Appendices

Appendix A

Air Quality Technical Report

AIR QUALITY REPORT

FOR THE

ULYSSES S. GRANT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

CITY OF LOS ANGELES
LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

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October 2017

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Prepared by: _____ Date: OCTOBER 11, 2017
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ATTACHMENTS

Attachment 1 CalEEMod Output

1.0 INTRODUCTION

1.1 Context

This air quality technical study was prepared by UltraSystems to support an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Ulysses S. Grant High School Comprehensive Modernization Project (Project) in the city of Los Angeles, California. The Project includes various renovations, modernizations, and reconfigurations throughout the campus including demolition of existing facilities, construction of new facilities, site upgrades and accessibility improvements on a 32.4-acre site. Construction activities are anticipated begin in early January 2019 and to be completed in late December 2021.

Ongoing master planning activities and facility site assessments conducted for Los Angeles Unified School District's (LAUSD or District) facilities over the last several years have identified school sites throughout the District that exhibit critical physical conditions. The School Upgrade Program (SUP) implemented by the LAUSD outlines a series of capital improvements intended to rehabilitate and modernize these schools so they are safe, healthy and functional places to learn.

The LAUSD prepared an Environmental Impact Report (SCH No. 2013111046) at the program level of detail to evaluate the direct and indirect environmental effects of the SUP program. The SUP Program Environmental Impact Report (Program EIR [PEIR]) was certified as adequate by the LAUSD Board October 2015. As provided in § 15168 of the State California Environmental Quality Act (CEQA) Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR provides the LAUSD (as lead agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures, and provides the LAUSD with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.

Subsequent activities within the program are evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope, and additional environmental documents may not be required.[1] When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate any feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities.[2]

1.2 PEIR Air Quality Summary

Table 1.2-1 summarizes the PEIR's conclusions regarding the air quality impacts of the SUP.

According to the PEIR, projects implemented under the SUP are anticipated to have less than significant and potentially significant impacts on air quality in the LAUSD region. However, the project-specific analysis provided in **Section 4.3.2.2** below concludes that implementation of the Ulysses S. Grant High School Project would have either less than significant impacts or no impacts on the surrounding community and the school site.

1 14 CCR § 15168(c).
2 14 CCR § 5168(c)(3)

Table 1.2-1
AIR QUALITY IMPACTS IDENTIFIED IN THE PEIR

No.	Environmental Threshold	Level of Impact Significance	Potential Impacts Identified in the PEIR	Applicable SCAs	Mitigation Measures
1	Conflict with or obstruct implementation of the applicable air quality plan.	Less than Significant	Impact 5.3-1: SUP-related projects would be consistent with the applicable air quality management plan.	SC-AQ-1	No mitigation measures are required.
2	Generate short-term air pollutant emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially significant and unavoidable	Impact 5.3-2: Construction activities may generate short-term emissions that exceed the South Coast Air Quality Management District's regional significance thresholds and cumulatively contribute to the South Coast Air Basin nonattainment designations.	SC-AQ-2 SC-AQ-3	No feasible mitigation measures are available that would further reduce short-term emissions and impacts to regional air quality.
3	Generate long-term air pollutant emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than Significant	Impact 5.3-3: SUP-related projects would not generate long-term emissions that would exceed the South Coast Air Quality Management District's regional significance thresholds and would not cumulatively contribute to the South Coast Air Basin nonattainment designations.	SC-AQ-2 SC-AQ-3	No mitigation measures are required.
4	Expose sensitive receptors to substantial pollutant concentrations.	Potentially significant and unavoidable	Impact 5.3-4: Site-specific SUP projects may generate short-term (construction) emissions that exceed South Coast Air Quality Management District's localized significance thresholds and expose sensitive receptors to substantial pollutant concentrations.	SC-AQ-4	No feasible mitigation measures are available that would further reduce potentially significant short-term localized emission impacts.
5	Expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	Impact 5.3-5: Operation of SUP projects would not expose sensitive receptors to substantial pollutant concentrations.	SC-AQ-4	No mitigation measures are required.
6	Create objectionable odors affecting a substantial number of people.	Less than Significant	Impact 5.3-6: Implementation of SUP-related projects would not create objectionable odors.	SC-AQ-5	No mitigation measures are required.
7	Expose sensitive receptors in proximity to freeways and major roadways to substantial pollutant concentrations	Less than Significant	Impact 5.3-7: SUP-related projects would not expose sensitive receptors in proximity to freeways and major roadways to substantial pollutant concentrations.	SC-AQ-6 SC-AQ-7	No mitigation measures are required.

1.3 Outline of This Report

The purpose of this report is to provide a detailed technical air quality analysis of the Ulysses S. Grant High School Comprehensive Modernization Project. The analysis was prepared in accordance with the *CEQA Air Quality Handbook* prepared by the South Coast Air Quality Management District (SCAQMD, 1993).[3] Regional climate and meteorology, air quality monitoring data, and the area's attainment status with respect to criteria air pollutants are discussed. The report includes a description of federal, state and local agencies that govern air quality and climate change, and their pertinent statutes and regulations. It identifies potential impacts of air pollutants of concern for this Project, including criteria pollutants (i.e., pollutants for which National Ambient Air Quality Standards [NAAQS] have been established by the U.S. Environmental Protection Agency, and their precursors) and mobile source air toxics. Impacts of greenhouse gas (GHG) emissions are evaluated in **Section 4.7** of the Initial Study/Mitigated Negative Declaration for the Project. The report describes the analytical methodologies and assumptions used for this study as well as the results of these analyses and proposed mitigation measures.

3 Updates to the CEQA Air Quality Handbook are at http://sfprod.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

2.0 PROJECT DESCRIPTION

2.1 Introduction

As part of the District's SUP,[4] the District plans to implement a Comprehensive Modernization Project at Ulysses S. Grant (Grant) High School in Los Angeles, California. A campus-wide survey of the Grant High School campus found existing structures and mechanical systems to be outdated, requiring rehabilitation or modernization to meet current needs. The campus was originally constructed in 1959. To provide additional capacity for the booming suburban population, portable buildings were added from 1959 to 1964 in the northwest corner of the school site. Additional permanent buildings were constructed in 1964. An additional phase of construction in the southwest corner of the campus occurred from 1987 to 1991. More recently, additional portable classrooms were added to the southeast corner of the campus encroaching on the parking lot in this area of the campus.

The proposed Project would address the deficiencies identified in the campus-wide survey through demolition of structures and systems that are beyond repair; construction of new buildings; improvements to the existing campus building and facilities; upgrades to infrastructure and utilities; and various upgrades to comply with the Americans with Disabilities Act (ADA:42 U.S. Code Chapter 126).

2.2 Project Location

Grant High School is located on a 32.4-acre site at 13000 Oxnard Street in the city of Los Angeles, California. **Figures 2.2-1** and **2.2-2** show the site in its regional and local contexts, respectively. Regional access to the campus is provided by Oxnard Street, which intersects California State Route 170 (Hollywood Freeway) approximately one mile to the northeast, while local access is provided by a series of residential collectors including Lancer Lane to the east, Hatteras Street to the south, and Ethel Avenue to the west.

2.3 Campus Setting

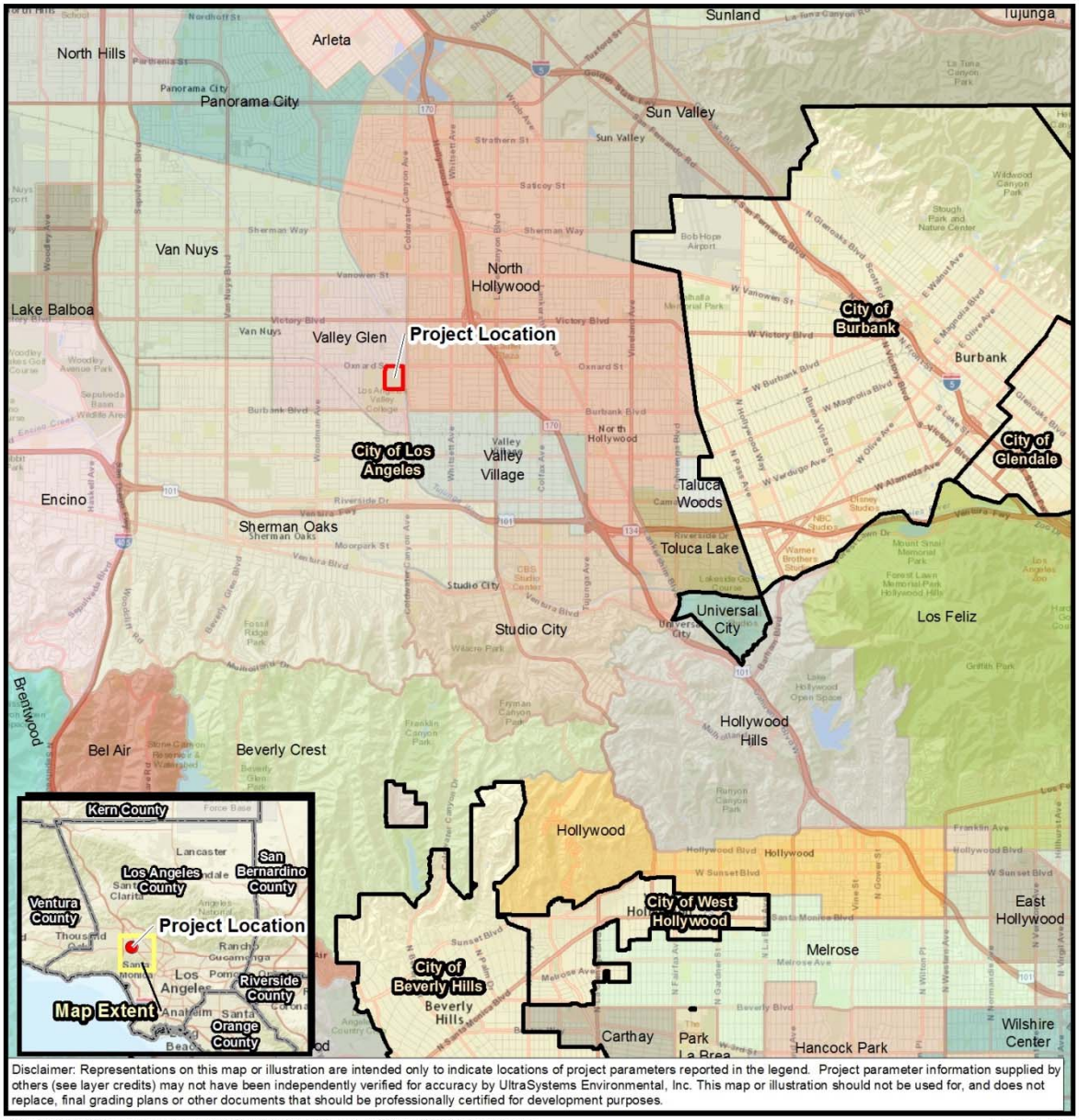
The campus is organized around five Small Learning Communities and also houses a Communications Technology Magnet Center, the Jack London Continuation High School and a Community Day School. **Figure 2.3-1** shows a site plan of the existing facilities. The campus contains 53 buildings, of which 28 are permanent and 25 are portable classrooms; the school has a combined 77 classrooms with capacity to accommodate 2,714 students.

The core campus is composed of one- and two-story permanent buildings clad in brick, dating to 1958 and 1959. The permanent buildings are located around a rectangular lawn, mostly in the northeast quadrant of the campus and include classrooms, administration, library, gymnasium, food service/multipurpose room, operations and maintenance and a lunch shelter. Clusters of one-story portable buildings dating from 1935 to 1991 are located in the northwest and southeast corners of the campus. Other facilities include a garden plot in the northwest corner of the campus; a track and softball field on the west side; and an asphalt playground, tennis courts, and practice field south of the gym. Several mature trees with invasive roots are located on campus. Mature trees and well-kept landscaping within the quad and around the perimeter of the campus enhance the appearance of the school.

4 LAUSD. 2015. Program EIR for the School Upgrade Program. Available at: http://achieve.lausd.net/ceqa.

Main entry to the campus is provided from Lancer Lane located on the east side of the campus. Parking is available along the west side of Lancer Lane. School parking lots are located in the southeast corner with access from Hatteras Street, and in the northern part of the campus, along Oxnard Boulevard.

Figure 2.2-1
REGIONAL LOCATION OF PROJECT



Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6013_LAUSD_Grant\MXDs\IS_MND\6013_Grant_2.0_Project_Vicinity_2016_08_31.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community; LA County Assessor, 2015-2016; LA County, 2013/2015; UltraSystems Environmental, Inc., 2016

August 31, 2016

Grant High School Comprehensive Modernization Project

Project Vicinity

Scale 1:95,040

N

Legend

Grant High School Parcel Boundary

City Boundary

0 0.75 1.5 Miles

0 0.75 1.5 Kilometers

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Figure 2.2-2
PROJECT LOCATION

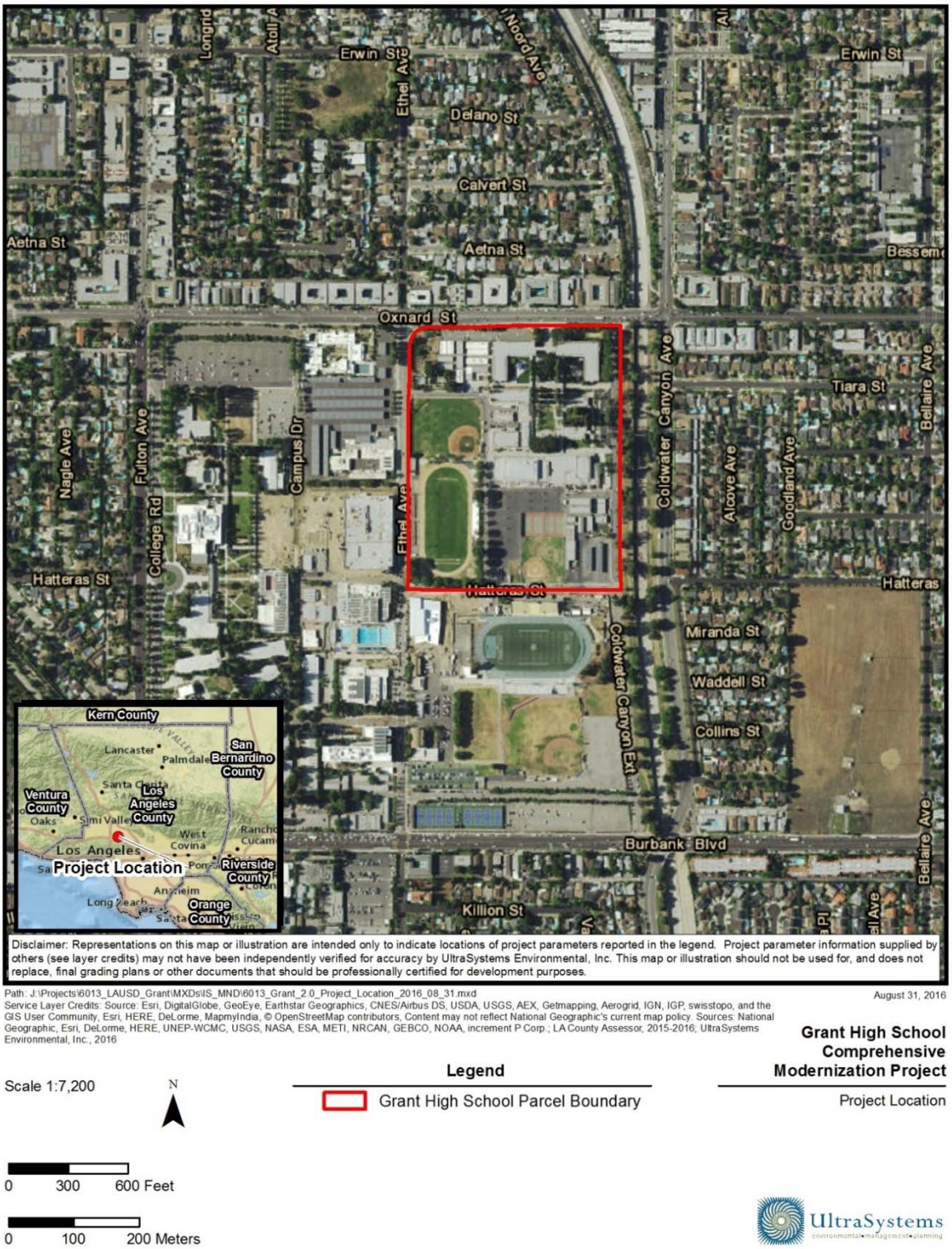
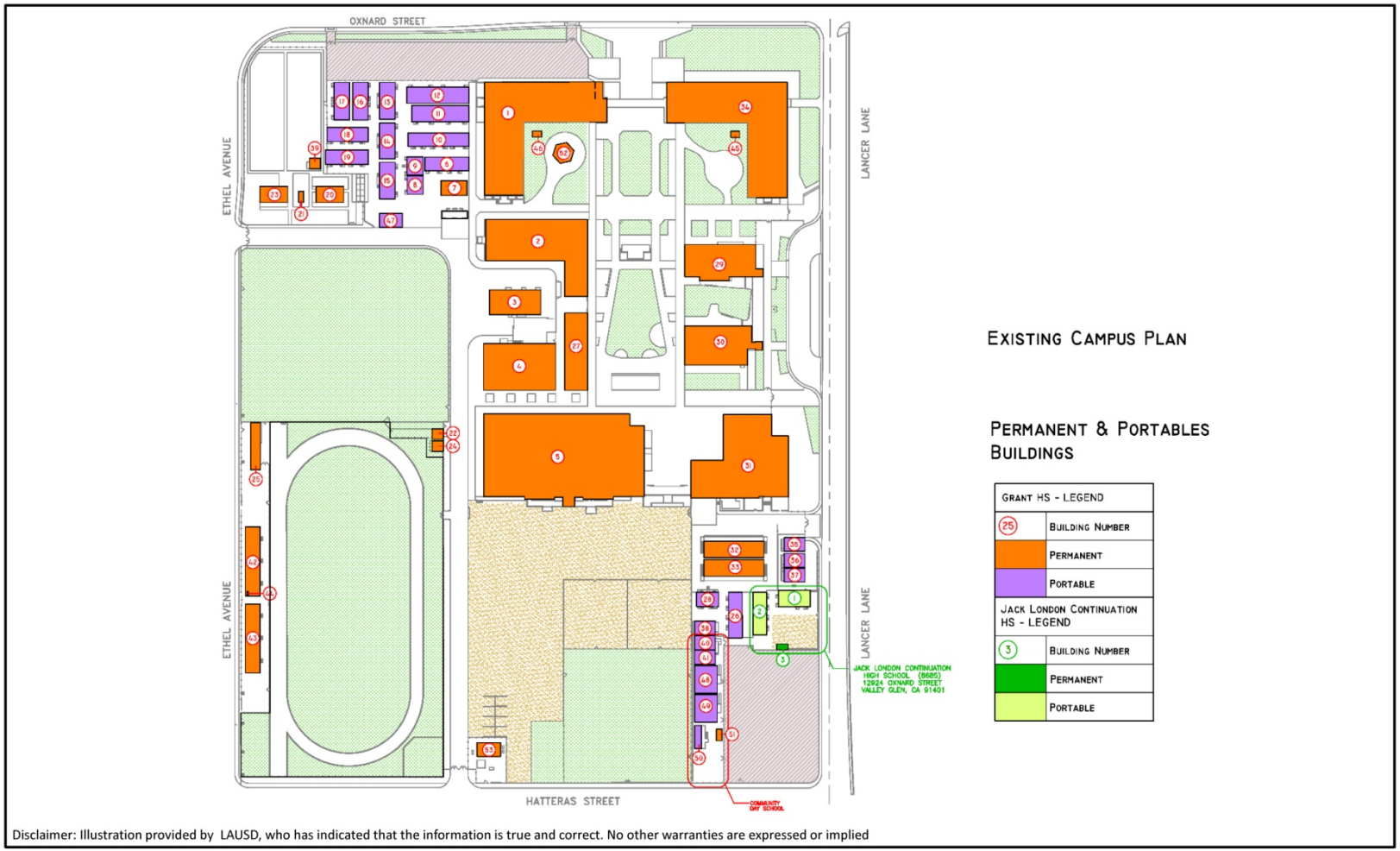


Figure 2.3-1
SITE PLAN



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Source: LAUSD. September 8, 2011

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Grant High School
Comprehensive Modernization Project
Existing Campus Plan

2.4 Description of Proposed Project

2.4.1 Purpose and Objectives

The purpose of the Grant High School Comprehensive Modernization Project (Project) is to provide facilities that are safe, secure, and aligned with the instructional program of Grant High School. The Project would not result in an increase in capacity or enrollment at the Grant High School campus. The Project would be completed under LAUSD's SUP. The goals of the Project are consistent with the SUP's goal to build, modernize, and repair school facilities to improve student health, safety, and educational quality.[5] The Project is designed to address the most critical physical concerns of the buildings and grounds at the campus, while providing renovations, modernizations, and reconfigurations that are consistent with the Project definition for Grant High School.

