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Once, prior to issuance of building permit; or, if vegetation removal, building demolition or grading is initiated during the nesting season, as determined by a qualified biologist

Action Indicating Compliance: if vegetation removal, building demolition, or grading is initiated during the nesting season, submittal of a survey report by a qualified biologist.

Cultural Resources

5-1: Prior to issuance of a Certificate of Occupancy, the Project Applicant shall coordinate with the Department of Building and Safety to ensure that the following features have been incorporated into the Project:

- Low-pitched gable roof: All enclosures for mechanical equipment that must be placed on the roof should avoid visibility from the primary façade or the main view from the northwest corner of the former Safeway building.

- Exposed glulam roof beams, exposed at the gable ends, on the north façade eaves, and at the interior ceiling: Where unpainted, gluelam beams shall remain unpainted in order to show the striations of the layers of wood. This applies chiefly to the interior, as the exterior beam ends have been painted.

  Interior beams should remain exposed. If they are covered, the treatment should be reversible in accordance with Standard #2.

- Unornamented buff-colored brick veneer with raked horizontal joints: The brick of the front façade that has been poorly patched in limited areas on the façade and planters shall be cleaned of excess mortar and the bricks re-set properly to match adjacent unaltered surfaces and mortar joints. Any new brick that is needed for repairs should be salvaged from the smaller buildings on the site that were built concurrently of the same materials but which were determined not to be historic resources.

- Painted concrete wall panels: The essential character of the closed façade marked by concrete structural bays shall remain.

- Floor-to-ceiling window arrangement at the entrance to the primary (east) façade: This area shall maintain the same configuration. The non-original fenestration shall be replaced. No changes to the arrangement of brick features on the primary façade shall occur.

- Pattern of punched rectangular windows with obscure glass in multiple colors at the primary facades: Salvage and reuse the colored glass, which is an original feature. Source similar glass where panes may be broken. Remount original glass in original openings with a new sealant or putty as appropriate to maintain historic appearance of this feature.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Once, prior to issuance of certificate of occupancy

Action Indicating Compliance: Issuance of certificate of occupancy

Hazards and Hazardous Materials

8-1: Prior to issuance of a demolition permit for buildings located on OU2 and OU3 of the Project site, the Project Applicant shall submit a No Further Action letter issued by DTSC to the Department of Building and Safety.

Enforcement Agency: Los Angeles Fire Department; Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Fire Department; Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction

Monitoring Frequency: Once, prior to issuance of a demolition permit

Action Indicating Compliance: Issuance of a demolition permit

Noise

12-1: All powered construction equipment shall be equipped with exhaust mufflers or other suitable noise reduction devices capable of achieving a sound attenuation of at least 3 dBA. On-site power generators shall either be plug-in electric or solar powered.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during field inspection

Action Indicating Compliance: Issuance of Certificate of Occupancy or Use of Land

12-2: Temporary sound barriers capable of achieving a sound attenuation of at least 5 dBA shall be erected along the Project's northern, eastern, and southern boundaries.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Ongoing during field inspection

Action Indicating Compliance: Issuance of Certificate of Occupancy or Use of Land

Transportation and Traffic

16-1: **Mason Avenue/Lassen Street** - Prior to issuance of a Certificate of Occupancy, the Project Applicant shall restripe the eastbound Lassen Street approach to the Mason Avenue intersection within the existing roadway width to provide one left-turn lane, two through lanes, and one right-turn lane and shall change the existing traffic signal equipment to accommodate the changed lane configuration.

Enforcement Agency: Los Angeles Department of Transportation, Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Transportation, Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Once, during construction

Action Indicating Compliance: Issuance of Certificate of Occupancy or Land Use Permit

16-2: In accordance with LADOT's requirements, the Project Applicant shall implement the following:

- Prior to issuance of any construction-related permit, the Project Applicant shall submit a construction work site traffic control plan to LADOT for review and approval. The plan shall show the location(s) of any roadway or sidewalk closures, traffic detours, haul routes, hours of construction, protective devices, warning signs, and access to abutting properties. All construction-related traffic shall be restricted to off-peak hours.