2.4.2 Planned Improvements

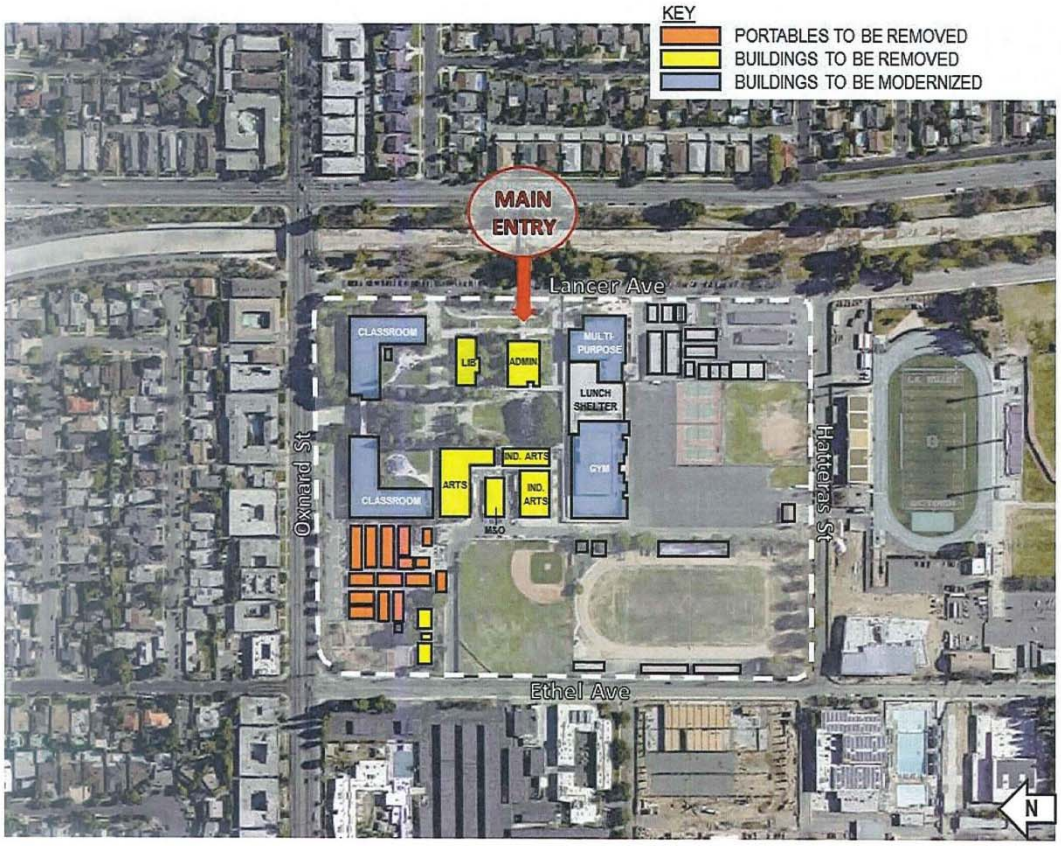
The major Project components include (1) demolition of various buildings, (2) construction of new buildings, (3) upgrades to facilities throughout the campus, and (4) improvements to comply with federal, State and local facilities requirements**. Figure 2.4-1** shows a site plan of the Project improvements, while **Figure 2.4-2** shows the site plan at the end of the modernization program. **Table 2.4-1** and **Table 2.4-2** summarize the planned improvements to the campus. Each activity is described in greater detail following the table.

Table 2.4-1
SUMMARY OF PROPOSED CHANGES TO CAMPUS

Activity	Number of Classrooms	Square Footage
Demolition	(39)	(87,298)
New	31	88,271
Remodeled	49	142,081
Existing /No Change	13	58,880
Total Post Project	**93**	**289,232**
Total (Lost) / Gained	**(8)**	**973**

5 LAUSD's School Upgrade Program, Certified Program Environmental Impact Report, November 10, 2015.

Figure 2.4-1
PLANNED PROJECT ACTIONS



Proposed Scope of Work

- **Building Upgrades**
  - Gymnasium
  - Classroom Buildings
  - Multi-Purpose Building
- **New Building(s) to be Constructed**
  - Classrooms
  - Administration/Library Building
- **Site Work**
  - Parking
  - Student drop off
  - Site Infrastructure

Disclaimer: Illustration provided by LAUSD, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: LAUSD. August 15, 2016.

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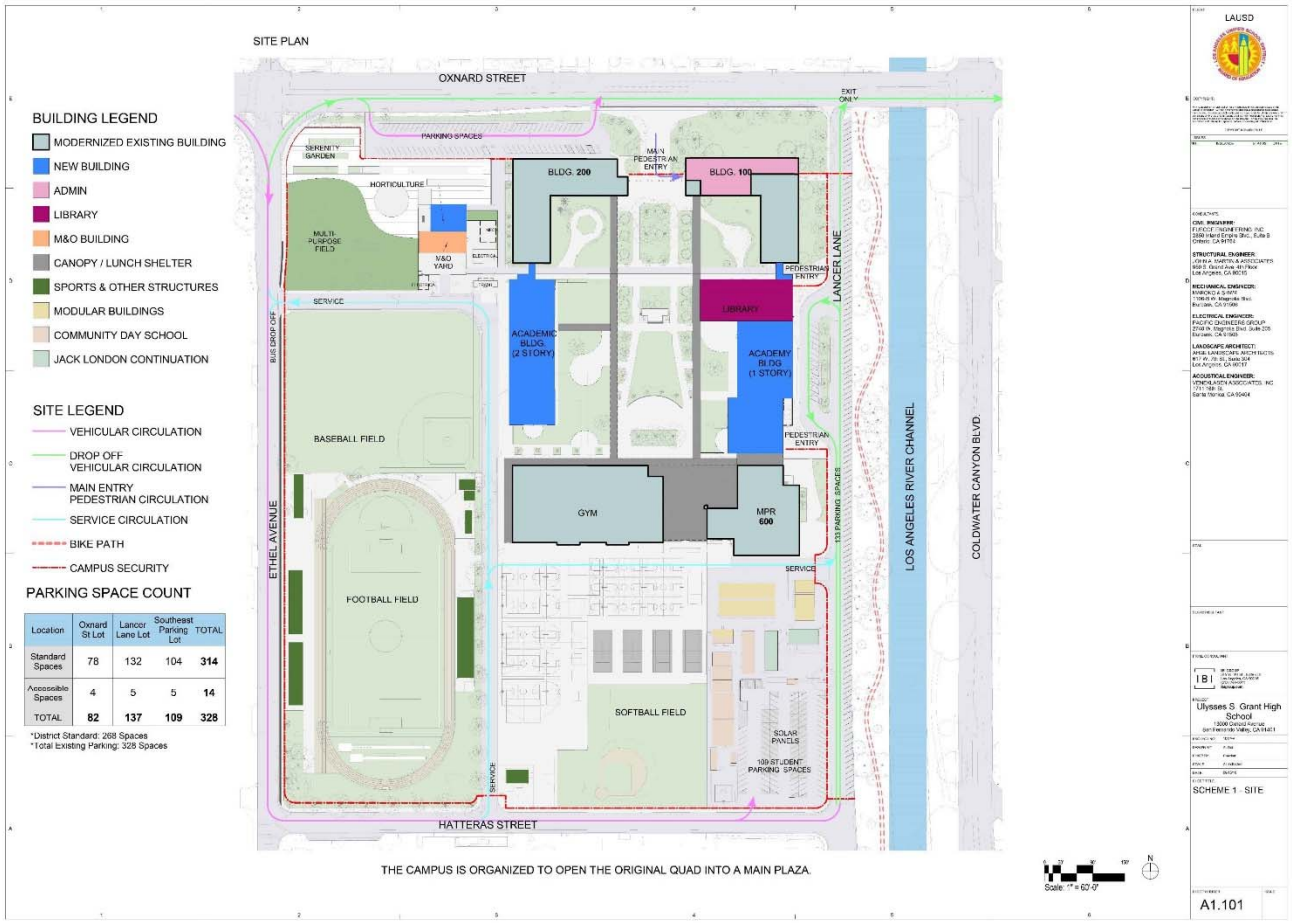
Grant High School
Comprehensive Modernization Project
Site Plan

Figure 2.4-2
SITE PLAN AT END OF PROJECT



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Source: IBI Group. 09/15/16

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Grant High School
Comprehensive Modernization Project

Proposed Site

Table 2.4-2
SUMMARY OF PROJECT IMPROVEMENTS

Building Number	Building Name/Location Description	Demolition Square Feet	Modernization Square Feet	New Square Feet	Existing (No Change) Square Feet
1	Classroom Building West		48,023		
2	Art Building	17,424			
3	Utility Building	4,020			
4	Industrial Arts Building	12,662			
5	Physical Education Building		24,581		18,201
6	Two/Three Unit Relocatable	1,824			
7	Transformer Vault	1,196			
8	Single Unit Relocatable	880			
9	Sanitary Relocatable Building	888			
10	Two/Three Unit Relocatable	2,592			
11	Two/Three Unit Relocatable	2,970			
12	Two/Three Unit Relocatable	3,202			
13	Two/Three Unit Relocatable	1,877			
14	Two/Three Unit Relocatable	1,877			
15	Two/Three Unit Relocatable	1,877			
16	Two/Three Unit Relocatable	1,877			
17	Two/Three Unit Relocatable	1,877			
18	Two/Three Unit Relocatable	1,728			
19	Two/Three Unit Relocatable	1,728			
20	Lath House	1,400			
21	Greenhouse	160			
22	Storage Unit 1				360
23	Agricultural Classroom Building	1,500			
24	Storage Unit 2				360
25	Sanitary Building				1,512
27	Industrial Arts Building	5,460			
28	Sanitary Relocatable Building				912
29	Library Building	7,958			
30	Administrative Building	8,111			
31	Multi-purpose Building		20,997		6,473
32	Classroom Building				6,518
33	Classroom Building				6,518
34	New Central Administration / Health Unit / Career Center / School Police (Existing Classroom Building East)		48,480		

Building Number	Building Name/Location Description	Demolition Square Feet	Modernization Square Feet	New Square Feet	Existing (No Change) Square Feet
35	Single Unit Modular				896
36	Single Unit Modular				896
37	Single Unit Modular				896
39	Storage Unit 3				360
42	Bleachers 1				3,300
43	Bleachers 2				3,300
44	Announcer's Booth				44
45	Electrical Equipment Room 1				194
46	Electrical Equipment Room 2				183
47	Single Classroom Relocatable	960			
52	Shade Structure				937
53	Utility Building				983
54	Bleachers				5,325
55	Sanitary Building				488
56	Storage				224
57	Platform	666			
58	Platform	584			
	Instructional Space (General and Specialized)			68,387	
	Support Services (Library / Media Center, Textbook Room, Support Spaces)			16,378	
	Maintenance and Operations			3,506	
TOTAL		**87,298**	**142,081**	**88,271**	**58,880**

Source: LAUSD, Ulysses S. Grant High School: Comprehensive Modernization Project – Space Program, 2017.

2.4.2.1 Demolition

The Project would include demolition of 12 existing permanent buildings and structures totaling approximately 61,141 square feet of floor space and demolition/removal of 14 portable buildings containing approximately 26,157 square feet of classroom space, for a total demolition/removal of approximately 87,298 square feet. The Project also includes the remodeling of approximately 142,081 square feet of existing building space.

Facilities to be removed include the following:

- Administration building.
- Library building.
- Arts building.
- Two industrial arts classroom buildings.
- Agricultural/horticultural classroom building and auxiliary structures.
- Utility/support buildings and structures.

- Approximately 22 classrooms located in relocatable buildings

2.4.2.2 New Construction and Renovations

As shown in **Figure 2.4-2**, in the northwest corner of the Project site, the existing portable buildings will be replaced with a new multi-purpose field and the agricultural and maintenance and operations buildings. The existing buildings in the middle of the main quad will be replaced with new buildings, organizing the quad into a main plaza for the Project site. Administrative uses will be moved to the renovated Building #100, placing these uses at the main entrance to the campus.

The Project would include modernization and/or upgrades to the following facilities:

- Approximately 49 general, science and specialty classrooms, and support spaces.
- Classroom building (#100) renovated to include new uses: Central Administration, Health Unit, Career Center, and School Police. Also, seismic retrofit, and electrical and HVAC systems upgrade.
- Classroom building (#200): seismic retrofit, and electrical and HVAC systems upgrade.
- Gymnasium: seismic retrofit, HVAC and fire alarm systems upgrade, modernization of multiple existing uses.
- Multi-purpose building: seismic retrofit, HVAC system upgrade, and modernization of multiple existing uses including Grant Hall.
- Agricultural/horticultural area: landscape and utility improvements.

2.4.2.3 Infrastructure Upgrades

The Project would also include the following site upgrades:

- Upgrades to site-wide infrastructure, including sanitary sewer, water, and electrical utilities.
- Various site-wide upgrades to remove identified and prioritized barriers to program accessibility per the Americans with Disabilities Act (42 U.S. Code Chapter 126).
- Upgrades to landscape, hardscape, and exterior paint.

2.4.2.4 Updates for Regulatory Compliance

The project includes various actions to ensure that Grant High School complies with various federal, state and local statutory and regulatory requirements. These include improvements required by the Americans with Disabilities Act (42 U.S. Code Chapter 126), California Department of General Services, Division of the State Architect, Department of Toxic Substances Control, Office of the Independent Monitor, and Standard Conditions of Approval of the PEIR.[6]

2.4.3 Access, Circulation, and Parking

The Project would result in reconfiguration of some of the access points throughout the campus. Currently, Lancer Lane provides two-way traffic circulation with limited access from Oxnard Street. Access is restricted to inbound and outbound right turns. However, existing traffic currently makes illegal inbound and outbound left-turns, which presents a safety hazard due to the proximity of the intersection to Coldwater Canyon Boulevard. Lancer Lane will be reconfigured for northbound traffic only, with outbound right-turns permitted onto Oxnard Street. In addition, an internal vehicular

6 LAUSD. 2015. Program EIR for the School Upgrade Program. Available at: http://achieve.lausd.net/ceqa.

right-of-way would be provided through the center of the campus, in a counter-clockwise direction to allow for emergency vehicle access. All other existing driveways and parking lots would remain in place. Vehicular access and parking would be designed to comply with Section 2.3, Vehicular Access and Parking of the School Design Guide, January 2014.

2.4.4 Landscaping

The Project landscaping will be designed to be compatible with the campus and to incorporate, to the extent possible, native plants and vegetation that are appropriate for the campus and the Southern California setting. All plants and vegetation proposed for the campus will be selected from the District's approved plant list or will be approved by the District prior to being placed on the campus.

2.4.5 Site Security and Safety

Currently, the Grant High School campus is mostly secured by fencing along the boundaries. Following the Project, the campus would remain secured, with the majority of the campus being fenced or gated. The Project may install additional fences surrounding new parking lots. Additionally, security lighting would be installed throughout the campus to alleviate safety concerns.

2.4.6 Sustainability Features

The Project's new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. All new construction would at a minimum exceed by 10% or more, the energy efficiency standards under California Title 24, Part 6 energy efficiency standards consistent with LAUSD standard conditions of approval (SC-GHG-5).

2.4.7 Construction Schedule

The Project would be executed through a design-build contract. Preconstruction activities are underway and are expected to be completed in the third quarter of 2018. Construction activities (including demolition) will occur in two 18-month sequential, non-overlapping phases. **Table 2.4-3** shows how each 18-month phase will be divided into four sequential subphases. The only subphase that may overlap another subphase is expected to be asphalt paving and offsite street work. The table also shows the anticipated starting and ending dates for the two main phases. The schedule is discussed further in **Section 4.3.1**.

Table 2.4-3
CONSTRUCTION PHASES AND SUBPHASES

Construction Phase and Subphase	No. of Months	Start	End
PHASE 1	18	January 2019	June 2020
Demolition/Interim Housing/Building Interior Modernization	2	January 2019	March 2019
Site Preparation/Modernization	2	March 2019	May 2019
Building Construction/Modernization	12	May 2019	May 2020
Asphalt Paving and Offsite Street Work	2	May 2020	June 2020
Architectural Coatings	1	June 2020	July 2020
PHASE 2	18	July 2020	January 2022
Demolition/Interim Housing/Building Interior Modernization	2	July 2020	September 2020
Site Preparation/Modernization	2	September 2020	November 2020
Building Construction/Modernization	12	November 2020	November 2021
Architectural Coatings	1	October 2021	November 2021
Asphalt Paving and Offsite Street Work	2	November 2021	January 2022

3.0 UPDATED AND PROJECT-SPECIFIC EXISTING CONDITIONS

3.1 Existing Air Quality

Air quality is affected by both the rate and location of pollutant emissions, and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The Project site is located in the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles County, most of Riverside County, and the western portion of San Bernardino County - including some portions of what was previously known as the Southeast Desert Air Basin. The distinctive climate of the SCAB is determined by its terrain and geographic location. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around its remaining perimeter. The general 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 usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. An upper layer of dry air that warms as it descends characterizes high-pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located. This upper layer restricts the mobility of cooler marine-influenced air near the ground surface and results in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 mph, smog potential is greatly reduced (SCAQMD, 1993).

The annual average high and low temperatures, as recorded at the North Hollywood Station (two miles southeast of the proposed Project site, at 34.16667°N, -118.38333°E), are 76.2 and 47.7 degrees Fahrenheit (°F), respectively. Average winter (December, January, and February) high and low temperatures are approximately 66.8°F and 39.9°F and average summer (June, July, and August) high and low temperatures are approximately 85.0°F and 55.9°F.[7] The closest precipitation data are recorded at the Van Nuys FC15A Station (1.8 miles northwest of the proposed Project site, at 34.18333°N, -118.45°E). The annual average of total precipitation is approximately 16.03 inches, which occurs mostly during the winter and relatively infrequently during the summer. Monthly precipitation averages approximately 3.150 inches during the winter (December, January, and February), approximately 1.36 inches during the spring (March, April, and May), approximately 0.76 inch during the fall (September, October, and November), and approximately 0.07 inch during the summer (June, July, and August).[8] Winds in the Basin are generally light, tempered by afternoon sea breezes. Severe weather is uncommon in the Basin, but strong easterly winds known as the Santa

7 Western Regional Climate Center. "Western U.S. Climate Historical Summaries." Web site. Available at: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6256. Visited February 15, 2017.

8 http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9260. Visited February 15, 2017.

Ana winds can reach 25 to 35 miles per hour below the passes and canyons. During the spring and summer months, air pollution is carried out of the region through mountain passes in wind currents or is lifted by the warm vertical currents produced by the heating of the mountain slopes. From the late summer through the winter months, because of the average lower wind speeds and temperatures in the proposed Project area and its vicinity, air contaminants do not readily disperse, thus trapping air pollution in the area.

The SCAQMD has divided the Basin into source receptor areas (SRAs), based on similar meteorological and topographical features. The proposed Project site is located in the SCAQMD's East San Fernando Valley SRA (SRA 7). The most representative station of the site is the Reseda Station, which is located at 18330 Gault Street, Reseda, CA, 91702. This station is 6.9 miles northwest of the Project site. The Reseda Station monitors $PM_{2.5}$, NO_2 and O_3. The nearest air quality monitoring station that records PM_{10}, is the Los Angeles North Main Street Station at 1630 North Main Street, Los Angeles, CA 90012, which is 13.25 miles southeast of the Project site. The SCAQMD's SRA 7 station measures CO[9]. No station within a reasonable distance measures SO_2. The ambient air quality data in the proposed Project vicinity as recorded at these stations for 2013 to 2015 and the applicable federal and state standards are shown in **Table 3.1-1**.

9 Personal communication from Jason Low, South Coast Air Quality Management District, Diamond Bar, CA to Sloane Seferyn, UltraSystems Environmental, Irvine, CA, February 15, 2017. The SCAQMD's East San Fernando Valley SRA (SRA 7) station data were obtained from the Reseda, Los Angeles-North Main Street, and Santa Clarita stations. The Burbank station is currently closed down.

Table 3.1-1
AMBIENT AIR QUALITY MONITORING DATA

Air Pollutant	Standard/Exceedance	Year		
		2013	2014	2015
Carbon Monoxide (CO)	Year Coverage	91.7%	43%[b]	ND[a]
	Max. 1-hour Concentration (ppm)	ND	3[b]	ND
	Max. 8-hour Concentration (ppm)	2.4	3[b]	ND
	# Days > Federal 1-hour Std. of 35 ppm	ND	ND	ND
	# Days > Federal 8-hour Std. of 9 ppm	ND	ND	ND
	# Days > California 8-hour Std. of 9.0 ppm	ND	ND	ND
Ozone (O_3)	Year Coverage	95%	95%	96%
	Max. 1-hour Concentration (ppm)	0.124	0.116	0.119
	Max. 8-hour Concentration (ppm)	0.092	0.092	0.094
	# Days > Federal 8-hour Std. of 0.075 ppm	20	27	32
	# Days > California 1-hour Std. of 0.09 ppm	0	0	0
	# Days > California 8-hour Std. of 0.07 ppm	21	31	34
Nitrogen Dioxide (NO_2)	Year Coverage	65%	79%	96%
	Max. 1-hour Concentration (ppb)	ND	ND	ND
	Annual Average (ppb)	ND	ND	13
	# Days > California 1-hour Std. of 0.18 ppm	0	0	0
Sulfur Dioxide (SO_2)	Year Coverage	ND	ND	ND
	Max. 24-hour Concentration (ppb)	ND	ND	ND
	Annual Average (ppm)	ND	ND	ND
	# Days > California 24-hour Std. of 0.04 ppm	ND	ND	ND
Respirable Particulate Matter (PM_{10})	Year Coverage	97%	92%	95%
	Max. 24-hour Concentration (µg/m³)	57	66	73
	#Days > Fed. 24-hour Std. of 150 µg/m³	0	0	0
	#Days > California 24-hour Std. of 50 µg/m³	21.4	18.7	13.8
	Annual Average (µg/m³)	29.5	30.6	27.1
Fine Particulate Matter ($PM_{2.5}$)	Year Coverage	98%	63%	88%
	Max. 24-hour Concentration (µg/m³)	41.8	27.2	36.8
	State Annual Average (µg/m³)	9.8	ND	ND
	#Days > Fed. 24-hour Std. of 35 µg/m³	3.0	ND	3.6
	Federal Annual Average (µg/m³)	9.8	ND	8.8

Sources:
http://www.arb.ca.gov/adam/select8/sc8start.php. Accessed February 15, 2017.
https://www.arb.ca.gov/adam/trends/trends1.php. Accessed February 15, 2017.
https://www.arb.ca.gov/adam/topfour/topfourdisplay.php. Accessed February 15, 2017.
http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year. Accessed February 15, 2017.