- Prior to issuance of a building permit, the Project Applicant shall check with the City's Bureau of Engineering Land Development Group to determine the specific highway dedication, street widening, and/or sidewalk requirements for the Project.

- The Project Applicant shall check with the City's Department of Building and Safety to confirm the number of Code-required parking spaces for the Project.

- The southerly one-way ingress driveway on Mason Avenue shall require a covenant and agreement between the Project Applicant and the neighbor property owner.

- Final LADOT approval of driveway dimensions, access, and circulation schemes shall be obtained from prior to issuance of any associated building permits.

- In order to minimize and prevent last minute building design changes, the Project Applicant shall contact LADOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans.

- A minimum 40-foot reservoir space between the new property line and the first parking stall and/or security gate shall be provided or to the satisfaction of LADOT.

- All truck loading and unloading shall take place onsite with no vehicles backing into the street. The loading/unloading areas shall be shown clearly on the Project site plans.

- All proposed two-way driveways shall be 30 feet wide, exclusive of side slope or to the satisfaction of LADOT.

Enforcement Agency: Los Angeles Department of Transportation, Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Transportation, Los Angeles Department of Building and Safety

Monitoring Phase: Pre-construction, Construction

Monitoring Frequency: Ongoing, during construction

Action Indicating Compliance: Issuance of construction-related permits and building permits

TRIBAL CULTURAL RESOURCES

17-1: During the course of any ground disturbance activities, the applicant, or their agent, shall retain a professional Native American monitor(s). Ground disturbance activities shall include the following: excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, pounding posts, augering, backfilling, blasting, stripping topsoil or a similar activity. Monitoring of the project site during ground disturbance activities shall comply with the following:

a. The Project Applicant, or their agent, shall obtain a professional Native American monitor, or monitors, by contacting the Gabrieleno Band of Mission Indians. Prior to the issuance of a grading permit, evidence shall be provided to the Department of City Planning that monitor(s) have been obtained;

b. A monitor shall be secured for each grading unit. In the event that there are simultaneous grading units operating at the same time, there shall be one monitor per grading unit;

c. In the event that subsurface archaeological resources, human remains, or other tribal cultural resources are encountered during the course of ground disturbance activities, all such activities shall temporarily cease on the project site until the archaeological or other

tribal cultural resources are assessed and subsequent recommendations are determined by a qualified archaeologist. In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, including the required notification to the County Coroner and the Native American Heritage Commission;

d. In the event that subsurface resources are encountered during the course of ground disturbance activities, the qualified archaeologist on site shall specify a radius around where resources were encountered to protect such resources until the procedures and requirements set forth in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 have been fulfilled. Project activities may continue outside of the designated radius area.

e. Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC).

Enforcement Agency: Department of City Planning, Los Angeles Department of Building and Safety

Monitoring Agency: Department of City Planning

Monitoring Phase: Pre-construction, Construction

Monitoring Frequency: Periodically during ground-disturbing activities

Action Indicating Compliance: Issuance of a building permit

Regulatory Compliance Measures

In addition to the Mitigation Measures required of the project, and any proposed Project Design Features, the applicant shall also adhere to any applicable Regulatory Compliance Measures required by law. Listed below is a list of often required Regulatory Compliance Measures. Please note that requirements are determined on a case by case basis, and these are an example of the most often required Regulatory Compliance Measures.

AESTHETICS

- **Regulatory Compliance Measure RC-AE-3 (Vandalism)**: **Compliance with provisions of the Los Angeles Building Code.** The project shall comply with all applicable building code requirements, including the following:
    - Every building, structure, or portion thereof, shall be maintained in a safe and sanitary condition and good repair, and free from, debris, rubbish, garbage, trash, overgrown vegetation or other similar material, pursuant to Municipal Code Section 91.8104.
    - The exterior of all buildings and fences shall be free from graffiti when such graffiti is visible from a street or alley, pursuant to Municipal Code Section 91.8104.15.