[a]ND – There were insufficient (or no) data available to determine the value.
[b]South Coast Air Quality District incomplete data.

3.2 Updated Regulatory Setting

3.2.1 Pollutants of Concern

Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and an ambient air quality standard has been established by the U.S. Environmental Protection Agency (EPA) and/or the California Air Resources Board (ARB). The criteria air pollutants of concern are nitrogen dioxide (NO_2), carbon monoxide, particulate matter, sulfur dioxide, lead, and ozone, and their precursors. Since the proposed Project would not generate appreciable sulfur dioxide (SO_2) or

lead (Pb) emissions,[10] it is not necessary for the analysis to include those two pollutants. Presented below are the air pollutants of concern. Their descriptions and known health effects can be found in Section 5 of the Final PEIR.[11]

- Nitrogen oxides (NO_x)
- Carbon monoxide (CO)
- Particulate matter (PM)
- Reactive organic gases (ROG)
- Ozone (O_3)

3.2.2 Applicable Air Quality Regulations

Federal, California and regional air quality regulations are discussed in detail in the PEIR.[12] Inasmuch as no changes that would affect the air quality analysis for the Ulysses S. Grant High School Comprehensive Modernization Project have been made since the PEIR was adopted, the regulations will not be discussed here.

3.2.3 Air Quality Plans

The SCAQMD is required to produce plans to show how air quality will be improved in the region. The California Clean Air Act (CCAA) requires that these plans be updated triennially to incorporate the most recent available technical information.[13] A multi-level partnership of governmental agencies at the federal, state, regional, and local levels implement the programs contained in these plans. Agencies involved include the EPA, ARB, local governments, Southern California Association of Governments (SCAG), and SCAQMD. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. The SCAQMD updates its AQMP every three years. The 2012 AQMP, which is the latest, was adopted by the SCAQMD Board on December 6, 2012 and submitted to the ARB and the EPA for concurrent review on December 20, 2012 (Wallerstein 2012). After the submittal, the SCAQMD adopted Amendment IND-01 to the 2012 AQMP; this control measure applies to emissions from sources associated with the Port of Los Angeles and the Port of Long Beach.

The 2012 AQMP identifies control measures needed to demonstrate attainment with the federal 24-hour standard for $PM_{2.5}$ by 2014 in the South Coast Air Basin. In addition, the 2012 AQMP provides updates on progress towards meeting the 8-hour ozone standard for 2023, an attainment demonstration for the revoked 1-hour ozone standard, a vehicle miles traveled (VMT) offset demonstration for ozone standards, and a report on the health effects of $PM_{2.5}$.

On January 25, 2013, the ARB approved the South Coast 2012 AQMP as an amendment to the State Implementation Plan (SIP) (ARB 2013).[14] On February 13, 2013, the ARB submitted the approved plan to the EPA (Goldstene 2013).[15] On August 13, 2014, the EPA approved the California SIP's plan

10 Sulfur dioxide emissions will be about 0.05 pound per day during construction and about 0.06 pound per day during operations.
11 PEIR, pp. 5.3-6 through 5.3-9.
12 PEIR, pp. 5.3-2 through 5.3-15.
13 CCAA of 1988.
14 http://www.aqmd.gov/aqmp/2012aqmp/Final/CARB-Resolution.pdf.
15 http://www.arb.ca.gov/planning/sip/planarea/2012%20AQMP%20Submittal%20Letter%20to%20U.S.%20EPA.pdf.

for attainment of the 1-hour ozone standard and the VMT emissions offset demonstration for the 1-hour and 1997 8-hour ozone standards.[16]

The 2016 AQMP was adopted by the SCAQMD Board on March 3, 2017, and on March 10, 2017 was submitted to the ARB as part of the SIP.[17] It focuses largely on reducing NO_x emissions as a means of attaining the 1979 1-hour ozone standard by 2022, the 1997 8-hour ozone standard by 2023, and the 2008 8-hour standard by 2031.[18] The AQMP prescribes a variety of current and proposed new control measures, including a request to the EPA for increased regulation of mobile source emissions. The NO_x control measures will also help the SCAB attain the 24-hour standard for $PM_{2.5}$.

3.3 Updated Regional Attainment Status

Table 3.3-1 (Federal and State Attainment Status) shows the area designation status of the SCAB for each criteria pollutant for both the NAAQS and California Ambient Air Quality Standards (CAAQS) as of April 2017.

Table 3.3-1
FEDERAL AND STATE ATTAINMENT STATUS

Pollutants	Federal Classification	State Classification
Ozone (O_3)	2008 8-Hour: Non-Attainment (Extreme)	Non-Attainment
	2015 8-Hour: Designation Pending	Not Applicable
Particulate Matter (PM_{10})	Maintenance	Non-Attainment
Fine Particulate Matter ($PM_{2.5}$)	Non-Attainment	Non-Attainment
Carbon Monoxide (CO)	Maintenance	Attainment
Nitrogen Dioxide (NO_2)	Maintenance	Non-Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment

Source: NAAQS and CAAQS Attainment Status for South Coast Air Basin. South Coast Air Quality Management District. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2.
U.S. Environmental Protection Agency, "PM-10 (1987) Designated Area State/Area/County Report as of February 13, 2017." Green Book. [https://www3.epa.gov/airquality/greenbook/pbcs.html#CA]. Accessed February 13, 2017.

3.4 Sensitive Receptors

Some people, such as individuals with respiratory illnesses or impaired lung function because of other illnesses, persons over 65 years of age, and children under 14, are particularly sensitive to certain pollutants. Facilities and structures where these sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses identified to be sensitive receptors by SCAQMD (1993) in its *CEQA Air Quality Handbook* include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent

16 https://www3.epa.gov/region9/air/actions/pdf/ca/southcoast/epa-r09-oar-2014-0185-0823-factsheet-1hr-attain-vmt-offset-final-action-2014-08-13.pdf
17 Letter from Wayne Nastri, Executive Officer, South Coast Air Quality Management District, Diamond Bar, CA to Richard Corey, Executive Officer, California Air Resources Board, Sacramento, California re Submittal of 2016 Air Quality Management Plan. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/sipsubmittal.pdf?sfvrsn=6.
18 Final 2016 Air Quality Management Plan. Executive Summary. South Coast Air Quality Management District, Diamond Bar, CA. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/executive-summary.pdf?sfvrsn=4.

centers, and retirement homes. Sensitive receptors may be at risk of being affected by air emissions released from the construction and operation of the proposed Project.

The nearest sensitive receptors to the proposed Project site, with the highest potential to be impacted by the proposed Project, are displayed below in **Figure 3.4-1** and listed in **Table 3.4-1**.

Table 3.4-1
NEAREST SENSITIVE RECEPTORS

	Sensitive Receptor Name	Location	Distance from Proposed Project (Feet)
1	Apartment Building	13031 Oxnard Street Van Nuys, CA 91401 Latitude: 34.179581 Longitude: -118.417065	80
2	Los Angeles Valley Community College	5792 Ethel Avenue Sherman Oaks, CA 91401 Latitude: 34.175398 Longitude: -118.418026	85
3	The Church of Jesus Christ Latter-Day Saints	13042 Burbank Blvd. Van Nuys, CA 91401 Latitude: 34.171921 Longitude: -118.417196	93
4	Private Residence	5914 Coldwater Canyon Ave. Valley Village, CA 91607 Latitude: 34.177930 Longitude: -118.413567	271
5	Sunrise School	13130 Burbank Blvd. Sherman Oaks, CA 91401 Latitude: 34.171677 Longitude: -118.419267	375
6	Maggy Haves School	6100 Coldwater Canyon Ave. North Hollywood, CA 91606 Latitude: 34.181424 Longitude: -118.413353	767
7	Monlux Elementary School	6051 Bellaire Avenue North Hollywood, CA 91606 Latitude: 34.181437 Longitude: -118.409848	1318

Source: UltraSystems and Google Earth Pro. 2016.

Figure 3.4-1
SENSITIVE RECEPTORS

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6013_LAUSD_Grant\MXDs\IS_MND\6013_Grant_4_12_Sensitive_Receptors_2017_02_15.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community; LA County Assessor, 2015-2016; Google Earth, 2016; UltraSystems Environmental, Inc., 2016

February 15, 2017

Grant High School Comprehensive Modernization Project

Sensitive Receptors

Scale 1:7,200

N

0 300 600 Feet

0 100 200 Meters

Legend

Grant High School Parcel Boundary

Sensitive Receptors:

House of Worship

Residence

School

UltraSystems environmental•management•planning

4.0 PROJECT-SPECIFIC IMPACTS ANALYSIS

4.1 CEQA Impact Review Criteria

In accordance with *State CEQA Guidelines* Appendix G, implementation of the Project would result in a potentially significant impact if it were to:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 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 that exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

Where available, the significance criteria established by the applicable air quality management district (AQMD) or air pollution control district (APCD) may be relied upon to make the significance determinations. As will be discussed in the next section, the SCAQMD has developed a *CEQA Air Quality Handbook* to provide a protocol for air quality analyses that are prepared under the requirements of CEQA.

4.1.1 Emission Thresholds for Regional Air Quality Impacts

The SCAQMD has developed criteria for determining whether emissions from a project are regionally significant. They are useful for estimating whether a project is likely to result in a violation of the NAAQS and/or whether the project is in conformity with plans to achieve attainment. The SCAQMD no longer has "indirect source" rules, e.g., rules that place restrictions on housing or commercial development, or require reductions in trip generation and/or vehicle miles traveled to developed commercial or industrial sites.[19] Instead, the District has published guidance on conducting air quality analyses under CEQA (SCAQMD 1993).[20] SCAQMD's significance thresholds are summarized in **Table 4.1-1** for criteria pollutant emissions during construction activities and project operation. A project is considered to have a regional air quality impact if emissions from its construction and/or operational activities exceed the corresponding SCAQMD significance thresholds.

19 Two indirect source rules (1501 - Work Trip Reduction Plans and 1501.1 - Alternatives to Work Trip Reduction Plans) were repealed in 1995.

20 Partially updated in 2006.

Table 4.1-1
SCAQMD EMISSIONS THRESHOLDS FOR SIGNIFICANT REGIONAL IMPACTS

Pollutant	Mass Daily Thresholds (Pounds/Day)	
	Construction	Operation
Nitrogen Oxides (NOx)	100	55
Volatile Organic Compounds (VOC)	75	55
Respirable Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Sulfur Oxides (SOx)	150	150
Carbon Monoxide (CO)	550	550
Lead	3	3

Source: "SCAQMD Air Quality Significance Thresholds." 2011. Diamond Bar, CA: South Coast Air Quality Management District, http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. March 2015. Accessed August 26, 2016.

4.1.2 Emission Thresholds for Localized Air Quality Impacts

As part of its environmental justice program to address localized air quality impacts of development projects, SCAQMD developed localized significance thresholds (LSTs) in 2003 (Chico and Koizumi 2003). LSTs represent the maximum NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard. NO_x and CO LSTs are based on the ambient concentrations of that pollutant for each source receptor area (SRA)[21] and distance to the nearest off-site receptor. For PM_{10}, LSTs were derived based on requirements in SCAQMD Rule 403. Note that the LST analysis does not apply to ROG emissions, since there is no ambient air quality standard for ROG.

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours. Commercial and industrial facilities are not included in the definition of sensitive receptor, because employees typically are present for shorter periods of time, such as eight hours. Therefore, applying a 24-hour standard for PM_{10} is appropriate not only because the averaging period for the state standard is 24 hours, but because the sensitive receptor would be present at the location for the full 24 hours.

The SCAQMD has developed mass rate look-up tables that can be used to determine whether a project may generate significant localized air quality impacts to offsite receptors (including sensitive receptors). Note that the use of LSTs is voluntary, to be implemented at the discretion of the lead agency pursuant to CEQA.

4.1.3 Impacts of Carbon Monoxide Hotspots

Because the proposed Project will not result in an increase in traffic at local intersections, the potential for creation of carbon monoxide "hotspots" will be negligible. CO hotspots were therefore omitted from the Ulysses. S. Grant High School analysis.

21 The SCAQMD has defined 38 source receptor areas for various regulatory purposes. Each SRA is assumed to have a unique set of geographic and meteorological characteristics.

4.2 Methodology

Estimated regional air emissions from the Project's onsite and offsite Project construction activities were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.1 (BREEZE Software 2016). CalEEMod is a planning tool for estimating emissions related to land use projects. The model incorporates EMFAC2014 emission factors to estimate on-road vehicle emissions; and emission factors and assumptions from the ARB's OFFROAD2011 model to estimate off-road construction equipment emissions. Model-predicted Project emissions are compared with applicable thresholds to assess regional air quality impacts.

CalEEMod uses many default assumptions based upon surveys of various types of construction projects. However, the user may override the default values where project-specific data are available. The District provided a set of construction equipment assumptions for this Project.[22] Assumptions included

- Total construction duration of 36 months.
- Two 18-month phases, each comprised of four non-overlapping subphases.
- The two main phases will not overlap, except perhaps for asphalt paving or street work.
- Less than five acres will be disturbed at any given time.

Table 4.2-1 lists the construction equipment types and characteristics used in the modelling, and **Table 4.2-2** shows the timing of the main phases and subphases thereof.

22 Data provided by LAUSD via email from Linda Wilde, CEQA Project Manager/OEHS, Los Angeles Unified School District, Los Angeles, CA to Betsy Lindsay, UltraSystems Environmental Inc., Irvine, CA. April 18, 2017.

Table 4.2-1
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Subphase	Equipment Type	Pieces	HP	Load Factor	Hours/ Day
Demolition	Air compressors	2	78	0.48	8
	Crushing/processing equipment	1	85	0.78	8
	Excavators	1	158	0.38	8
	Off-Highway (water) trucks	1	402	0.38	8
	Rubber tired loaders	1	203	0.38	8
	Skid steer loaders	1	65	0.4	8
Site Preparation	Excavators	1	158	0.38	8
	Off-Highway (water) trucks	1	402	0.38	8
	Plate compactors	1	8	0.37	8
	Rollers	2	80	0.38	8
	Rubber tired loaders	1	203	0.36	8
	Tractors/loaders/backhoes	1	97	0.37	8
	Trenchers	1	78	0.5	8
Building Construction	Air compressors	1	78	0.48	8
	Bore/drill rigs	1	221	0.5	8
	Cranes	1	231	0.29	8
	Forklifts	4	89	0.2	8
	Pumps	1	84	0.74	8
	Tractors/loaders/backhoes	2	97	0.37	8
Architectural Coating	Air Compressors	1	78	0.48	6
Asphalt Paving and Offsite Street Work	Off-Highway (water) trucks	1	402	0.38	8
	Paving Equipment	2	130	0.42	8
	Rollers	2	80	0.38	8
	Rubber Tired Loaders	2	97	0.36	8

Table 4.2-2
ASSUMED PROJECT SCHEDULE

Main Phase	Sub-Phase	Starting Date	Ending Date
1	Demolition/Interior Remodeling	January13, 2019	March 6, 2019
	Site Preparation	March 7, 2019	May 8, 2019
	Building Construction	May 9, 2019	May 8, 2020
	Architectural Coating	April 20, 2020	May 8, 2020
	Onsite Paving and Offsite Street Work	May 11, 2020	July 10, 2020
2	Demolition/Interior Remodeling	July 13, 2020	September 9, 2020
	Site Preparation	September 14, 2020	November 13, 2020
	Building Construction	November 16, 2020	November 2, 2021
	Architectural Coating	October 13, 2021	November 2, 2021
	Onsite Paving and Offsite Street Work	November 22, 2021	January 19, 2022

4.3 Air Quality Impacts

4.3.1 Construction Impacts

Project construction activities will generate short-term air quality impacts. Construction emissions occur both onsite and offsite. Onsite air pollutant emissions consist principally of exhaust emissions from off-road heavy-duty construction equipment, as well as fugitive particulate matter from earth working and material handling operations. Offsite emissions result from workers commuting to and from the job site, as well as from trucks hauling materials to the site and construction debris for disposal.

4.3.1.1 Regional Impacts

Emissions of criteria pollutants during Project construction were estimated using the construction module of the California Emissions Estimator Model, Version 2016.3.1 (California Air Pollution Control Officers Association 2016). All modeling output files and additional assumptions are provided in **Attachment 1**.

For the purpose of this analysis, it was estimated that the construction of the proposed Project would begin in early January 2019 and finish in January 2022. Preliminary design and scheduling information from LAUSD[23] was used in conjunction with CalEEMod to estimate the number of days to execute the following construction phases:

- Demolition.
- Site preparation.
- Building renovation and construction.
- Architectural coating.
- Onsite paving.
- Offsite (local street) paving.

The types and numbers of pieces of equipment anticipated in each phase of construction and development were estimated using CalEEMod and experience with similar projects. With this information, a hypothetical but reasonable week-by-week construction schedule was developed and inputted to CalEEMod. It was also assumed that the construction contractor would comply with all pertinent provisions of SCAQMD Rule 403. Equipment exhaust emissions were determined using CalEEMod default values for horsepower and load factors, which are from the California Air Resources Board's OFFROAD2011 model. **Table 4.3-1** shows the model's estimates of maximum daily emissions of the criteria pollutants.

23 Email from Linda Wilde, Los Angeles Unified School District, Los Angeles, CA to Betsy Lindsay, UltraSystems Environmental, Inc., Irvine, CA. April 18, 2017.

Table 4.3-1
MAXIMUM DAILY UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS

Construction Activity	Maximum Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Maximum Emissions (With Rule 403)	57.3	27.4	23.5	2.8	1.6
SCAQMD Significance Thresholds	*75*	*100*	*550*	*150*	*55*
Significant (Yes or No)	**No**	**No**	**No**	**No**	**No**

Source: Calculated by UltraSystems with CalEEMod (Version 2016.3.1).

For each criteria pollutant, construction emissions would be below the pollutant's SCAQMD significance threshold. Therefore, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Construction emissions would be less than significant.

4.3.1.2 Impacts on Sensitive Receptors

Sensitive receptors are persons who are more susceptible to air pollution than the general population, such as children, athletes, the elderly, and the chronically ill. Examples of land uses where substantial numbers of sensitive receptors are often found are schools, daycare centers, parks, recreational areas, medical facilities, nursing homes, and convalescent care facilities. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants. Students on campus were also evaluated as sensitive receptors. As seen in **Table 3.4-1**, the nearest offsite sensitive receptors are an apartment building on the north and Los Angeles Valley Community College on the south sides of the school.

Following SCAQMD guidance (Chico and Koizumi 2003), only onsite construction emissions of NO_x, CO, PM_{10}, and $PM_{2.5}$ were considered in the localized significance analysis. According to the CalEEMod analysis, the highest onsite emissions of all pollutants except PM_{10} would occur during new building construction. For PM_{10}, the activity with the largest onsite emissions would be demolition. It was estimated that, as a worst case, the maximum daily disturbance for demolition and for new building construction would be 1.42 and 0.52 acres, respectively.

Localized significance thresholds were obtained by interpolation from tables in Appendix C of the SCAQMD's *Final Localized Significance Threshold Methodology*.[24] **Tables 4.3-2** through **4.3-4** show the results of the localized significance analysis for the proposed Project. For the unmitigated case, emissions of no criteria pollutant would exceed their threshold for significance. Therefore, localized air pollution impacts are less than significant without mitigation.

24 Chico, T. and Koizumi, J. *Op. Cit.*

Table 4.3-2
LOCALIZED SIGNIFICANCE ANALYSIS FOR OXNARD STREET RESIDENCE

Construction Activity	Area (acres)	Distance (meters)	NO_x	CO	PM_{10}	$PM_{2.5}$
Phase I Demolition	1.42	122				
Projected Emissions (lb/day)			N/A[a]	N/A	2.2	N/A
LSA Threshold (lb/day)			N/A	N/A	35.5	N/A
Significant?			**N/A**	**N/A**	**No**	**N/A**
Phase I Building Construction	0.52	122				
Projected Emissions (lb/day)			26.4	20.0	N/A	1.4
LSA Threshold (lb/day)			100	1,393	N/A	2.7
Significant?			**No**	**No**	**No**	**No**

Sources:
Emissions calculated by UltraSystems with CalEEMod (Version 2016.3.1).
Chico, T. and Koizumi, J. Final Localized Significance Threshold Methodology. South Coast Air Quality Management District, Diamond Bar, California. June 2003.
Thresholds interpolated linearly between distances and then between acreages. Thresholds are for source-receptor area 7 (East San Fernando Valley).
[a]Emission maxima for NO_x, CO, and $PM_{2.5}$ will occur during building construction. Maximum PM_{10} emissions will occur during demolition.

Table 4.3-3
LOCALIZED SIGNIFICANCE ANALYSIS FOR LOS ANGELES VALLEY COMMUNITY COLLEGE

Construction Activity	Area (acres)	Distance (meters)	NO_x	CO	PM_{10}	$PM_{2.5}$
Phase I Demolition	1.42	785				
Projected Emissions (lb/day)			N/A	N/A	2.2	N/A
LSA Threshold (lb/day)			N/A	N/A	139	N/A
Significant?			**N/A**	**N/A**	**No**	**N/A**
Phase I Building Construction	0.52	785				
Projected Emissions (lb/day)			26.4	20.0	N/A	1.4
LSA Threshold (lb/day)			191	7,267	N/A	19
Significant?			**No**	**No**	**N/A**	**No**

Sources:
Emissions calculated by UltraSystems with CalEEMod (Version 2016.3.1).
Chico, T. and Koizumi, J. Final Localized Significance Threshold Methodology. South Coast Air Quality Management District, Diamond Bar, California. June 2003.
Thresholds interpolated linearly between distances and then between acreages. Thresholds are for source-receptor area 7 (East San Fernando Valley).
[a]Emission maxima for NO_x, CO, and $PM_{2.5}$ will occur during building construction. Maximum PM_{10} emissions will occur during demolition.

Table 4.3-4
LOCALIZED SIGNIFICANCE ANALYSIS FOR STUDENTS ON CAMPUS

Construction Activity	Area (acres)	Distance (meters)	NO_x	CO	PM_{10}	$PM_{2.5}$
Phase II Demolition	0.64	67				
Projected Emissions (lb/day)			N/A	N/A	2.1	N/A
LSA Threshold (lb/day)			N/A	N/A	32	N/A
Significant?			**N/A**	**N/A**	**No**	**N/A**
Phase II Building Construction	0.52	67				
Projected Emissions (lb/day)			24.1	19.7	N/A	1.3
LSA Threshold (lb/day)			100	1,393	N/A	2.7
Significant?			**No**	**No**	**No**	**No**

Sources:
Emissions calculated by UltraSystems with CalEEMod (Version 2016.3.1).
Chico, T. and Koizumi, J. Final Localized Significance Threshold Methodology. South Coast Air Quality Management District, Diamond Bar, California. June 2003.
Thresholds interpolated linearly between distances and then between acreages. Thresholds are for source-receptor area 7 (East San Fernando Valley).
[a]Emission maxima for NO_x, CO, and $PM_{2.5}$ will occur during building construction. Maximum PM_{10} emissions will occur during demolition.

Although sensitive receptors would be exposed to diesel exhaust from construction equipment, which has been associated with lung cancer (OEHHA 1998), the duration of exposure would not be sufficient to result in a significant cancer risk. Carcinogenic health risk assessments are based upon

an assumption of 70 years' continuous exposure, while the exposure in the present case would be for about 167 working days. Therefore, no cancer health risk assessment was necessary. Acute non-cancer risk assessments are based upon one-hour maximum exposures, but acute reference exposure levels (RELs) for diesel exhaust and diesel particulate matter have not been established by the Office of Environmental Health Hazard Assessment.[25]

4.3.2 Long-Term Impacts

4.3.2.1 Regional Impacts

The Project will replace or upgrade facilities on the campus of Grant High School, but it will not increase the number of students or faculty at the school, and will not introduce major new emission sources. No new vehicle trips would be generated, and there would be no increase in mobile source emissions. Furthermore, building upgrades and replacement of old, energy-inefficient structures with those that use less energy will reduce emissions from space heating and other onsite sources. Therefore, there will be no net increase in regional emissions of any criteria pollutant, and the impact will be less than significant.

4.3.2.2 Odor Analysis

The PEIR found that schools are not one of the types of land uses typically associated with malodorous emissions (wastewater treatment plants, fiberglass manufacturing facilities, etc.). Furthermore, while landscaping equipment, such as lawnmowers and leaf blowers, generates exhaust fumes, the odors would temporary. In any event, whatever odors are associated with campus operations will not change because of the Project. Short-term construction-related odors will cease upon drying of architectural coatings, or hardening of odor-producing materials. Therefore, odor impacts associated with the Grant High School Comprehensive Modernization Project will be less than significant.

4.3.3 Conformity with Air Quality Management Plan

Neither the Grant High School Comprehensive Modernization Project nor the SUP as a whole is a large, regionally significant project that would affect the regional growth projections made by SCAG and used by the SCAQMD in formulating its Air Quality Management Plan. The student and faculty population at the school will not increase as a result of the Project. Finally, as discussed below, the projected emissions from the Project will not exceed the SCAQMD's regional significance thresholds. Thus, the Project would not be considered by SCAQMD to be a substantial source of air pollutant emissions, and would not conflict or obstruct implementation of the AQMP. Impacts would be less than significant.

25 All OEHHA Acute, 8-hour and Chronic Reference Exposure Levels (chRELs) as of June 2016. June 28, 2016 http://www.oehha.ca.gov/air/allrels.html.

5.0 EMISSION REDUCTION MEASURES

As discussed in **Section 4.3**, both the short-term and long-term air pollution impacts of the Project will be less than significant, especially with implementation of the standard conditions of approval listed in **Table 1.2-1**. Air quality-specific mitigation measures will not be necessary.

6.0 IMPACTS AFTER MITIGATION

No air quality mitigation measures will be necessary for this Project.

7.0 REFERENCES

ARB (State of California, Air Resources Board)
2013 "South Coast Air Basin 2012 PM2.5 and Ozone State Implementation Plans." Resolution 13-3. January 25.

BREEZE Software
2016 California Emissions Estimator Model. User's Guide, Version 2016.3.1. Prepared for the California Air Pollution Control Officers Association, in collaboration with South Coast Air Quality Management District and the California Air Districts. September.

Chico, T. and Koizumi, J.
2003 Final Localized Significance Threshold Methodology: South Coast Air Quality Management District, Diamond Bar, CA. June.

Goldstene, J.N.
2013 Letter from Executive Officer, California Air Resources Board, Sacramento, California to J. Blumenthal, Regional Administrator, Region 9, U.S. Environmental Protection Agency, San Francisco, California. February 13. https://www.arb.ca.gov/planning/sip/planarea/scabsip/2012%20AQMP%20Submittal%20Letter%20to%20U.S.%20EPA.pdf.

OEHHA (Office of Health Hazard Assessment
1998 Part B: Health Risk Assessment for Diesel Exhaust. Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant. California Environmental Protection Agency. 1998.

SCAQMD
1993 CEQA Air Quality Handbook: South Coast Air Quality Management District, Diamond Bar, CA.

Wallerstein, B.
2012 Letter from Executive Director, South Coast Air Quality Management District to James Goldstene, Executive Officer, California Air Resources Board and Deborah Jordan, Air Division Director, U.S. Environmental Protection Agency, Region IX. December 20.

ATTACHMENTS

ATTACHMENT 1

CALEEMOD OUTPUT

LAUSD Grant High School

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	44.13	1000sqft	1.01	44,135.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2021
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 - g

Land Use - g

Construction Phase - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Demolition - g

Architectural Coating - g

Energy Use -

Trips and VMT - g

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	22,068.00	44,135.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	66,203.00	132,405.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Nonresidential_Exterior	22068	0
tblAreaCoating	Area_Nonresidential_Interior	66203	0
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	200.00	262.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	45.00
tblLandUse	BuildingSpaceSquareFeet	44,130.00	44,135.00

tblLandUse	LandUseSquareFeet	44,130.00	44,135.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Site Prep I

tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	57.37	114.75
tblTripsAndVMT	HaulingTripNumber	199.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	19.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	4.00	50.00
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblWater	IndoorWaterUseRate	1,465,320.76	2,930,973.57
tblWater	OutdoorWaterUseRate	3,767,967.68	7,536,789.19

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					
2019	0.3827	3.4987	2.8260	5.9500e-003	0.0972	0.1874	0.2846	0.0235	0.1763	0.1999	0.0000	531.3685	531.3685	0.1186	0.0000	534.3334
2020	0.5845	1.6393	1.3868	2.9600e-003	0.0341	0.0838	0.1179	9.1100e-003	0.0785	0.0876	0.0000	260.6215	260.6215	0.0624	0.0000	262.1823
Maximum	**0.5845**	**3.4987**	**2.8260**	**5.9500e-003**	**0.0972**	**0.1874**	**0.2846**	**0.0235**	**0.1763**	**0.1999**	**0.0000**	**531.3685**	**531.3685**	**0.1186**	**0.0000**	**534.3334**

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					
2019	0.3827	3.4987	2.8260	5.9500e-003	0.0972	0.1874	0.2846	0.0235	0.1763	0.1999	0.0000	531.3680	531.3680	0.1186	0.0000	534.3329
2020	0.5845	1.6393	1.3868	2.9600e-003	0.0341	0.0838	0.1179	9.1100e-003	0.0785	0.0876	0.0000	260.6212	260.6212	0.0624	0.0000	262.1821
Maximum	**0.5845**	**3.4987**	**2.8260**	**5.9500e-003**	**0.0972**	**0.1874**	**0.2846**	**0.0235**	**0.1763**	**0.1999**	**0.0000**	**531.3680**	**531.3680**	**0.1186**	**0.0000**	**534.3329**

	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2019	4-2-2019	0.6553	0.6553
2	4-3-2019	7-2-2019	0.5957	0.5957
3	7-3-2019	10-2-2019	0.9964	0.9964
4	10-3-2019	1-2-2020	0.9959	0.9959
5	1-3-2020	4-2-2020	0.9014	0.9014
6	4-3-2020	7-2-2020	0.7994	0.7994
7	7-3-2020	9-30-2020	0.0645	0.0645
		Highest	0.9964	0.9964

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Energy	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	174.0675	174.0675	4.0000e-003	1.1800e-003	174.5196
Mobile	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Waste						0.0000	0.0000		0.0000	0.0000	23.2932	0.0000	23.2932	1.3766	0.0000	57.7080
Water						0.0000	0.0000		0.0000	0.0000	0.9299	67.8925	68.8223	0.0971	2.5900e-003	72.0209
Total	**0.3179**	**0.8983**	**2.3555**	**8.7900e-003**	**0.7220**	**8.7300e-003**	**0.7308**	**0.1935**	**8.2700e-003**	**0.2017**	**24.2231**	**1,040.0406**	**1,064.2637**	**1.5158**	**3.7700e-003**	**1,103.2828**

2.2 Overall Operational

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Energy	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	174.0675	174.0675	4.0000e-003	1.1800e-003	174.5196
Mobile	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Waste						0.0000	0.0000		0.0000	0.0000	23.2932	0.0000	23.2932	1.3766	0.0000	57.7080
Water						0.0000	0.0000		0.0000	0.0000	0.9299	67.8925	68.8223	0.0971	2.5900e-003	72.0209
Total	**0.3179**	**0.8983**	**2.3555**	**8.7900e-003**	**0.7220**	**8.7300e-003**	**0.7308**	**0.1935**	**8.2700e-003**	**0.2017**	**24.2231**	**1,040.0406**	**1,064.2637**	**1.5158**	**3.7700e-003**	**1,103.2828**

	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/Interim Housing I	Demolition	1/3/2019	3/6/2019	5	45	
2	Site Prep I	Site Preparation	3/7/2019	5/8/2019	5	45	
3	Building Construction I	Building Construction	5/9/2019	5/8/2020	5	262	
4	Asphalt Paving and Off-Site Street Work I	Paving	5/9/2020	7/10/2020	5	45	
5	Coating I	Architectural Coating	7/11/2020	7/31/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 132,405; Non-Residential Outdoor: 44,135; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Interim Housing I	Air Compressors	2	8.00	78	0.48
Demolition/Interim Housing I	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Interim Housing I	Excavators	1	8.00	158	0.38
Demolition/Interim Housing I	Off-Highway Trucks	1	8.00	402	0.38
Demolition/Interim Housing I	Rubber Tired Loaders	1	8.00	203	0.38
Demolition/Interim Housing I	Skid Steer Loaders	1	8.00	65	0.40
Site Prep I	Excavators	1	8.00	158	0.38
Site Prep I	Off-Highway Trucks	1	8.00	402	0.38
Site Prep I	Plate Compactors	1	8.00	8	0.37
Site Prep I	Rollers	2	8.00	80	0.38
Site Prep I	Rubber Tired Loaders	1	8.00	203	0.36
Site Prep I	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Prep I	Trenchers	1	8.00	78	0.50
Building Construction I	Air Compressors	1	8.00	78	0.48
Building Construction I	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction I	Cranes	1	8.00	231	0.29
Building Construction I	Forklifts	4	8.00	89	0.20
Building Construction I	Pumps	1	8.00	84	0.74
Building Construction I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Coating I	Air Compressors	1	6.00	78	0.48
Asphalt Paving and Off-Site Street Work I	Off-Highway Trucks	1	8.00	402	0.38
Asphalt Paving and Off-Site Street Work I	Pavers	2	8.00	130	0.42
Asphalt Paving and Off-Site Street Work I	Rollers	2	8.00	80	0.38
Asphalt Paving and Off-Site Street Work I	Rubber Tired Loaders	1	8.00	203	0.36

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition/Interim Housing I	7	50.00	0.00	20.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Site Prep I	8	50.00	0.00	35.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Building Construction I	10	50.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Coating I	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving and Off-Site Street Work I	6	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition/Interim Housing I - 2019

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					0.0215	0.0000	0.0215	3.2500e-003	0.0000	3.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0630	0.5675	0.4459	9.5000e-004		0.0280	0.0280		0.0269	0.0269	0.0000	83.8573	83.8573	0.0198	0.0000	84.3519
Total	**0.0630**	**0.5675**	**0.4459**	**9.5000e-004**	**0.0215**	**0.0280**	**0.0494**	**3.2500e-003**	**0.0269**	**0.0301**	**0.0000**	**83.8573**	**83.8573**	**0.0198**	**0.0000**	**84.3519**

3.2 Demolition/Interim Housing I - 2019

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	8.0000e-005	2.2200e-003	5.6000e-004	1.0000e-005	1.8000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6161	0.6161	3.0000e-005	0.0000	0.6168
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	5.2900e-003	0.0172	0.0471	1.6000e-004	0.0126	1.8000e-004	0.0128	3.3700e-003	1.7000e-004	3.5400e-003	0.0000	14.5736	14.5736	7.4000e-004	0.0000	14.5922
Total	**5.3700e-003**	**0.0194**	**0.0476**	**1.7000e-004**	**0.0128**	**2.0000e-004**	**0.0130**	**3.4200e-003**	**1.9000e-004**	**3.6100e-003**	**0.0000**	**15.1897**	**15.1897**	**7.7000e-004**	**0.0000**	**15.2090**

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					0.0215	0.0000	0.0215	3.2500e-003	0.0000	3.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0630	0.5675	0.4459	9.5000e-004		0.0280	0.0280		0.0269	0.0269	0.0000	83.8572	83.8572	0.0198	0.0000	84.3518
Total	**0.0630**	**0.5675**	**0.4459**	**9.5000e-004**	**0.0215**	**0.0280**	**0.0494**	**3.2500e-003**	**0.0269**	**0.0301**	**0.0000**	**83.8572**	**83.8572**	**0.0198**	**0.0000**	**84.3518**

3.2 Demolition/Interim Housing I - 2019

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	8.0000e-005	2.2200e-003	5.6000e-004	1.0000e-005	1.8000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.6161	0.6161	3.0000e-005	0.0000	0.6168
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	5.2900e-003	0.0172	0.0471	1.6000e-004	0.0126	1.8000e-004	0.0128	3.3700e-003	1.7000e-004	3.5400e-003	0.0000	14.5736	14.5736	7.4000e-004	0.0000	14.5922
Total	**5.3700e-003**	**0.0194**	**0.0476**	**1.7000e-004**	**0.0128**	**2.0000e-004**	**0.0130**	**3.4200e-003**	**1.9000e-004**	**3.6100e-003**	**0.0000**	**15.1897**	**15.1897**	**7.7000e-004**	**0.0000**	**15.2090**

3.3 Site Prep I - 2019

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0568	0.5771	0.4022	8.3000e-004		0.0294	0.0294		0.0271	0.0271	0.0000	74.0554	74.0554	0.0233	0.0000	74.6380
Total	**0.0568**	**0.5771**	**0.4022**	**8.3000e-004**	**0.0000**	**0.0294**	**0.0294**	**0.0000**	**0.0271**	**0.0271**	**0.0000**	**74.0554**	**74.0554**	**0.0233**	**0.0000**	**74.6380**

3.3 Site Prep I - 2019

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	1.5000e-004	3.8900e-003	9.8000e-004	1.0000e-005	3.2000e-004	4.0000e-005	3.6000e-004	9.0000e-005	4.0000e-005	1.3000e-004	0.0000	1.0781	1.0781	5.0000e-005	0.0000	1.0795
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	5.2900e-003	0.0172	0.0471	1.6000e-004	0.0126	1.8000e-004	0.0128	3.3700e-003	1.7000e-004	3.5400e-003	0.0000	14.5736	14.5736	7.4000e-004	0.0000	14.5922
Total	**5.4400e-003**	**0.0211**	**0.0480**	**1.7000e-004**	**0.0129**	**2.2000e-004**	**0.0131**	**3.4600e-003**	**2.1000e-004**	**3.6700e-003**	**0.0000**	**15.6517**	**15.6517**	**7.9000e-004**	**0.0000**	**15.6717**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0568	0.5771	0.4022	8.3000e-004		0.0294	0.0294		0.0271	0.0271	0.0000	74.0553	74.0553	0.0233	0.0000	74.6379
Total	**0.0568**	**0.5771**	**0.4022**	**8.3000e-004**	**0.0000**	**0.0294**	**0.0294**	**0.0000**	**0.0271**	**0.0271**	**0.0000**	**74.0553**	**74.0553**	**0.0233**	**0.0000**	**74.6379**

3.3 Site Prep I - 2019

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	1.5000e-004	3.8900e-003	9.8000e-004	1.0000e-005	3.2000e-004	4.0000e-005	3.6000e-004	9.0000e-005	4.0000e-005	1.3000e-004	0.0000	1.0781	1.0781	5.0000e-005	0.0000	1.0795
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	5.2900e-003	0.0172	0.0471	1.6000e-004	0.0126	1.8000e-004	0.0128	3.3700e-003	1.7000e-004	3.5400e-003	0.0000	14.5736	14.5736	7.4000e-004	0.0000	14.5922
Total	**5.4400e-003**	**0.0211**	**0.0480**	**1.7000e-004**	**0.0129**	**2.2000e-004**	**0.0131**	**3.4600e-003**	**2.1000e-004**	**3.6700e-003**	**0.0000**	**15.6517**	**15.6517**	**7.9000e-004**	**0.0000**	**15.6717**

3.4 Building Construction I - 2019

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	0.2294	2.2281	1.6882	3.2100e-003		0.1287	0.1287		0.1212	0.1212	0.0000	284.9448	284.9448	0.0716	0.0000	286.7339
Total	**0.2294**	**2.2281**	**1.6882**	**3.2100e-003**		**0.1287**	**0.1287**		**0.1212**	**0.1212**	**0.0000**	**284.9448**	**284.9448**	**0.0716**	**0.0000**	**286.7339**

3.4 Building Construction I - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3500e-003	0.0693	0.0177	1.5000e-004	3.7300e-003	4.5000e-004	4.1800e-003	1.0800e-003	4.3000e-004	1.5100e-003	0.0000	14.5642	14.5642	1.0200e-003	0.0000	14.5897
Worker	0.0203	0.0162	0.1764	4.8000e-004	0.0464	3.7000e-004	0.0467	0.0123	3.4000e-004	0.0127	0.0000	43.1055	43.1055	1.3500e-003	0.0000	43.1393
Total	**0.0227**	**0.0855**	**0.1941**	**6.3000e-004**	**0.0501**	**8.2000e-004**	**0.0509**	**0.0134**	**7.7000e-004**	**0.0142**	**0.0000**	**57.6697**	**57.6697**	**2.3700e-003**	**0.0000**	**57.7290**

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	0.2294	2.2281	1.6882	3.2100e-003		0.1287	0.1287		0.1212	0.1212	0.0000	284.9445	284.9445	0.0716	0.0000	286.7336
Total	**0.2294**	**2.2281**	**1.6882**	**3.2100e-003**		**0.1287**	**0.1287**		**0.1212**	**0.1212**	**0.0000**	**284.9445**	**284.9445**	**0.0716**	**0.0000**	**286.7336**