- **Regulatory Compliance Measure RC-AE-4 (Signage): Compliance with provisions of the Los Angeles Building Code.** The project shall comply with the Los Angeles Municipal Code Section 91.6205, including on-site signage maximums and multiple temporary sign restrictions, as applicable.

- **Regulatory Compliance Measure RC-AE-5 (Signage on Construction Barriers): Compliance with provisions of the Los Angeles Building Code.** The project shall comply with the Los Angeles Municipal Code Section 91.6205, including but not limited to the following provisions:
    - The applicant shall affix or paint a plainly visible sign, on publically accessible portions of the construction barriers, with the following language: “POST NO BILLS”.
    - Such language shall appear at intervals of no less than 25 feet along the length of the publically accessible portions of the barrier.
    - The applicant shall be responsible for maintaining the visibility of the required signage and for maintaining the construction barrier free and clear of any unauthorized signs within 48 hours of occurrence.

AIR QUALITY

- **Regulatory Compliance Measure RC-AQ-1(Demolition, Grading and Construction Activities): Compliance with provisions of the SCAQMD District Rule 403.** The project shall comply with all applicable standards of the Southern

California Air Quality Management District, including the following provisions of District Rule 403:

- All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD District Rule 403. Wetting could reduce fugitive dust by as much as 50 percent.
- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.
- All dirt/soil loads shall be secured by trimming, watering or other appropriate means to prevent spillage and dust.
- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amount of dust.
- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Trucks having no current hauling activity shall not idle but be turned off.

- **Regulatory Compliance Measure RC-AQ-2:** In accordance with Sections 2485 in Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.

- **Regulatory Compliance Measure RC-AQ-3:** In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

- **Regulatory Compliance Measure RC-AQ-4:** The Project shall comply with South Coast Air Quality Management District Rule 1113 limiting the volatile organic compound content of architectural coatings.

- **Regulatory Compliance Measure RC-AQ-6:** New on-site facility nitrogen oxide emissions shall be minimized through the use of emission control measures (e.g., use of best available control technology for new combustion sources such as boilers and water heaters) as required by South Coast Air Quality Management District Regulation XIII, New Source Review.

- **Regulatory Compliance Measure RC-AQ-7 (Spray Painting): Compliance with provisions of the SCAQMD District Rule 403.** The project shall comply with all applicable rules of the Southern California Air Quality Management District, including the following:
  - All spray painting shall be conducted within an SCAQMD-approved spray paint booth featuring approved ventilation and air filtration system.
  - Prior to the issuance of a building permit, use of land, or change of use to permit spray painting, certification of compliance with SCAQMD air pollution regulations shall be submitted to the Department of Building and Safety.

CULTURAL RESOURCES

- **Regulatory Compliance Measure RC-CR-2 (Archaeological):** If archaeological resources are discovered during excavation, grading, or construction activities, work shall cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Personnel of the proposed Modified Project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the Project site. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2.
    - Distinctive features, finishes and construction techniques or examples of skilled craftsmanship which characterize an historic property shall be preserved.
    - Deteriorated historic features shall be repaired rather than replaced. Where the severity if deterioration requires replacement of a distinctive historic feature, the new feature shall match the old in design, color, texture, and other visual qualities, and where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
    - Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
    - Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
    - New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
    - New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

- **Regulatory Compliance Measure RC-CR-3 (Paleontological):** If paleontological resources are discovered during excavation, grading, or construction, the City of Los Angeles Department of Building and Safety shall be notified immediately, and all work shall cease in the area of the find until a qualified paleontologist evaluates the find. Construction activity may continue unimpeded on other portions of the Project site. The paleontologist shall determine the location, the time frame, and the extent to which any monitoring of earthmoving activities shall be required. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2.