3.4 Building Construction I - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3500e-003	0.0693	0.0177	1.5000e-004	3.7300e-003	4.5000e-004	4.1800e-003	1.0800e-003	4.3000e-004	1.5100e-003	0.0000	14.5642	14.5642	1.0200e-003	0.0000	14.5897
Worker	0.0203	0.0162	0.1764	4.8000e-004	0.0464	3.7000e-004	0.0467	0.0123	3.4000e-004	0.0127	0.0000	43.1055	43.1055	1.3500e-003	0.0000	43.1393
Total	**0.0227**	**0.0855**	**0.1941**	**6.3000e-004**	**0.0501**	**8.2000e-004**	**0.0509**	**0.0134**	**7.7000e-004**	**0.0142**	**0.0000**	**57.6697**	**57.6697**	**2.3700e-003**	**0.0000**	**57.7290**

3.4 Building Construction I - 2020

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	0.1150	1.1201	0.9152	1.7700e-003		0.0619	0.0619		0.0583	0.0583	0.0000	154.4172	154.4172	0.0391	0.0000	155.3952
Total	**0.1150**	**1.1201**	**0.9152**	**1.7700e-003**		**0.0619**	**0.0619**		**0.0583**	**0.0583**	**0.0000**	**154.4172**	**154.4172**	**0.0391**	**0.0000**	**155.3952**

3.4 Building Construction I - 2020

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	1.1000e-003	0.0349	8.8000e-003	8.0000e-005	2.0500e-003	1.7000e-004	2.2200e-003	5.9000e-004	1.6000e-004	7.6000e-004	0.0000	7.9633	7.9633	5.3000e-004	0.0000	7.9766
Worker	0.0104	7.9700e-003	0.0882	2.5000e-004	0.0255	2.0000e-004	0.0257	6.7700e-003	1.8000e-004	6.9600e-003	0.0000	22.9856	22.9856	6.6000e-004	0.0000	23.0022
Total	**0.0115**	**0.0429**	**0.0970**	**3.3000e-004**	**0.0276**	**3.7000e-004**	**0.0279**	**7.3600e-003**	**3.4000e-004**	**7.7200e-003**	**0.0000**	**30.9489**	**30.9489**	**1.1900e-003**	**0.0000**	**30.9787**

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	0.1150	1.1201	0.9152	1.7700e-003		0.0619	0.0619		0.0583	0.0583	0.0000	154.4170	154.4170	0.0391	0.0000	155.3950
Total	**0.1150**	**1.1201**	**0.9152**	**1.7700e-003**		**0.0619**	**0.0619**		**0.0583**	**0.0583**	**0.0000**	**154.4170**	**154.4170**	**0.0391**	**0.0000**	**155.3950**

3.4 Building Construction I - 2020

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	1.1000e-003	0.0349	8.8000e-003	8.0000e-005	2.0500e-003	1.7000e-004	2.2200e-003	5.9000e-004	1.6000e-004	7.6000e-004	0.0000	7.9633	7.9633	5.3000e-004	0.0000	7.9766
Worker	0.0104	7.9700e-003	0.0882	2.5000e-004	0.0255	2.0000e-004	0.0257	6.7700e-003	1.8000e-004	6.9600e-003	0.0000	22.9856	22.9856	6.6000e-004	0.0000	23.0022
Total	**0.0115**	**0.0429**	**0.0970**	**3.3000e-004**	**0.0276**	**3.7000e-004**	**0.0279**	**7.3600e-003**	**3.4000e-004**	**7.7200e-003**	**0.0000**	**30.9489**	**30.9489**	**1.1900e-003**	**0.0000**	**30.9787**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

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	0.0445	0.4616	0.3382	7.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	67.4087	67.4087	0.0218	0.0000	67.9537
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0445**	**0.4616**	**0.3382**	**7.7000e-004**		**0.0206**	**0.0206**		**0.0190**	**0.0190**	**0.0000**	**67.4087**	**67.4087**	**0.0218**	**0.0000**	**67.9537**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	7.7000e-004	8.5400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.2244	2.2244	6.0000e-005	0.0000	2.2260
Total	**1.0000e-003**	**7.7000e-004**	**8.5400e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.2244**	**2.2244**	**6.0000e-005**	**0.0000**	**2.2260**

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	0.0445	0.4616	0.3382	7.7000e-004		0.0206	0.0206		0.0190	0.0190	0.0000	67.4086	67.4086	0.0218	0.0000	67.9536
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0445**	**0.4616**	**0.3382**	**7.7000e-004**		**0.0206**	**0.0206**		**0.0190**	**0.0190**	**0.0000**	**67.4086**	**67.4086**	**0.0218**	**0.0000**	**67.9536**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-003	7.7000e-004	8.5400e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.2244	2.2244	6.0000e-005	0.0000	2.2260
Total	**1.0000e-003**	**7.7000e-004**	**8.5400e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.2244**	**2.2244**	**6.0000e-005**	**0.0000**	**2.2260**

3.6 Coating I - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0126	0.0137	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.9149	1.9149	1.5000e-004	0.0000	1.9187
Total	**0.4110**	**0.0126**	**0.0137**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.5000e-004**	**0.0000**	**1.9187**

3.6 Coating I - 2020

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	1.6700e-003	1.2900e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7074	3.7074	1.1000e-004	0.0000	3.7100
Total	**1.6700e-003**	**1.2900e-003**	**0.0142**	**4.0000e-005**	**4.1100e-003**	**3.0000e-005**	**4.1500e-003**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**0.0000**	**3.7074**	**3.7074**	**1.1000e-004**	**0.0000**	**3.7100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8200e-003	0.0126	0.0137	2.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	1.9149	1.9149	1.5000e-004	0.0000	1.9186
Total	**0.4110**	**0.0126**	**0.0137**	**2.0000e-005**		**8.3000e-004**	**8.3000e-004**		**8.3000e-004**	**8.3000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.5000e-004**	**0.0000**	**1.9186**

3.6 Coating I - 2020

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	1.6700e-003	1.2900e-003	0.0142	4.0000e-005	4.1100e-003	3.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1200e-003	0.0000	3.7074	3.7074	1.1000e-004	0.0000	3.7100
Total	**1.6700e-003**	**1.2900e-003**	**0.0142**	**4.0000e-005**	**4.1100e-003**	**3.0000e-005**	**4.1500e-003**	**1.0900e-003**	**3.0000e-005**	**1.1200e-003**	**0.0000**	**3.7074**	**3.7074**	**1.1000e-004**	**0.0000**	**3.7100**

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	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Unmitigated	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	568.84	192.85	78.99	1,901,120	1,901,120
Total	568.84	192.85	78.99	1,901,120	1,901,120

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
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	149.4555	149.4555	3.5300e-003	7.3000e-004	149.7614
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	149.4555	149.4555	3.5300e-003	7.3000e-004	149.7614
NaturalGas Mitigated	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
NaturalGas Unmitigated	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582

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					
High School	461211	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
Total		**2.4900e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**24.6120**	**24.6120**	**4.7000e-004**	**4.5000e-004**	**24.7582**

5.2 Energy by Land Use - NaturalGas

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					
High School	461211	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
Total		**2.4900e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**24.6120**	**24.6120**	**4.7000e-004**	**4.5000e-004**	**24.7582**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	268341	149.4555	3.5300e-003	7.3000e-004	149.7614
Total		**149.4555**	**3.5300e-003**	**7.3000e-004**	**149.7614**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	268341	149.4555	3.5300e-003	7.3000e-004	149.7614
Total		**149.4555**	**3.5300e-003**	**7.3000e-004**	**149.7614**

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Unmitigated	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Total	**0.1595**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Total	**0.1595**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	68.8223	0.0971	2.5900e-003	72.0209
Unmitigated	68.8223	0.0971	2.5900e-003	72.0209

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	2.93097 / 7.53679	68.8223	0.0971	2.5900e-003	72.0209
Total		**68.8223**	**0.0971**	**2.5900e-003**	**72.0209**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	2.93097 / 7.53679	68.8223	0.0971	2.5900e-003	72.0209
Total		**68.8223**	**0.0971**	**2.5900e-003**	**72.0209**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.2932	1.3766	0.0000	57.7080
Unmitigated	23.2932	1.3766	0.0000	57.7080

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	114.75	23.2932	1.3766	0.0000	57.7080
Total		**23.2932**	**1.3766**	**0.0000**	**57.7080**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	114.75	23.2932	1.3766	0.0000	57.7080
Total		**23.2932**	**1.3766**	**0.0000**	**57.7080**

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

LAUSD Grant High School

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	44.13	1000sqft	1.01	44,135.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2021
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 - g

Land Use - g

Construction Phase - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Demolition - g

Architectural Coating - g

Energy Use -

Trips and VMT - g

Grading -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	22,068.00	44,135.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	66,203.00	132,405.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Nonresidential_Exterior	22068	0
tblAreaCoating	Area_Nonresidential_Interior	66203	0
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	200.00	252.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	2.00	45.00

tblGrading	MaterialExported	0.00	22,050.00
tblLandUse	BuildingSpaceSquareFeet	44,130.00	44,135.00
tblLandUse	LandUseSquareFeet	44,130.00	44,135.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	57.37	114.75
tblTripsAndVMT	HaulingTripNumber	199.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix

tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	19.00	50.00
tblTripsAndVMT	WorkerTripNumber	4.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblWater	IndoorWaterUseRate	1,465,320.76	2,930,973.57
tblWater	OutdoorWaterUseRate	3,767,967.68	7,536,789.19

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					
2020	0.1648	1.4792	1.2718	2.8200e-003	0.0579	0.0732	0.1311	0.0129	0.0688	0.0816	0.0000	248.6803	248.6803	0.0582	0.0000	250.1347
2021	0.7100	2.7348	2.5890	5.5400e-003	0.0737	0.1388	0.2125	0.0197	0.1304	0.1501	0.0000	487.6159	487.6159	0.1086	0.0000	490.3309
2022	0.0115	0.0964	0.1039	2.5000e-004	3.5700e-003	4.2200e-003	7.7900e-003	9.5000e-004	3.8900e-003	4.8300e-003	0.0000	22.4768	22.4768	6.3800e-003	0.0000	22.6362
Maximum	**0.7100**	**2.7348**	**2.5890**	**5.5400e-003**	**0.0737**	**0.1388**	**0.2125**	**0.0197**	**0.1304**	**0.1501**	**0.0000**	**487.6159**	**487.6159**	**0.1086**	**0.0000**	**490.3309**

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					
2020	0.1648	1.4792	1.2718	2.8200e-003	0.0579	0.0732	0.1311	0.0129	0.0688	0.0816	0.0000	248.6801	248.6801	0.0582	0.0000	250.1344
2021	0.7100	2.7347	2.5890	5.5400e-003	0.0737	0.1388	0.2125	0.0197	0.1304	0.1501	0.0000	487.6154	487.6154	0.1086	0.0000	490.3304
2022	0.0115	0.0964	0.1039	2.5000e-004	3.5700e-003	4.2200e-003	7.7900e-003	9.5000e-004	3.8900e-003	4.8300e-003	0.0000	22.4767	22.4767	6.3800e-003	0.0000	22.6361
Maximum	**0.7100**	**2.7347**	**2.5890**	**5.5400e-003**	**0.0737**	**0.1388**	**0.2125**	**0.0197**	**0.1304**	**0.1501**	**0.0000**	**487.6154**	**487.6154**	**0.1086**	**0.0000**	**490.3304**

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	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
7	**7-3-2020**	**10-2-2020**	0.5561	0.5561
8	**10-3-2020**	**1-2-2021**	0.4735	0.4735
9	**1-3-2021**	**4-2-2021**	0.8013	0.8013
10	**4-3-2021**	**7-2-2021**	0.8092	0.8092
11	**7-3-2021**	**10-2-2021**	0.8181	0.8181
12	**10-3-2021**	**1-2-2022**	0.5788	0.5788
13	**1-3-2022**	**4-2-2022**	0.1008	0.1008
		Highest	0.8181	0.8181

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Energy	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	174.0675	174.0675	4.0000e-003	1.1800e-003	174.5196
Mobile	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Waste						0.0000	0.0000		0.0000	0.0000	23.2932	0.0000	23.2932	1.3766	0.0000	57.7080
Water						0.0000	0.0000		0.0000	0.0000	0.9299	67.8925	68.8223	0.0971	2.5900e-003	72.0209
Total	**0.3179**	**0.8983**	**2.3555**	**8.7900e-003**	**0.7220**	**8.7300e-003**	**0.7308**	**0.1935**	**8.2700e-003**	**0.2017**	**24.2231**	**1,040.0406**	**1,064.2637**	**1.5158**	**3.7700e-003**	**1,103.2828**

2.2 Overall Operational

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Energy	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	174.0675	174.0675	4.0000e-003	1.1800e-003	174.5196
Mobile	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Waste						0.0000	0.0000		0.0000	0.0000	23.2932	0.0000	23.2932	1.3766	0.0000	57.7080
Water						0.0000	0.0000		0.0000	0.0000	0.9299	67.8925	68.8223	0.0971	2.5900e-003	72.0209
Total	**0.3179**	**0.8983**	**2.3555**	**8.7900e-003**	**0.7220**	**8.7300e-003**	**0.7308**	**0.1935**	**8.2700e-003**	**0.2017**	**24.2231**	**1,040.0406**	**1,064.2637**	**1.5158**	**3.7700e-003**	**1,103.2828**

	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/Interim Housing II	Demolition	7/13/2020	9/9/2020	5	43	
2	Site Prep II	Site Preparation	9/14/2020	11/13/2020	5	45	
3	Building Construction II	Building Construction	11/16/2020	11/2/2021	5	252	
4	Coating II	Architectural Coating	10/13/2021	11/2/2021	5	15	
5	Asphalt Paving and Off-Site Street Work II	Paving	11/22/2021	1/19/2022	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 132,405; Non-Residential Outdoor: 44,135; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Interim Housing II	Air Compressors	2	8.00	78	0.48
Demolition/Interim Housing II	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Interim Housing II	Excavators	1	8.00	158	0.38
Demolition/Interim Housing II	Off-Highway Trucks	1	8.00	402	0.38
Demolition/Interim Housing II	Rubber Tired Loaders	1	8.00	203	0.38
Demolition/Interim Housing II	Skid Steer Loaders	1	8.00	65	0.40
Site Prep II	Excavators	1	8.00	158	0.38
Site Prep II	Off-Highway Trucks	1	8.00	402	0.38
Site Prep II	Plate Compactors	1	8.00	8	0.37
Site Prep II	Rollers	2	8.00	80	0.38
Site Prep II	Rubber Tired Loaders	1	8.00	203	0.36
Site Prep II	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Prep II	Trenchers	1	8.00	78	0.50
Building Construction II	Air Compressors	1	8.00	78	0.48
Building Construction II	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction II	Cranes	1	8.00	231	0.29
Building Construction II	Forklifts	4	8.00	89	0.20
Building Construction II	Pumps	1	8.00	84	0.74
Building Construction II	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Asphalt Paving and Off-Site Street Work II	Off-Highway Trucks	1	8.00	402	0.38
Asphalt Paving and Off-Site Street Work II	Pavers	2	8.00	130	0.42
Asphalt Paving and Off-Site Street Work II	Rollers	2	8.00	80	0.38
Asphalt Paving and Off-Site Street Work II	Rubber Tired Loaders	1	8.00	203	0.36
Coating II	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition/Interim Housing II	7	50.00	0.00	20.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Site Prep II	8	50.00	0.00	35.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Building Construction II	10	50.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving and Off-Site Street Work II	7	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Coating II	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition/Interim Housing II - 2020

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					0.0215	0.0000	0.0215	3.2500e-003	0.0000	3.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0557	0.4908	0.4202	9.1000e-004		0.0234	0.0234		0.0225	0.0225	0.0000	78.9732	78.9732	0.0187	0.0000	79.4408
Total	**0.0557**	**0.4908**	**0.4202**	**9.1000e-004**	**0.0215**	**0.0234**	**0.0449**	**3.2500e-003**	**0.0225**	**0.0257**	**0.0000**	**78.9732**	**78.9732**	**0.0187**	**0.0000**	**79.4408**

3.2 Demolition/Interim Housing II - 2020

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	7.0000e-005	1.9700e-003	5.0000e-004	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6114	0.6114	3.0000e-005	0.0000	0.6121
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	4.7000e-003	0.0150	0.0412	1.5000e-004	0.0120	1.5000e-004	0.0122	3.2200e-003	1.4000e-004	3.3600e-003	0.0000	13.5894	13.5894	6.6000e-004	0.0000	13.6059
Total	**4.7700e-003**	**0.0170**	**0.0417**	**1.6000e-004**	**0.0122**	**1.6000e-004**	**0.0124**	**3.2700e-003**	**1.5000e-004**	**3.4300e-003**	**0.0000**	**14.2008**	**14.2008**	**6.9000e-004**	**0.0000**	**14.2180**

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					0.0215	0.0000	0.0215	3.2500e-003	0.0000	3.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0557	0.4908	0.4202	9.1000e-004		0.0234	0.0234		0.0225	0.0225	0.0000	78.9731	78.9731	0.0187	0.0000	79.4407
Total	**0.0557**	**0.4908**	**0.4202**	**9.1000e-004**	**0.0215**	**0.0234**	**0.0449**	**3.2500e-003**	**0.0225**	**0.0257**	**0.0000**	**78.9731**	**78.9731**	**0.0187**	**0.0000**	**79.4407**

3.2 Demolition/Interim Housing II - 2020

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	7.0000e-005	1.9700e-003	5.0000e-004	1.0000e-005	1.8000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.6114	0.6114	3.0000e-005	0.0000	0.6121
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	4.7000e-003	0.0150	0.0412	1.5000e-004	0.0120	1.5000e-004	0.0122	3.2200e-003	1.4000e-004	3.3600e-003	0.0000	13.5894	13.5894	6.6000e-004	0.0000	13.6059
Total	**4.7700e-003**	**0.0170**	**0.0417**	**1.6000e-004**	**0.0122**	**1.6000e-004**	**0.0124**	**3.2700e-003**	**1.5000e-004**	**3.4300e-003**	**0.0000**	**14.2008**	**14.2008**	**6.9000e-004**	**0.0000**	**14.2180**

3.3 Site Prep II - 2020

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					1.2500e-003	0.0000	1.2500e-003	1.9000e-004	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5271	0.3959	8.3000e-004		0.0267	0.0267		0.0245	0.0245	0.0000	72.4467	72.4467	0.0233	0.0000	73.0292
Total	**0.0532**	**0.5271**	**0.3959**	**8.3000e-004**	**1.2500e-003**	**0.0267**	**0.0279**	**1.9000e-004**	**0.0245**	**0.0247**	**0.0000**	**72.4467**	**72.4467**	**0.0233**	**0.0000**	**73.0292**

3.3 Site Prep II - 2020

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	1.2000e-004	3.4500e-003	8.8000e-004	1.0000e-005	3.2000e-004	3.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.2000e-004	0.0000	1.0699	1.0699	5.0000e-005	0.0000	1.0712
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	4.9100e-003	0.0157	0.0431	1.5000e-004	0.0126	1.6000e-004	0.0127	3.3700e-003	1.5000e-004	3.5200e-003	0.0000	14.2215	14.2215	6.9000e-004	0.0000	14.2388
Total	**5.0300e-003**	**0.0192**	**0.0440**	**1.6000e-004**	**0.0129**	**1.9000e-004**	**0.0131**	**3.4600e-003**	**1.7000e-004**	**3.6400e-003**	**0.0000**	**15.2914**	**15.2914**	**7.4000e-004**	**0.0000**	**15.3099**

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					1.2500e-003	0.0000	1.2500e-003	1.9000e-004	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0532	0.5271	0.3959	8.3000e-004		0.0267	0.0267		0.0245	0.0245	0.0000	72.4466	72.4466	0.0233	0.0000	73.0291
Total	**0.0532**	**0.5271**	**0.3959**	**8.3000e-004**	**1.2500e-003**	**0.0267**	**0.0279**	**1.9000e-004**	**0.0245**	**0.0247**	**0.0000**	**72.4466**	**72.4466**	**0.0233**	**0.0000**	**73.0291**

3.3 Site Prep II - 2020

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	1.2000e-004	3.4500e-003	8.8000e-004	1.0000e-005	3.2000e-004	3.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.2000e-004	0.0000	1.0699	1.0699	5.0000e-005	0.0000	1.0712
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	4.9100e-003	0.0157	0.0431	1.5000e-004	0.0126	1.6000e-004	0.0127	3.3700e-003	1.5000e-004	3.5200e-003	0.0000	14.2215	14.2215	6.9000e-004	0.0000	14.2388
Total	**5.0300e-003**	**0.0192**	**0.0440**	**1.6000e-004**	**0.0129**	**1.9000e-004**	**0.0131**	**3.4600e-003**	**1.7000e-004**	**3.6400e-003**	**0.0000**	**15.2914**	**15.2914**	**7.4000e-004**	**0.0000**	**15.3099**

3.4 Building Construction II - 2020

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	0.0420	0.4095	0.3346	6.5000e-004		0.0226	0.0226		0.0213	0.0213	0.0000	56.4536	56.4536	0.0143	0.0000	56.8112
Total	**0.0420**	**0.4095**	**0.3346**	**6.5000e-004**		**0.0226**	**0.0226**		**0.0213**	**0.0213**	**0.0000**	**56.4536**	**56.4536**	**0.0143**	**0.0000**	**56.8112**

3.4 Building Construction II - 2020

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	4.0000e-004	0.0128	3.2200e-003	3.0000e-005	7.5000e-004	6.0000e-005	8.1000e-004	2.2000e-004	6.0000e-005	2.8000e-004	0.0000	2.9113	2.9113	1.9000e-004	0.0000	2.9162
Worker	3.7800e-003	2.9100e-003	0.0323	9.0000e-005	9.3300e-003	7.0000e-005	9.4000e-003	2.4800e-003	7.0000e-005	2.5400e-003	0.0000	8.4034	8.4034	2.4000e-004	0.0000	8.4094
Total	**4.1800e-003**	**0.0157**	**0.0355**	**1.2000e-004**	**0.0101**	**1.3000e-004**	**0.0102**	**2.7000e-003**	**1.3000e-004**	**2.8200e-003**	**0.0000**	**11.3147**	**11.3147**	**4.3000e-004**	**0.0000**	**11.3256**

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	0.0420	0.4095	0.3346	6.5000e-004		0.0226	0.0226		0.0213	0.0213	0.0000	56.4535	56.4535	0.0143	0.0000	56.8111
Total	**0.0420**	**0.4095**	**0.3346**	**6.5000e-004**		**0.0226**	**0.0226**		**0.0213**	**0.0213**	**0.0000**	**56.4535**	**56.4535**	**0.0143**	**0.0000**	**56.8111**

3.4 Building Construction II - 2020

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	4.0000e-004	0.0128	3.2200e-003	3.0000e-005	7.5000e-004	6.0000e-005	8.1000e-004	2.2000e-004	6.0000e-005	2.8000e-004	0.0000	2.9113	2.9113	1.9000e-004	0.0000	2.9162
Worker	3.7800e-003	2.9100e-003	0.0323	9.0000e-005	9.3300e-003	7.0000e-005	9.4000e-003	2.4800e-003	7.0000e-005	2.5400e-003	0.0000	8.4034	8.4034	2.4000e-004	0.0000	8.4094
Total	**4.1800e-003**	**0.0157**	**0.0355**	**1.2000e-004**	**0.0101**	**1.3000e-004**	**0.0102**	**2.7000e-003**	**1.3000e-004**	**2.8200e-003**	**0.0000**	**11.3147**	**11.3147**	**4.3000e-004**	**0.0000**	**11.3256**

3.4 Building Construction II - 2021

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	0.2436	2.3572	2.1160	4.1500e-003		0.1253	0.1253		0.1180	0.1180	0.0000	362.2113	362.2113	0.0911	0.0000	364.4895
Total	**0.2436**	**2.3572**	**2.1160**	**4.1500e-003**		**0.1253**	**0.1253**		**0.1180**	**0.1180**	**0.0000**	**362.2113**	**362.2113**	**0.0911**	**0.0000**	**364.4895**

3.4 Building Construction II - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0742	0.0188	1.9000e-004	4.8100e-003	1.5000e-004	4.9600e-003	1.3900e-003	1.4000e-004	1.5300e-003	0.0000	18.5261	18.5261	1.1900e-003	0.0000	18.5560
Worker	0.0227	0.0168	0.1902	5.8000e-004	0.0598	4.5000e-004	0.0602	0.0159	4.2000e-004	0.0163	0.0000	52.1375	52.1375	1.4000e-003	0.0000	52.1726
Total	**0.0248**	**0.0910**	**0.2090**	**7.7000e-004**	**0.0646**	**6.0000e-004**	**0.0652**	**0.0173**	**5.6000e-004**	**0.0178**	**0.0000**	**70.6637**	**70.6637**	**2.5900e-003**	**0.0000**	**70.7286**

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	0.2436	2.3572	2.1160	4.1500e-003		0.1253	0.1253		0.1180	0.1180	0.0000	362.2109	362.2109	0.0911	0.0000	364.4891
Total	**0.2436**	**2.3572**	**2.1160**	**4.1500e-003**		**0.1253**	**0.1253**		**0.1180**	**0.1180**	**0.0000**	**362.2109**	**362.2109**	**0.0911**	**0.0000**	**364.4891**

3.4 Building Construction II - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0742	0.0188	1.9000e-004	4.8100e-003	1.5000e-004	4.9600e-003	1.3900e-003	1.4000e-004	1.5300e-003	0.0000	18.5261	18.5261	1.1900e-003	0.0000	18.5560
Worker	0.0227	0.0168	0.1902	5.8000e-004	0.0598	4.5000e-004	0.0602	0.0159	4.2000e-004	0.0163	0.0000	52.1375	52.1375	1.4000e-003	0.0000	52.1726
Total	**0.0248**	**0.0910**	**0.2090**	**7.7000e-004**	**0.0646**	**6.0000e-004**	**0.0652**	**0.0173**	**5.6000e-004**	**0.0178**	**0.0000**	**70.6637**	**70.6637**	**2.5900e-003**	**0.0000**	**70.7286**

3.5 Coating II - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**0.4108**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.5 Coating II - 2021

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	3.1000e-004	2.3000e-004	2.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7175	0.7175	2.0000e-005	0.0000	0.7180
Total	**3.1000e-004**	**2.3000e-004**	**2.6200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7175**	**0.7175**	**2.0000e-005**	**0.0000**	**0.7180**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4091					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0115	0.0136	2.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	1.9149	1.9149	1.3000e-004	0.0000	1.9182
Total	**0.4108**	**0.0115**	**0.0136**	**2.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.3000e-004**	**0.0000**	**1.9182**

3.5 Coating II - 2021

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	3.1000e-004	2.3000e-004	2.6200e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7175	0.7175	2.0000e-005	0.0000	0.7180
Total	**3.1000e-004**	**2.3000e-004**	**2.6200e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7175**	**0.7175**	**2.0000e-005**	**0.0000**	**0.7180**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	0.0273	0.2725	0.2216	5.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	44.9335	44.9335	0.0145	0.0000	45.2968
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0273**	**0.2725**	**0.2216**	**5.1000e-004**		**0.0121**	**0.0121**		**0.0112**	**0.0112**	**0.0000**	**44.9335**	**44.9335**	**0.0145**	**0.0000**	**45.2968**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	3.1200e-003	2.3100e-003	0.0262	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.1749	7.1749	1.9000e-004	0.0000	7.1797
Total	**3.1200e-003**	**2.3100e-003**	**0.0262**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.1749**	**7.1749**	**1.9000e-004**	**0.0000**	**7.1797**

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	0.0273	0.2725	0.2216	5.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	44.9335	44.9335	0.0145	0.0000	45.2968
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0273**	**0.2725**	**0.2216**	**5.1000e-004**		**0.0121**	**0.0121**		**0.0112**	**0.0112**	**0.0000**	**44.9335**	**44.9335**	**0.0145**	**0.0000**	**45.2968**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	3.1200e-003	2.3100e-003	0.0262	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.1749	7.1749	1.9000e-004	0.0000	7.1797
Total	**3.1200e-003**	**2.3100e-003**	**0.0262**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.1749**	**7.1749**	**1.9000e-004**	**0.0000**	**7.1797**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	0.0102	0.0955	0.0935	2.2000e-004		4.2000e-003	4.2000e-003		3.8600e-003	3.8600e-003	0.0000	19.4790	19.4790	6.3000e-003	0.0000	19.6365
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0102**	**0.0955**	**0.0935**	**2.2000e-004**		**4.2000e-003**	**4.2000e-003**		**3.8600e-003**	**3.8600e-003**	**0.0000**	**19.4790**	**19.4790**	**6.3000e-003**	**0.0000**	**19.6365**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	1.2700e-003	9.1000e-004	0.0105	3.0000e-005	3.5700e-003	3.0000e-005	3.5900e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.9978	2.9978	8.0000e-005	0.0000	2.9997
Total	**1.2700e-003**	**9.1000e-004**	**0.0105**	**3.0000e-005**	**3.5700e-003**	**3.0000e-005**	**3.5900e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.9978**	**2.9978**	**8.0000e-005**	**0.0000**	**2.9997**

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	0.0102	0.0955	0.0935	2.2000e-004		4.2000e-003	4.2000e-003		3.8600e-003	3.8600e-003	0.0000	19.4790	19.4790	6.3000e-003	0.0000	19.6365
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0102**	**0.0955**	**0.0935**	**2.2000e-004**		**4.2000e-003**	**4.2000e-003**		**3.8600e-003**	**3.8600e-003**	**0.0000**	**19.4790**	**19.4790**	**6.3000e-003**	**0.0000**	**19.6365**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	1.2700e-003	9.1000e-004	0.0105	3.0000e-005	3.5700e-003	3.0000e-005	3.5900e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.9978	2.9978	8.0000e-005	0.0000	2.9997
Total	**1.2700e-003**	**9.1000e-004**	**0.0105**	**3.0000e-005**	**3.5700e-003**	**3.0000e-005**	**3.5900e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.9978**	**2.9978**	**8.0000e-005**	**0.0000**	**2.9997**

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	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331
Unmitigated	0.1559	0.8757	2.3360	8.6500e-003	0.7220	7.0100e-003	0.7290	0.1935	6.5500e-003	0.2000	0.0000	798.0796	798.0796	0.0381	0.0000	799.0331

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	568.84	192.85	78.99	1,901,120	1,901,120
Total	568.84	192.85	78.99	1,901,120	1,901,120

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
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	149.4555	149.4555	3.5300e-003	7.3000e-004	149.7614
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	149.4555	149.4555	3.5300e-003	7.3000e-004	149.7614
NaturalGas Mitigated	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
NaturalGas Unmitigated	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582

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					
High School	461211	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
Total		**2.4900e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**24.6120**	**24.6120**	**4.7000e-004**	**4.5000e-004**	**24.7582**

5.2 Energy by Land Use - NaturalGas

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					
High School	461211	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6120	24.6120	4.7000e-004	4.5000e-004	24.7582
Total		**2.4900e-003**	**0.0226**	**0.0190**	**1.4000e-004**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**24.6120**	**24.6120**	**4.7000e-004**	**4.5000e-004**	**24.7582**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	268341	149.4555	3.5300e-003	7.3000e-004	149.7614
Total		**149.4555**	**3.5300e-003**	**7.3000e-004**	**149.7614**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	268341	149.4555	3.5300e-003	7.3000e-004	149.7614
Total		**149.4555**	**3.5300e-003**	**7.3000e-004**	**149.7614**

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	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Unmitigated	0.1595	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Total	**0.1595**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1700e-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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1700e-003
Total	**0.1595**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	68.8223	0.0971	2.5900e-003	72.0209
Unmitigated	68.8223	0.0971	2.5900e-003	72.0209

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	2.93097 / 7.53679	68.8223	0.0971	2.5900e-003	72.0209
Total		**68.8223**	**0.0971**	**2.5900e-003**	**72.0209**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	2.93097 / 7.53679	68.8223	0.0971	2.5900e-003	72.0209
Total		**68.8223**	**0.0971**	**2.5900e-003**	**72.0209**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.2932	1.3766	0.0000	57.7080
Unmitigated	23.2932	1.3766	0.0000	57.7080

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	114.75	23.2932	1.3766	0.0000	57.7080
Total		**23.2932**	**1.3766**	**0.0000**	**57.7080**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	114.75	23.2932	1.3766	0.0000	57.7080
Total		**23.2932**	**1.3766**	**0.0000**	**57.7080**

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

LAUSD Grant High School

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	44.13	1000sqft	1.01	44,135.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2021
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 - g

Land Use - g

Construction Phase - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Demolition - g

Architectural Coating - g

Energy Use -

Trips and VMT - g

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	22,068.00	44,135.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	66,203.00	132,405.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Nonresidential_Exterior	22068	0
tblAreaCoating	Area_Nonresidential_Interior	66203	0
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	200.00	262.00
tblConstructionPhase	NumDays	20.00	45.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	45.00
tblLandUse	BuildingSpaceSquareFeet	44,130.00	44,135.00

LAUSD Grant High School - South Coast Air Basin, Winter

tblLandUse	LandUseSquareFeet	44,130.00	44,135.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Building Construction I
tblOffRoadEquipment	PhaseName		Site Prep I

tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work I
tblOffRoadEquipment	PhaseName		Site Prep I
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	57.37	114.75
tblTripsAndVMT	HaulingTripNumber	199.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	19.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	4.00	50.00
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblWater	IndoorWaterUseRate	1,465,320.76	2,930,973.57
tblWater	OutdoorWaterUseRate	3,767,967.68	7,536,789.19

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					
2019	3.0570	27.3589	22.2327	0.0494	1.5322	1.5334	2.7839	0.2993	1.4437	1.6048	0.0000	4,842.6006	4,842.6006	1.1807	0.0000	4,867.7812
2020	55.0398	24.9918	21.7277	0.0452	0.6037	1.3397	1.9434	0.1611	1.2611	1.4222	0.0000	4,382.7453	4,382.7453	1.0712	0.0000	4,406.6418
Maximum	**55.0398**	**27.3589**	**22.2327**	**0.0494**	**1.5322**	**1.5334**	**2.7839**	**0.2993**	**1.4437**	**1.6048**	**0.0000**	**4,842.6006**	**4,842.6006**	**1.1807**	**0.0000**	**4,867.7812**

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					
2019	3.0570	27.3589	22.2327	0.0494	1.5322	1.5334	2.7839	0.2993	1.4437	1.6048	0.0000	4,842.6006	4,842.6006	1.1807	0.0000	4,867.7812
2020	55.0398	24.9918	21.7277	0.0452	0.6037	1.3397	1.9434	0.1611	1.2611	1.4222	0.0000	4,382.7453	4,382.7453	1.0712	0.0000	4,406.6418
Maximum	**55.0398**	**27.3589**	**22.2327**	**0.0494**	**1.5322**	**1.5334**	**2.7839**	**0.2993**	**1.4437**	**1.6048**	**0.0000**	**4,842.6006**	**4,842.6006**	**1.1807**	**0.0000**	**4,867.7812**

	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**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Energy	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Mobile	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Total	**2.0059**	**6.1575**	**16.2340**	**0.0607**	**5.1632**	**0.0588**	**5.2221**	**1.3814**	**0.0556**	**1.4369**		**6,247.0518**	**6,247.0518**	**0.2990**	**2.7300e-003**	**6,255.3389**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Energy	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Mobile	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Total	**2.0059**	**6.1575**	**16.2340**	**0.0607**	**5.1632**	**0.0588**	**5.2221**	**1.3814**	**0.0556**	**1.4369**		**6,247.0518**	**6,247.0518**	**0.2990**	**2.7300e-003**	**6,255.3389**

	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/Interim Housing I	Demolition	1/3/2019	3/6/2019	5	45	
2	Site Prep I	Site Preparation	3/7/2019	5/8/2019	5	45	
3	Building Construction I	Building Construction	5/9/2019	5/8/2020	5	262	
4	Asphalt Paving and Off-Site Street Work I	Paving	5/9/2020	7/10/2020	5	45	
5	Coating I	Architectural Coating	7/11/2020	7/31/2020	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 132,405; Non-Residential Outdoor: 44,135; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

LAUSD Grant High School - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Interim Housing I	Air Compressors	2	8.00	78	0.48
Demolition/Interim Housing I	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Interim Housing I	Excavators	1	8.00	158	0.38
Demolition/Interim Housing I	Off-Highway Trucks	1	8.00	402	0.38
Demolition/Interim Housing I	Rubber Tired Loaders	1	8.00	203	0.38
Demolition/Interim Housing I	Skid Steer Loaders	1	8.00	65	0.40
Site Prep I	Excavators	1	8.00	158	0.38
Site Prep I	Off-Highway Trucks	1	8.00	402	0.38
Site Prep I	Plate Compactors	1	8.00	8	0.37
Site Prep I	Rollers	2	8.00	80	0.38
Site Prep I	Rubber Tired Loaders	1	8.00	203	0.36
Site Prep I	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Prep I	Trenchers	1	8.00	78	0.50
Building Construction I	Air Compressors	1	8.00	78	0.48
Building Construction I	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction I	Cranes	1	8.00	231	0.29
Building Construction I	Forklifts	4	8.00	89	0.20
Building Construction I	Pumps	1	8.00	84	0.74
Building Construction I	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Coating I	Air Compressors	1	6.00	78	0.48
Asphalt Paving and Off-Site Street Work I	Off-Highway Trucks	1	8.00	402	0.38
Asphalt Paving and Off-Site Street Work I	Pavers	2	8.00	130	0.42
Asphalt Paving and Off-Site Street Work I	Rollers	2	8.00	80	0.38
Asphalt Paving and Off-Site Street Work I	Rubber Tired Loaders	1	8.00	203	0.36

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition/Interim Housing I	7	50.00	0.00	20.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Site Prep I	8	50.00	0.00	35.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Building Construction I	10	50.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Coating I	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving and Off-Site Street Work I	6	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition/Interim Housing I - 2019

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					0.9548	0.0000	0.9548	0.1446	0.0000	0.1446			0.0000			0.0000
Off-Road	2.8004	25.2223	19.8172	0.0422		1.2426	1.2426		1.1932	1.1932		4,108.3019	4,108.3019	0.9693		4,132.5343
Total	**2.8004**	**25.2223**	**19.8172**	**0.0422**	**0.9548**	**1.2426**	**2.1974**	**0.1446**	**1.1932**	**1.3378**		**4,108.3019**	**4,108.3019**	**0.9693**		**4,132.5343**

3.2 Demolition/Interim Housing I - 2019

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	3.8100e-003	0.0971	0.0254	2.8000e-004	8.2200e-003	9.5000e-004	9.1700e-003	2.3600e-003	9.1000e-004	3.2700e-003		29.9913	29.9913	1.5500e-003		30.0302
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	0.2528	0.7476	2.0509	6.9400e-003	0.5692	8.1400e-003	0.5773	0.1524	7.6600e-003	0.1600		704.3074	704.3074	0.0364		705.2168
Total	**0.2566**	**0.8447**	**2.0763**	**7.2200e-003**	**0.5774**	**9.0900e-003**	**0.5865**	**0.1547**	**8.5700e-003**	**0.1633**		**734.2987**	**734.2987**	**0.0379**		**735.2469**

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					0.9548	0.0000	0.9548	0.1446	0.0000	0.1446			0.0000			0.0000
Off-Road	2.8004	25.2223	19.8172	0.0422		1.2426	1.2426		1.1932	1.1932	0.0000	4,108.3019	4,108.3019	0.9693		4,132.5343
Total	**2.8004**	**25.2223**	**19.8172**	**0.0422**	**0.9548**	**1.2426**	**2.1974**	**0.1446**	**1.1932**	**1.3378**	**0.0000**	**4,108.3019**	**4,108.3019**	**0.9693**		**4,132.5343**

3.2 Demolition/Interim Housing I - 2019

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	3.8100e-003	0.0971	0.0254	2.8000e-004	8.2200e-003	9.5000e-004	9.1700e-003	2.3600e-003	9.1000e-004	3.2700e-003		29.9913	29.9913	1.5500e-003		30.0302
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	0.2528	0.7476	2.0509	6.9400e-003	0.5692	8.1400e-003	0.5773	0.1524	7.6600e-003	0.1600		704.3074	704.3074	0.0364		705.2168
Total	**0.2566**	**0.8447**	**2.0763**	**7.2200e-003**	**0.5774**	**9.0900e-003**	**0.5865**	**0.1547**	**8.5700e-003**	**0.1633**		**734.2987**	**734.2987**	**0.0379**		**735.2469**

3.3 Site Prep I - 2019

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.5241	25.6505	17.8762	0.0368		1.3079	1.3079		1.2039	1.2039		3,628.0939	3,628.0939	1.1416		3,656.6335
Total	**2.5241**	**25.6505**	**17.8762**	**0.0368**	**0.0000**	**1.3079**	**1.3079**	**0.0000**	**1.2039**	**1.2039**		**3,628.0939**	**3,628.0939**	**1.1416**		**3,656.6335**

3.3 Site Prep I - 2019

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	6.6700e-003	0.1699	0.0445	4.9000e-004	0.0144	1.6600e-003	0.0161	4.1400e-003	1.5900e-003	5.7300e-003		52.4848	52.4848	2.7200e-003		52.5528
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	0.2528	0.7476	2.0509	6.9400e-003	0.5692	8.1400e-003	0.5773	0.1524	7.6600e-003	0.1600		704.3074	704.3074	0.0364		705.2168
Total	**0.2595**	**0.9175**	**2.0954**	**7.4300e-003**	**0.5836**	**9.8000e-003**	**0.5934**	**0.1565**	**9.2500e-003**	**0.1658**		**756.7922**	**756.7922**	**0.0391**		**757.7695**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.5241	25.6505	17.8762	0.0368		1.3079	1.3079		1.2039	1.2039	0.0000	3,628.0939	3,628.0939	1.1416		3,656.6335
Total	**2.5241**	**25.6505**	**17.8762**	**0.0368**	**0.0000**	**1.3079**	**1.3079**	**0.0000**	**1.2039**	**1.2039**	**0.0000**	**3,628.0939**	**3,628.0939**	**1.1416**		**3,656.6335**