- **Regulatory Compliance Measure CR-4 (Human Remains):** If human remains are encountered unexpectedly during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. In the event that human remains are discovered during excavation activities, the following procedure shall be observed:

    - Stop immediately and contact the County Coroner:

        1104 N. Mission Road

        Los Angeles, CA 90033

        323-343-0512 (8 a.m. to 5 p.m. Monday through Friday) or

        323-343-0714 (After Hours, Saturday, Sunday, and Holidays)

    If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC).

    - The NAHC will immediately notify the person it believes to be the most likely descendent of the deceased Native American.
    - The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
    - If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.

GEOLOGY AND SOILS

- **Regulatory Compliance Measure RC-GEO-1 (Seismic):** The design and construction of the project shall conform to the California Building Code seismic standards as approved by the Department of Building and Safety.

- **Regulatory Compliance Measure RC-GHG-1 (Green Building Code):** In accordance with the City of Los Angeles Green Building Code (Chapter IX, Article 9, of the Los Angeles Municipal Code), the Project shall comply with all applicable mandatory provisions of the 2013 Los Angeles Green Code and as it may be subsequently amended or modified.

HAZARDS AND HAZARDOUS MATERIALS

- **Regulatory Compliance Measure RC-HAZ-1: Explosion/Release (Existing Toxic/Hazardous Construction Materials)**

- (**Asbestos**) Prior to the issuance of any permit for the demolition or alteration of the existing structure(s), the applicant shall provide a letter to the Department of Building and Safety from a qualified asbestos abatement consultant indicating that no Asbestos-Containing Materials (ACM) are present in the building. If ACMs are found to be present, it will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 as well as all other applicable State and Federal rules and regulations.
- (**Lead Paint**) Prior to issuance of any permit for the demolition or alteration of the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Department of Building and Safety. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations.
- (**Polychlorinated Biphenyl – Commercial and Industrial Buildings**) Prior to issuance of a demolition permit, a polychlorinated biphenyl (PCB) abatement contractor shall conduct a survey of the project site to identify and assist with compliance with applicable state and federal rules and regulation governing PCB removal and disposal.

- **Regulatory Compliance Measure RC-HAZ-5 (Hazardous Materials Site):** Prior to the issuance of any use of land, grading, or building permit, the applicant shall obtain a sign-off from the Fire Department indicating that all on-site hazardous materials, including contamination of the soil and groundwater, have been suitably remediated, or that the proposed project will not impede proposed or on-going remediation measures.

HYDROLOGY AND WATER QUALITY

- **Regulatory Compliance Measure RC-WQ-1: National Pollutant Discharge Elimination System General Permit.** Prior to issuance of a grading permit, the Applicant shall obtain coverage under the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System No. CAS000002) (Construction General Permit) for Phase 1 of the proposed Modified Project. The Applicant shall provide the Waste Discharge Identification Number to the City of Los Angeles to demonstrate proof of coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan shall be prepared and implemented for the proposed Modified Project in compliance with the requirements of the Construction General Permit. The Storm Water Pollution Prevention Plan shall identify construction Best Management Practices to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in stormwater runoff as a result of construction activities.

- **Regulatory Compliance Measure RC-WQ-2: Dewatering.** If required, any dewatering activities during construction shall comply with the requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2008-0032, National Pollutant Discharge

Elimination System No. CAG994004) or subsequent permit. This will include submission of a Notice of Intent for coverage under the permit to the Los Angeles Regional Water Quality Control Board at least 45 days prior to the start of dewatering and compliance with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges.

- **Regulatory Compliance Measure RC-WQ-3: Low Impact Development Plan.** Prior to issuance of grading permits, the Applicant shall submit a Low Impact Development Plan and/or Standard Urban Stormwater Mitigation Plan to the City of Los Angeles Bureau of Sanitation Watershed Protection Division for review and approval. The Low Impact Development Plan and/or Standard Urban Stormwater Mitigation Plan shall be prepared consistent with the requirements of the Development Best Management Practices Handbook.