3.3 Site Prep I - 2019

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	6.6700e-003	0.1699	0.0445	4.9000e-004	0.0144	1.6600e-003	0.0161	4.1400e-003	1.5900e-003	5.7300e-003		52.4848	52.4848	2.7200e-003		52.5528
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	0.2528	0.7476	2.0509	6.9400e-003	0.5692	8.1400e-003	0.5773	0.1524	7.6600e-003	0.1600		704.3074	704.3074	0.0364		705.2168
Total	**0.2595**	**0.9175**	**2.0954**	**7.4300e-003**	**0.5836**	**9.8000e-003**	**0.5934**	**0.1565**	**9.2500e-003**	**0.1658**		**756.7922**	**756.7922**	**0.0391**		**757.7695**

3.4 Building Construction I - 2019

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	2.7144	26.3677	19.9784	0.0380		1.5236	1.5236		1.4345	1.4345		3,717.1345	3,717.1345	0.9336		3,740.4737
Total	**2.7144**	**26.3677**	**19.9784**	**0.0380**		**1.5236**	**1.5236**		**1.4345**	**1.4345**		**3,717.1345**	**3,717.1345**	**0.9336**		**3,740.4737**

3.4 Building Construction I - 2019

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	0.0285	0.8045	0.2195	1.7500e-003	0.0448	5.4100e-003	0.0502	0.0129	5.1800e-003	0.0181		186.9973	186.9973	0.0138		187.3430
Worker	0.2666	0.1867	2.0349	5.5600e-003	0.5589	4.3700e-003	0.5633	0.1482	4.0300e-003	0.1523		553.5837	553.5837	0.0174		554.0176
Total	**0.2951**	**0.9912**	**2.2543**	**7.3100e-003**	**0.6037**	**9.7800e-003**	**0.6135**	**0.1611**	**9.2100e-003**	**0.1703**		**740.5809**	**740.5809**	**0.0312**		**741.3605**

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	2.7144	26.3677	19.9784	0.0380		1.5236	1.5236		1.4345	1.4345	0.0000	3,717.1345	3,717.1345	0.9336		3,740.4737
Total	**2.7144**	**26.3677**	**19.9784**	**0.0380**		**1.5236**	**1.5236**		**1.4345**	**1.4345**	**0.0000**	**3,717.1345**	**3,717.1345**	**0.9336**		**3,740.4737**

3.4 Building Construction I - 2019

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	0.0285	0.8045	0.2195	1.7500e-003	0.0448	5.4100e-003	0.0502	0.0129	5.1800e-003	0.0181		186.9973	186.9973	0.0138		187.3430
Worker	0.2666	0.1867	2.0349	5.5600e-003	0.5589	4.3700e-003	0.5633	0.1482	4.0300e-003	0.1523		553.5837	553.5837	0.0174		554.0176
Total	**0.2951**	**0.9912**	**2.2543**	**7.3100e-003**	**0.6037**	**9.7800e-003**	**0.6135**	**0.1611**	**9.2100e-003**	**0.1703**		**740.5809**	**740.5809**	**0.0312**		**741.3605**

3.4 Building Construction I - 2020

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	2.4720	24.0882	19.6810	0.0380		1.3318	1.3318		1.2536	1.2536		3,660.5555	3,660.5555	0.9274		3,683.7394
Total	**2.4720**	**24.0882**	**19.6810**	**0.0380**		**1.3318**	**1.3318**		**1.2536**	**1.2536**		**3,660.5555**	**3,660.5555**	**0.9274**		**3,683.7394**

3.4 Building Construction I - 2020

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	0.0243	0.7370	0.1987	1.7400e-003	0.0448	3.7000e-003	0.0485	0.0129	3.5400e-003	0.0164		185.7642	185.7642	0.0131		186.0907
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2710**	**0.9035**	**2.0466**	**7.1200e-003**	**0.6037**	**7.9600e-003**	**0.6117**	**0.1611**	**7.4700e-003**	**0.1686**		**722.1898**	**722.1898**	**0.0285**		**722.9024**

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	2.4720	24.0882	19.6810	0.0380		1.3318	1.3318		1.2536	1.2536	0.0000	3,660.5555	3,660.5555	0.9274		3,683.7394
Total	**2.4720**	**24.0882**	**19.6810**	**0.0380**		**1.3318**	**1.3318**		**1.2536**	**1.2536**	**0.0000**	**3,660.5555**	**3,660.5555**	**0.9274**		**3,683.7394**

3.4 Building Construction I - 2020

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	0.0243	0.7370	0.1987	1.7400e-003	0.0448	3.7000e-003	0.0485	0.0129	3.5400e-003	0.0164		185.7642	185.7642	0.0131		186.0907
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2710**	**0.9035**	**2.0466**	**7.1200e-003**	**0.6037**	**7.9600e-003**	**0.6117**	**0.1611**	**7.4700e-003**	**0.1686**		**722.1898**	**722.1898**	**0.0285**		**722.9024**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

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	1.9788	20.5152	15.0288	0.0341		0.9153	0.9153		0.8421	0.8421		3,302.4590	3,302.4590	1.0681		3,329.1610
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9788**	**20.5152**	**15.0288**	**0.0341**		**0.9153**	**0.9153**		**0.8421**	**0.8421**		**3,302.4590**	**3,302.4590**	**1.0681**		**3,329.1610**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

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	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623
Total	**0.0493**	**0.0333**	**0.3696**	**1.0800e-003**	**0.1118**	**8.5000e-004**	**0.1126**	**0.0296**	**7.9000e-004**	**0.0304**		**107.2851**	**107.2851**	**3.0900e-003**		**107.3623**

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	1.9788	20.5152	15.0288	0.0341		0.9153	0.9153		0.8421	0.8421	0.0000	3,302.4590	3,302.4590	1.0681		3,329.1610
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9788**	**20.5152**	**15.0288**	**0.0341**		**0.9153**	**0.9153**		**0.8421**	**0.8421**	**0.0000**	**3,302.4590**	**3,302.4590**	**1.0681**		**3,329.1610**

3.5 Asphalt Paving and Off-Site Street Work I - 2020

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	0.0493	0.0333	0.3696	1.0800e-003	0.1118	8.5000e-004	0.1126	0.0296	7.9000e-004	0.0304		107.2851	107.2851	3.0900e-003		107.3623
Total	**0.0493**	**0.0333**	**0.3696**	**1.0800e-003**	**0.1118**	**8.5000e-004**	**0.1126**	**0.0296**	**7.9000e-004**	**0.0304**		**107.2851**	**107.2851**	**3.0900e-003**		**107.3623**

3.6 Coating I - 2020

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	54.5509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**54.7930**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Coating I - 2020

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	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

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	54.5509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**54.7930**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.6 Coating I - 2020

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	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

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	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Unmitigated	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	568.84	192.85	78.99	1,901,120	1,901,120
Total	568.84	192.85	78.99	1,901,120	1,901,120

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
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
NaturalGas Unmitigated	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412

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					
High School	1263.59	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Total		**0.0136**	**0.1239**	**0.1041**	**7.4000e-004**		**9.4100e-003**	**9.4100e-003**		**9.4100e-003**	**9.4100e-003**		**148.6578**	**148.6578**	**2.8500e-003**	**2.7300e-003**	**149.5412**

5.2 Energy by Land Use - NaturalGas

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					
High School	1.26359	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Total		**0.0136**	**0.1239**	**0.1041**	**7.4000e-004**		**9.4100e-003**	**9.4100e-003**		**9.4100e-003**	**9.4100e-003**		**148.6578**	**148.6578**	**2.8500e-003**	**2.7300e-003**	**149.5412**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Unmitigated	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Total	**0.8743**	**4.0000e-005**	**4.5200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.6600e-003**	**9.6600e-003**	**3.0000e-005**		**0.0103**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Total	**0.8743**	**4.0000e-005**	**4.5200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.6600e-003**	**9.6600e-003**	**3.0000e-005**		**0.0103**

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

LAUSD Grant High School

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	44.13	1000sqft	1.01	44,135.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	12			**Operational Year**	2021
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 - g

Land Use - g

Construction Phase - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Off-road Equipment - g

Demolition - g

Architectural Coating - g

Energy Use -

Trips and VMT - g

Grading -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	22,068.00	44,135.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	66,203.00	132,405.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_Nonresidential_Exterior	22068	0
tblAreaCoating	Area_Nonresidential_Interior	66203	0
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	200.00	252.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	2.00	45.00

tblGrading	MaterialExported	0.00	22,050.00
tblLandUse	BuildingSpaceSquareFeet	44,130.00	44,135.00
tblLandUse	LandUseSquareFeet	44,130.00	44,135.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.36	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.40
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Asphalt Paving and Off-Site Street Work II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Building Construction II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	PhaseName		Demolition/Interim Housing II
tblOffRoadEquipment	PhaseName		Site Prep II
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	57.37	114.75
tblTripsAndVMT	HaulingTripNumber	199.00	20.00
tblTripsAndVMT	HaulingTripNumber	0.00	35.00
tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix

tblTripsAndVMT	HaulingVehicleClass	HHDT	HDT_Mix
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	19.00	50.00
tblTripsAndVMT	WorkerTripNumber	4.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	50.00
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass	LD_Mix	EMFAC_Mix
tblWater	IndoorWaterUseRate	1,465,320.76	2,930,973.57
tblWater	OutdoorWaterUseRate	3,767,967.68	7,536,789.19

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					
2020	2.8268	24.9918	21.7277	0.0492	1.5770	1.3397	2.6728	0.3061	1.2611	1.4222	0.0000	4,767.4243	4,767.4243	1.1778	0.0000	4,792.2862
2021	57.3024	24.0015	23.4504	0.0490	0.7155	1.2504	1.9658	0.1908	1.1822	1.3730	0.0000	4,751.7248	4,751.7248	1.0819	0.0000	4,775.9787
2022	1.7830	14.8236	15.9472	0.0391	0.5589	0.6498	1.2087	0.1482	0.5978	0.7461	0.0000	3,803.8625	3,803.8625	1.0810	0.0000	3,830.8872
Maximum	**57.3024**	**24.9918**	**23.4504**	**0.0492**	**1.5770**	**1.3397**	**2.6728**	**0.3061**	**1.2611**	**1.4222**	**0.0000**	**4,767.4243**	**4,767.4243**	**1.1778**	**0.0000**	**4,792.2862**

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					
2020	2.8268	24.9918	21.7277	0.0492	1.5770	1.3397	2.6728	0.3061	1.2611	1.4222	0.0000	4,767.4243	4,767.4243	1.1778	0.0000	4,792.2862
2021	57.3024	24.0015	23.4504	0.0490	0.7155	1.2504	1.9658	0.1908	1.1822	1.3730	0.0000	4,751.7248	4,751.7248	1.0819	0.0000	4,775.9787
2022	1.7830	14.8236	15.9472	0.0391	0.5589	0.6498	1.2087	0.1482	0.5978	0.7461	0.0000	3,803.8625	3,803.8625	1.0810	0.0000	3,830.8872
Maximum	**57.3024**	**24.9918**	**23.4504**	**0.0492**	**1.5770**	**1.3397**	**2.6728**	**0.3061**	**1.2611**	**1.4222**	**0.0000**	**4,767.4243**	**4,767.4243**	**1.1778**	**0.0000**	**4,792.2862**

LAUSD Grant High School - South Coast Air Basin, Winter

	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**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Energy	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Mobile	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Total	**2.0059**	**6.1575**	**16.2340**	**0.0607**	**5.1632**	**0.0588**	**5.2221**	**1.3814**	**0.0556**	**1.4369**		**6,247.0518**	**6,247.0518**	**0.2990**	**2.7300e-003**	**6,255.3389**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Energy	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Mobile	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Total	**2.0059**	**6.1575**	**16.2340**	**0.0607**	**5.1632**	**0.0588**	**5.2221**	**1.3814**	**0.0556**	**1.4369**		**6,247.0518**	**6,247.0518**	**0.2990**	**2.7300e-003**	**6,255.3389**

	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/Interim Housing II	Demolition	7/13/2020	9/9/2020	5	43	
2	Site Prep II	Site Preparation	9/14/2020	11/13/2020	5	45	
3	Building Construction II	Building Construction	11/16/2020	11/2/2021	5	252	
4	Coating II	Architectural Coating	10/13/2021	11/2/2021	5	15	
5	Asphalt Paving and Off-Site Street Work II	Paving	11/22/2021	1/19/2022	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 132,405; Non-Residential Outdoor: 44,135; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

LAUSD Grant High School - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition/Interim Housing II	Air Compressors	2	8.00	78	0.48
Demolition/Interim Housing II	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition/Interim Housing II	Excavators	1	8.00	158	0.38
Demolition/Interim Housing II	Off-Highway Trucks	1	8.00	402	0.38
Demolition/Interim Housing II	Rubber Tired Loaders	1	8.00	203	0.38
Demolition/Interim Housing II	Skid Steer Loaders	1	8.00	65	0.40
Site Prep II	Excavators	1	8.00	158	0.38
Site Prep II	Off-Highway Trucks	1	8.00	402	0.38
Site Prep II	Plate Compactors	1	8.00	8	0.37
Site Prep II	Rollers	2	8.00	80	0.38
Site Prep II	Rubber Tired Loaders	1	8.00	203	0.36
Site Prep II	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Prep II	Trenchers	1	8.00	78	0.50
Building Construction II	Air Compressors	1	8.00	78	0.48
Building Construction II	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction II	Cranes	1	8.00	231	0.29
Building Construction II	Forklifts	4	8.00	89	0.20
Building Construction II	Pumps	1	8.00	84	0.74
Building Construction II	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Asphalt Paving and Off-Site Street Work II	Off-Highway Trucks	1	8.00	402	0.38
Asphalt Paving and Off-Site Street Work II	Pavers	2	8.00	130	0.42
Asphalt Paving and Off-Site Street Work II	Rollers	2	8.00	80	0.38
Asphalt Paving and Off-Site Street Work II	Rubber Tired Loaders	1	8.00	203	0.36
Coating II	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition/Interim Housing II	7	50.00	0.00	20.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Site Prep II	8	50.00	0.00	35.00	14.70	6.90	20.00	EMFAC_Mix	HDT_Mix	HDT_Mix
Building Construction II	10	50.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt Paving and Off-Site Street Work II	7	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Coating II	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition/Interim Housing II - 2020

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					0.9992	0.0000	0.9992	0.1513	0.0000	0.1513			0.0000			0.0000
Off-Road	2.5882	22.8278	19.5430	0.0421		1.0882	1.0882		1.0441	1.0441		4,048.9772	4,048.9772	0.9591		4,072.9543
Total	**2.5882**	**22.8278**	**19.5430**	**0.0421**	**0.9992**	**1.0882**	**2.0874**	**0.1513**	**1.0441**	**1.1953**		**4,048.9772**	**4,048.9772**	**0.9591**		**4,072.9543**

3.2 Demolition/Interim Housing II - 2020

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	3.3500e-003	0.0902	0.0239	2.9000e-004	8.6000e-003	6.8000e-004	9.2800e-003	2.4700e-003	6.5000e-004	3.1300e-003		31.1440	31.1440	1.5600e-003		31.1830
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	0.2352	0.6840	1.8785	6.7600e-003	0.5692	6.9700e-003	0.5762	0.1524	6.5400e-003	0.1589		687.3031	687.3031	0.0338		688.1490
Total	**0.2385**	**0.7742**	**1.9024**	**7.0500e-003**	**0.5778**	**7.6500e-003**	**0.5854**	**0.1548**	**7.1900e-003**	**0.1620**		**718.4471**	**718.4471**	**0.0354**		**719.3320**

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					0.9992	0.0000	0.9992	0.1513	0.0000	0.1513			0.0000			0.0000
Off-Road	2.5882	22.8278	19.5430	0.0421		1.0882	1.0882		1.0441	1.0441	0.0000	4,048.9772	4,048.9772	0.9591		4,072.9543
Total	**2.5882**	**22.8278**	**19.5430**	**0.0421**	**0.9992**	**1.0882**	**2.0874**	**0.1513**	**1.0441**	**1.1953**	**0.0000**	**4,048.9772**	**4,048.9772**	**0.9591**		**4,072.9543**

3.2 Demolition/Interim Housing II - 2020

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	3.3500e-003	0.0902	0.0239	2.9000e-004	8.6000e-003	6.8000e-004	9.2800e-003	2.4700e-003	6.5000e-004	3.1300e-003		31.1440	31.1440	1.5600e-003		31.1830
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	0.2352	0.6840	1.8785	6.7600e-003	0.5692	6.9700e-003	0.5762	0.1524	6.5400e-003	0.1589		687.3031	687.3031	0.0338		688.1490
Total	**0.2385**	**0.7742**	**1.9024**	**7.0500e-003**	**0.5778**	**7.6500e-003**	**0.5854**	**0.1548**	**7.1900e-003**	**0.1620**		**718.4471**	**718.4471**	**0.0354**		**719.3320**

3.3 Site Prep II - 2020

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					0.0554	0.0000	0.0554	8.3900e-003	0.0000	8.3900e-003			0.0000			0.0000
Off-Road	2.3622	23.4252	17.5972	0.0368		1.1847	1.1847		1.0906	1.0906		3,549.2821	3,549.2821	1.1414		3,577.8170
Total	**2.3622**	**23.4252**	**17.5972**	**0.0368**	**0.0554**	**1.1847**	**1.2402**	**8.3900e-003**	**1.0906**	**1.0990**		**3,549.2821**	**3,549.2821**	**1.1414**		**3,577.8170**

3.3 Site Prep II - 2020

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	5.5900e-003	0.1508	0.0400	4.9000e-004	0.0144	1.1400e-003	0.0155	4.1400e-003	1.0900e-003	5.2300e-003		52.0798	52.0798	2.6000e-003		52.1448
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	0.2352	0.6840	1.8785	6.7600e-003	0.5692	6.9700e-003	0.5762	0.1524	6.5400e-003	0.1589		687.3031	687.3031	0.0338		688.1490
Total	**0.2408**	**0.8349**	**1.9185**	**7.2500e-003**	**0.5836**	**8.1100e-003**	**0.5917**	**0.1565**	**7.6300e-003**	**0.1641**		**739.3829**	**739.3829**	**0.0364**		**740.2938**

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					0.0554	0.0000	0.0554	8.3900e-003	0.0000	8.3900e-003			0.0000			0.0000
Off-Road	2.3622	23.4252	17.5972	0.0368		1.1847	1.1847		1.0906	1.0906	0.0000	3,549.2821	3,549.2821	1.1414		3,577.8170
Total	**2.3622**	**23.4252**	**17.5972**	**0.0368**	**0.0554**	**1.1847**	**1.2402**	**8.3900e-003**	**1.0906**	**1.0990**	**0.0000**	**3,549.2821**	**3,549.2821**	**1.1414**		**3,577.8170**

3.3 Site Prep II - 2020

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	5.5900e-003	0.1508	0.0400	4.9000e-004	0.0144	1.1400e-003	0.0155	4.1400e-003	1.0900e-003	5.2300e-003		52.0798	52.0798	2.6000e-003		52.1448
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	0.2352	0.6840	1.8785	6.7600e-003	0.5692	6.9700e-003	0.5762	0.1524	6.5400e-003	0.1589		687.3031	687.3031	0.0338		688.1490
Total	**0.2408**	**0.8349**	**1.9185**	**7.2500e-003**	**0.5836**	**8.1100e-003**	**0.5917**	**0.1565**	**7.6300e-003**	**0.1641**		**739.3829**	**739.3829**	**0.0364**		**740.2938**

3.4 Building Construction II - 2020

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	2.4720	24.0882	19.6810	0.0380		1.3318	1.3318		1.2536	1.2536		3,660.5555	3,660.5555	0.9274		3,683.7394
Total	**2.4720**	**24.0882**	**19.6810**	**0.0380**		**1.3318**	**1.3318**		**1.2536**	**1.2536**		**3,660.5555**	**3,660.5555**	**0.9274**		**3,683.7394**

3.4 Building Construction II - 2020

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	0.0243	0.7370	0.1987	1.7400e-003	0.0448	3.7000e-003	0.0485	0.0129	3.5400e-003	0.0164		185.7642	185.7642	0.0131		186.0907
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2710**	**0.9035**	**2.0466**	**7.1200e-003**	**0.6037**	**7.9600e-003**	**0.6117**	**0.1611**	**7.4700e-003**	**0.1686**		**722.1898**	**722.1898**	**0.0285**		**722.9024**

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	2.4720	24.0882	19.6810	0.0380		1.3318	1.3318		1.2536	1.2536	0.0000	3,660.5555	3,660.5555	0.9274		3,683.7394
Total	**2.4720**	**24.0882**	**19.6810**	**0.0380**		**1.3318**	**1.3318**		**1.2536**	**1.2536**	**0.0000**	**3,660.5555**	**3,660.5555**	**0.9274**		**3,683.7394**

3.4 Building Construction II - 2020

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	0.0243	0.7370	0.1987	1.7400e-003	0.0448	3.7000e-003	0.0485	0.0129	3.5400e-003	0.0164		185.7642	185.7642	0.0131		186.0907
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2710**	**0.9035**	**2.0466**	**7.1200e-003**	**0.6037**	**7.9600e-003**	**0.6117**	**0.1611**	**7.4700e-003**	**0.1686**		**722.1898**	**722.1898**	**0.0285**		**722.9024**