- **Regulatory Compliance Measure RC-WQ-4: Development Best Management Practices.** The Best Management Practices shall be designed to retain or treat the runoff from a storm event producing 0.75 inch of rainfall in a 24-hour period, in accordance with the Development Best Management Practices Handbook Part B Planning Activities. A signed certificate from a licensed civil engineer or licensed architect confirming that the proposed Best Management Practices meet this numerical threshold standard shall be provided.

NOISE

- **Regulatory Compliance Measure RC-NO-1 (Demolition, Grading, and Construction Activities):** The project shall comply with the City of Los Angeles Noise Ordinance No. 144,331 and 161,574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.

PUBLIC SERVICES

Schools

- **Regulatory Compliance Measure RC-PS-1 (Payment of School Development Fee)** Prior to issuance of a building permit, the General Manager of the City of Los Angeles, Department of Building and Safety, or designee, shall ensure that the Applicant has paid all applicable school facility development fees in accordance with California Government Code Section 65995.

PUBLIC UTILITIES AND SERVICE SYSTEMS

Water Supply

- **Regulatory Compliance Measure RC-WS-1 (Fire Water Flow)** The Project Applicant shall consult with the LADBS and LAFD to determine fire flow requirements for the Proposed Project, and will contact a Water Service Representative at the LADWP to order a SAR. This system hydraulic analysis will determine if existing LADWP water supply facilities can provide the proposed fire flow requirements of the Project. If water main or infrastructure upgrades are required, the Applicant would pay for such upgrades, which would be constructed by either the Applicant or LADWP.

- **Regulatory Compliance Measure RC-WS-2 (Green Building Code):** The Project shall implement all applicable mandatory measures within the LA Green Building Code that would have the effect of reducing the Project's water use.

- **Regulatory Compliance Measure RC-WS-4 (Landscape)** The Project shall comply with Ordinance No. 170,978 (Water Management Ordinance), which imposes numerous water conservation measures in landscape, installation, and maintenance (e.g., use drip irrigation and soak hoses in lieu of sprinklers to lower the amount of water lost to evaporation and overspray, set automatic sprinkler systems to irrigate during the early morning or evening hours to minimize water loss due to evaporation, and water less in the cooler months and during the rainy season).

Energy

- **Regulatory Compliance Measure RC-EN-1(Green Building Code):** The Project shall implement all applicable mandatory measures within the LA Green Building Code that would have the effect of reducing the Project's energy use.

Solid Waste

- **Regulatory Compliance Measure RC-SW-1 (Designated Recycling Area)** In compliance with Los Angeles Municipal Code, the proposed Modified Project shall provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

- **Regulatory Compliance Measure RC-SW-2** (**Construction Waste Recycling)** In order to meet the diversion goals of the California Integrated Waste Management Act and the City of Los Angeles, which will total 70 percent by 2013, the Applicant shall salvage and recycle construction and demolition materials to ensure that a minimum of 70 percent of construction-related solid waste that can be recycled is diverted from the waste stream to be landfilled. Solid waste diversion would be accomplished though the on-site separation of materials and/or by contracting with a solid waste disposal facility that can guarantee a minimum diversion rate of 70 percent. In compliance with the Los Angeles Municipal Code, the General Contractor shall utilize solid waste haulers, contractors, and recyclers who have obtained an

Assembly Bill (AB) 939 Compliance Permit from the City of Los Angeles Bureau of Sanitation.

- **Regulatory Compliance Measure RC-SW-3 (Commercial/Multifamily Mandatory Recycling)** In compliance with AB341, recycling bins shall be provided at appropriate locations to promote recycling of paper, metal, glass and other recyclable material. These bins shall be emptied and recycled accordingly as a part of the Proposed Project's regular solid waste disposal program. The Project Applicant shall only contract for waste disposal services with a company that recycles solid waste in compliance with AB341.