3.4 Building Construction II - 2021

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	2.2352	21.6260	19.4127	0.0381		1.1499	1.1499		1.0822	1.0822		3,663.0244	3,663.0244	0.9216		3,686.0635
Total	**2.2352**	**21.6260**	**19.4127**	**0.0381**		**1.1499**	**1.1499**		**1.0822**	**1.0822**		**3,663.0244**	**3,663.0244**	**0.9216**		**3,686.0635**

3.4 Building Construction II - 2021

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	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2513**	**0.8187**	**1.8803**	**6.9300e-003**	**0.6037**	**5.5500e-003**	**0.6092**	**0.1611**	**5.1600e-003**	**0.1663**		**703.4372**	**703.4372**	**0.0265**		**704.0994**

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	2.2352	21.6260	19.4127	0.0381		1.1499	1.1499		1.0822	1.0822	0.0000	3,663.0244	3,663.0244	0.9216		3,686.0635
Total	**2.2352**	**21.6260**	**19.4127**	**0.0381**		**1.1499**	**1.1499**		**1.0822**	**1.0822**	**0.0000**	**3,663.0244**	**3,663.0244**	**0.9216**		**3,686.0635**

3.4 Building Construction II - 2021

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	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2513**	**0.8187**	**1.8803**	**6.9300e-003**	**0.6037**	**5.5500e-003**	**0.6092**	**0.1611**	**5.1600e-003**	**0.1663**		**703.4372**	**703.4372**	**0.0265**		**704.0994**

3.5 Coating II - 2021

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	54.5509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**54.7698**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.5 Coating II - 2021

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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	**0.0461**	**0.0300**	**0.3399**	**1.0400e-003**	**0.1118**	**8.3000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**103.8151**	**103.8151**	**2.7900e-003**		**103.8849**

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	54.5509					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**54.7698**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

3.5 Coating II - 2021

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	0.0461	0.0300	0.3399	1.0400e-003	0.1118	8.3000e-004	0.1126	0.0296	7.6000e-004	0.0304		103.8151	103.8151	2.7900e-003		103.8849
Total	**0.0461**	**0.0300**	**0.3399**	**1.0400e-003**	**0.1118**	**8.3000e-004**	**0.1126**	**0.0296**	**7.6000e-004**	**0.0304**		**103.8151**	**103.8151**	**2.7900e-003**		**103.8849**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	1.8204	18.1657	14.7735	0.0341		0.8080	0.8080		0.7434	0.7434		3,302.0487	3,302.0487	1.0680		3,328.7474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8204**	**18.1657**	**14.7735**	**0.0341**		**0.8080**	**0.8080**		**0.7434**	**0.7434**		**3,302.0487**	**3,302.0487**	**1.0680**		**3,328.7474**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

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	1.8204	18.1657	14.7735	0.0341		0.8080	0.8080		0.7434	0.7434	0.0000	3,302.0487	3,302.0487	1.0680		3,328.7474
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8204**	**18.1657**	**14.7735**	**0.0341**		**0.8080**	**0.8080**		**0.7434**	**0.7434**	**0.0000**	**3,302.0487**	**3,302.0487**	**1.0680**		**3,328.7474**

3.6 Asphalt Paving and Off-Site Street Work II - 2021

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	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	1.5662	14.6883	14.3785	0.0341		0.6458	0.6458		0.5941	0.5941		3,303.3731	3,303.3731	1.0684		3,330.0826
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5662**	**14.6883**	**14.3785**	**0.0341**		**0.6458**	**0.6458**		**0.5941**	**0.5941**		**3,303.3731**	**3,303.3731**	**1.0684**		**3,330.0826**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

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	1.5662	14.6883	14.3785	0.0341		0.6458	0.6458		0.5941	0.5941	0.0000	3,303.3731	3,303.3731	1.0684		3,330.0826
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5662**	**14.6883**	**14.3785**	**0.0341**		**0.6458**	**0.6458**		**0.5941**	**0.5941**	**0.0000**	**3,303.3731**	**3,303.3731**	**1.0684**		**3,330.0826**

3.6 Asphalt Paving and Off-Site Street Work II - 2022

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	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

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	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874
Unmitigated	1.1180	6.0335	16.1254	0.0600	5.1632	0.0494	5.2126	1.3814	0.0461	1.4275		6,098.3844	6,098.3844	0.2961		6,105.7874

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	568.84	192.85	78.99	1,901,120	1,901,120
Total	568.84	192.85	78.99	1,901,120	1,901,120

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
High School	16.60	8.40	6.90	77.80	17.20	5.00	75	19	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
NaturalGas Unmitigated	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412

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					
High School	1263.59	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Total		**0.0136**	**0.1239**	**0.1041**	**7.4000e-004**		**9.4100e-003**	**9.4100e-003**		**9.4100e-003**	**9.4100e-003**		**148.6578**	**148.6578**	**2.8500e-003**	**2.7300e-003**	**149.5412**

5.2 Energy by Land Use - NaturalGas

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					
High School	1.26359	0.0136	0.1239	0.1041	7.4000e-004		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003		148.6578	148.6578	2.8500e-003	2.7300e-003	149.5412
Total		**0.0136**	**0.1239**	**0.1041**	**7.4000e-004**		**9.4100e-003**	**9.4100e-003**		**9.4100e-003**	**9.4100e-003**		**148.6578**	**148.6578**	**2.8500e-003**	**2.7300e-003**	**149.5412**

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	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Unmitigated	0.8743	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Total	**0.8743**	**4.0000e-005**	**4.5200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.6600e-003**	**9.6600e-003**	**3.0000e-005**		**0.0103**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.6600e-003	9.6600e-003	3.0000e-005		0.0103
Total	**0.8743**	**4.0000e-005**	**4.5200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.6600e-003**	**9.6600e-003**	**3.0000e-005**		**0.0103**

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

Appendix B

Biological Resources

B-1 - CDFW - California Natural Diversity Database (CNDDB) Query

B-2 - USFWS - Information for Planning and Conservation (IpaC) Query

B-3 - CNPS - Inventory of Rare and Endangered Plants Query (8th Edition)

B-4 - Grant High School Tree Inventory (2016)

Appendix B-1

CDFW – California Natural Diversity Database (CNDDB) Query

CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE **RareFind**

Query Summary:
BIOS Selection

Print Close

CNDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	ABPBX91091	218	1	None	None	G5T3	S3	null	CDFW_WL-Watch List	Chaparral, Coastal scrub
Anniella pulchra pulchra	silvery legless lizard	Reptiles	ARACC01012	101	2	None	None	G3G4T3T4Q	S3	null	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Chaparral, Coastal dunes, Coastal scrub
Antrozous pallidus	pallid bat	Mammals	AMACC10010	407	3	None	None	G5	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Arizona elegans occidentalis	California glossy snake	Reptiles	ARADB01017	260	2	None	None	G5T2	S2	null	CDFW_SSC-Species of Special Concern	null
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	ARACJ02143	128	2	None	None	G5T5	S3	null	CDFW_SSC-Species of Special Concern	null
Astragalus brauntonii	Braunton's milk-vetch	Dicots	PDFAB0F1G0	42	3	Endangered	None	G2	S2	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Coastal scrub, Limestone, Valley & foothill grassland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1937	1	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Atriplex parishii	Parish's brittlescale	Dicots	PDCHE041D0	16	1	None	None	G1G2	S1	1B.1	USFS_S-Sensitive	Alkali playa, Chenopod scrub, Meadow & seep, Vernal pool, Wetland
Berberis nevinii	Nevin's barberry	Dicots	PDBER060A0	31	5	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub
Bombus crotchii	Crotch bumble bee	Insects	IIHYM24480	233	5	None	None	G3G4	S1S2	null	null	null
Buteo swainsoni	Swainson's	Birds	ABNKC19070	2427	3	None	Threatened	G5	S3	null	BLM_S-	Great Basin

	hawk										Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
California Walnut Woodland	California Walnut Woodland	Woodland	CTT71210CA	76	8	None	None	G2	S2.1	null	null	Cismontane woodland
California macrophylla	round-leaved filaree	Dicots	PDGER01070	162	1	None	None	G3?	S3?	1B.2	BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden	Cismontane woodland, Valley & foothill grassland
Calochortus clavatus var. gracilis	slender mariposa-lily	Monocots	PMLIL0D096	105	2	None	None	G4T2T3	S2S3	1B.2	BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Calochortus plummerae	Plummer's mariposa-lily	Monocots	PMLIL0D150	230	11	None	None	G4	S4	4.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland
Calystegia felix	lucky morning-glory	Dicots	PDCON040P0	9	1	None	None	GHQ	SH	3.1	null	Meadow & seep, Riparian scrub
Carolella busckana	Busck's gallmoth	Insects	IILEM2X090	4	1	None	None	G1G3	SH	null	null	Coastal dunes, Coastal scrub
Catostomus santaanae	Santa Ana sucker	Fish	AFCJC02190	27	1	Threatened	None	G1	S1	null	AFS_TH-Threatened, IUCN_VU-Vulnerable	Aquatic, South coast flowing waters
Centromadia parryi ssp. australis	southern tarplant	Dicots	PDAST4R0P4	87	1	None	None	G3T2	S2	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Marsh & swamp, Salt marsh, Valley & foothill grassland, Vernal pool, Wetland
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Dicots	PDPGN040J1	21	4	Proposed Threatened	Endangered	G2T1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Coastal scrub, Valley & foothill grassland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	155	1	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive, USFWS_BCC-Birds of Conservation Concern	Riparian forest
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	625	1	None	None	G3G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland

Danaus plexippus pop. 1	monarch - California overwintering population	Insects	IILEPP2012	378	3	None	None	G4T2T3	S2S3	null	USFS_S-Sensitive	Closed-cone coniferous forest
Dodecahema leptoceras	slender-horned spineflower	Dicots	PDPGN0V010	38	4	Endangered	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, Cismontane woodland, Coastal scrub
Dudleya multicaulis	many-stemmed dudleya	Dicots	PDCRA040H0	147	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_RSABG-Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Valley & foothill grassland
Empidonax traillii extimus	southwestern willow flycatcher	Birds	ABPAE33043	70	1	Endangered	Endangered	G5T2	S1	null	NABCI_RWL-Red Watch List	Riparian woodland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1230	3	None	None	G3G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	294	3	None	None	G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Falco peregrinus anatum	American peregrine falcon	Birds	ABNKD06071	55	1	Delisted	Delisted	G4T4	S3S4	null	CDF_S-Sensitive, CDFW_FP-Fully Protected, USFWS_BCC-Birds of Conservation Concern	null
Gila orcuttii	arroyo chub	Fish	AFCJB13120	49	1	None	None	G2	S2	null	AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Aquatic, South coast flowing waters
Horkelia cuneata var. puberula	mesa horkelia	Dicots	PDROS0W045	103	6	None	None	G4T1	S1	1B.1	USFS_S-Sensitive	Chaparral, Cismontane woodland, Coastal scrub
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	138	2	None	None	G5	S3S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Lower montane coniferous forest, Oldgrowth, Riparian forest
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	235	7	None	None	G5	S4	null	IUCN_LC-Least Concern, WBWG_M-Medium Priority	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern,	Desert wash

											WBWG_H-High Priority	
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	AMAEB03051	102	1	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Malacothamnus davidsonii	Davidson's bush-mallow	Dicots	PDMAL0Q040	67	21	None	None	G2	S2	1B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Nama stenocarpa	mud nama	Dicots	PDHYD0A0H0	22	1	None	None	G4G5	S1S2	2B.2	null	Marsh & swamp, Wetland
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	AMAFF08041	116	2	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Nyctinomops macrotis	big free-tailed bat	Mammals	AMACD04020	32	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, WBWG_MH-Medium-High Priority	null
Onychomys torridus ramona	southern grasshopper mouse	Mammals	AMAFF06022	27	1	None	None	G5T3	S3	null	CDFW_SSC-Species of Special Concern	Chenopod scrub
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Mammals	AMAFD01041	51	1	None	None	G5T1T2	S1S2	null	CDFW_SSC-Species of Special Concern	Coastal scrub
Phrynosoma blainvillii	coast horned lizard	Reptiles	ARACF12100	755	6	None	None	G3G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland
Polioptila californica californica	coastal California gnatcatcher	Birds	ABPBJ08081	821	5	Threatened	None	G4G5T2Q	S2	null	CDFW_SSC-Species of Special Concern, NABCI_YWL-Yellow Watch List	Coastal bluff scrub, Coastal scrub
Pseudognaphalium leucocephalum	white rabbit-tobacco	Dicots	PDAST440C0	62	3	None	None	G4	S2	2B.2	null	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland
Rana muscosa	southern mountain yellow-legged frog	Amphibians	AAABH01330	186	1	Endangered	Endangered	G1	S1	null	CDFW_WL-Watch List, IUCN_EN-Endangered, USFS_S-Sensitive	Aquatic
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	Fish	AFCJB3705K	14	1	None	None	G5T1	S1	null	AFS_TH-Threatened, CDFW_SSC-Species of Special Concern, USFS_S-Sensitive	Aquatic, South coast flowing waters
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	Scrub	CTT32720CA	30	5	None	None	G1	S1.1	null	null	Coastal scrub
Socalchemmis gertschi	Gertsch's socalchemmis spider	Arachnids	ILARAU7010	3	1	None	None	G1	S1	null	null	Coastal scrub
Southern California Arroyo Chub/Santa Ana Sucker Stream	Southern California Arroyo Chub/Santa Ana Sucker Stream	Inland Waters	CARE2330CA	4	1	None	None	GNR	SNR	null	null	null

Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	Riparian	CTT61310CA	246	15	None	None	G4	S4	null	null	Riparian forest
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	Riparian	CTT61330CA	111	1	None	None	G3	S3.2	null	null	Riparian forest
Southern Mixed Riparian Forest	Southern Mixed Riparian Forest	Riparian	CTT61340CA	14	1	None	None	G2	S2.1	null	null	Riparian forest
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	Riparian	CTT62400CA	230	20	None	None	G4	S4	null	null	Riparian woodland
Symphyotrichum defoliatum	San Bernardino aster	Dicots	PDASTE80C0	76	1	None	None	G2	S2	1B.2	BLM_S-Sensitive, USFS_S-Sensitive	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland
Symphyotrichum greatae	Greata's aster	Dicots	PDASTE80U0	56	1	None	None	G2	S2	1B.3	BLM_S-Sensitive	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland
Taxidea taxus	American badger	Mammals	AMAJF04010	535	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub,

												Valley & foothill grassland
Thamnophis hammondii	two-striped gartersnake	Reptiles	ARADB36160	157	2	None	None	G4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Marsh & swamp, Riparian scrub, Riparian woodland, Wetland
Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	478	8	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened, NABCI_YWL-Yellow Watch List	Riparian forest, Riparian scrub, Riparian woodland

Appendix B-2

USFWS – Information For Planning And Conservation (IpaC) Query

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

Location

Los Angeles County, California

Local offices

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Ventura Fish And Wildlife Office

(805) 644-1766
(805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Not for consultation

Endangered species

This resource list is for informational purposes only and should not be used for planning or analyzing project level impacts.

Section 7 of the Endangered Species Act **requires** Federal agencies to *"request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action"* for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Review section in IPaC or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by creating a project and making a request from the Regulatory Review section.

Listed species[1] are managed by the Endangered Species Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

The following species are potentially affected by activities in this location:

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad Anaxyrus californicus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/3762	Endangered
California Red-legged Frog Rana draytonii There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/2891	Threatened

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8193	Endangered
California Least Tern Sterna antillarum browni **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher Polioptila californica californica There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/5945	Endangered
Light-footed Clapper Rail Rallus longirostris levipes **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/6035	Endangered
Marbled Murrelet Brachyramphus marmoratus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/4467	Threatened
Southwestern Willow Flycatcher Empidonax traillii extimus There is a **final** critical habitat designated for this species. Your location overlaps the designated critical habitat. http://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover Charadrius alexandrinus nivosus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8035	Threatened

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp Streptocephalus woottoni There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/498	Threatened

Not for Consultation

Fishes

NAME	STATUS
Santa Ana Sucker Catostomus santaanae There is a **final** critical habitat designated for this species. Your location overlaps the designated critical habitat. http://ecos.fws.gov/ecp/species/3785	Threatened
Tidewater Goby Eucyclogobius newberryi There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/57	Endangered

Flowering Plants

NAME	STATUS
Braunton's Milk-vetch Astragalus brauntonii There is a **final** critical habitat designated for this species. Your location overlaps the designated critical habitat. http://ecos.fws.gov/ecp/species/5674	Endangered
California Orcutt Grass Orcuttia californica **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/4923	Endangered
Coastal Dunes Milk-vetch Astragalus tener var. titi **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/7675	Endangered
Gambel's Watercress Rorippa gambellii **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/4201	Endangered
Lyon's Pentachaeta Pentachaeta lyonii There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/4699	Endangered
Marsh Sandwort Arenaria paludicola **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/2229	Endangered
Nevin's Barberry Berberis nevinii There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/8025	Endangered
Salt Marsh Bird's-beak Cordylanthus maritimus ssp. maritimus **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/6447	Endangered
San Fernando Valley Spineflower Chorizanthe parryi var. fernandina **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/8215	Proposed Threatened
Santa Monica Mountains Dudleyea Dudleya cymosa ssp. ovatifolia **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/2538	Threatened
Slender-horned Spineflower Dodecahema leptoceras **No critical habitat** has been designated for this species. http://ecos.fws.gov/ecp/species/4007	Endangered

Not for consultation

Spreading Navarretia Navarretia fossalis There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/1334	Threatened
Ventura Marsh Milk-vetch Astragalus pycnostachyus var. lanosissimus There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. http://ecos.fws.gov/ecp/species/1160	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Braunton's Milk-vetch Astragalus brauntonii http://ecos.fws.gov/ecp/species/5674#crithab	Final designated
Santa Ana Sucker Catostomus santaanae http://ecos.fws.gov/ecp/species/3785#crithab	Final designated
Southwestern Willow Flycatcher Empidonax traillii extimus http://ecos.fws.gov/ecp/species/6749#crithab	Final designated

Not for consultation

Migratory birds

Birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service[3]. There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Conservation measures for birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Year-round bird occurrence data http://www.birdscanada.org/birdmon/default/datasummaries.jsp

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location, not a list of every bird species you may find in this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources.

NAME	SEASON(S)
Allen's Hummingbird Selasphorus sasin http://ecos.fws.gov/ecp/species/9637	Breeding
Bald Eagle Haliaeetus leucocephalus http://ecos.fws.gov/ecp/species/1626	Wintering

Bell's Vireo Vireo bellii http://ecos.fws.gov/ecp/species/9507	Breeding
Black Oystercatcher Haematopus bachmani http://ecos.fws.gov/ecp/species/9591	Year-round
Black Skimmer Rynchops niger http://ecos.fws.gov/ecp/species/5234	Year-round
Black-chinned Sparrow Spizella atrogularis http://ecos.fws.gov/ecp/species/9447	Breeding
Brewer's Sparrow Spizella breweri http://ecos.fws.gov/ecp/species/9291	Year-round
Burrowing Owl Athene cunicularia http://ecos.fws.gov/ecp/species/9737	Year-round
Cactus Wren Campylorhynchus brunneicapillus http://ecos.fws.gov/ecp/species/8834	Year-round
California Spotted Owl Strix occidentalis occidentalis http://ecos.fws.gov/ecp/species/7266	Year-round
Calliope Hummingbird Stellula calliope http://ecos.fws.gov/ecp/species/9526	Breeding
Costa's Hummingbird Calypte costae http://ecos.fws.gov/ecp/species/9470	Breeding
Fox Sparrow Passerella iliaca	Wintering
Green-tailed Towhee Pipilo chlorurus http://ecos.fws.gov/ecp/species/9444	Breeding
Lawrence's Goldfinch Carduelis lawrencei http://ecos.fws.gov/ecp/species/9464	Year-round
Least Bittern Ixobrychus exilis http://ecos.fws.gov/ecp/species/6175	Year-round
Lesser Yellowlegs Tringa flavipes http://ecos.fws.gov/ecp/species/9679	Wintering
Lewis's Woodpecker Melanerpes lewis http://ecos.fws.gov/ecp/species/9408	Wintering
Loggerhead Shrike Lanius ludovicianus http://ecos.fws.gov/ecp/species/8833	Year-round
Long-billed Curlew Numenius americanus http://ecos.fws.gov/ecp/species/5511	Wintering
Marbled Godwit Limosa fedoa http://ecos.fws.gov/ecp/species/9481	Wintering
Mountain Plover Charadrius montanus http://ecos.fws.gov/ecp/species/3638	Wintering
Nuttall's Woodpecker Picoides nuttallii http://ecos.fws.gov/ecp/species/9410	Year-round

Not for consultation

Oak Titmouse Baeolophus inornatus http://ecos.fws.gov/ecp/species/9656	Year-round
Olive-sided Flycatcher Contopus cooperi http://ecos.fws.gov/ecp/species/3914	Breeding
Peregrine Falcon Falco peregrinus http://ecos.fws.gov/ecp/species/8831	Wintering
Red Knot Calidris canutus ssp. roselaari http://ecos.fws.gov/ecp/species/8880	Wintering
Red-crowned Parrot Amazona viridigenalis http://ecos.fws.gov/ecp/species/9022	Year-round
Rufous-crowned Sparrow Aimophila ruficeps http://ecos.fws.gov/ecp/species/9718	Year-round
Short-billed Dowitcher Limnodromus griseus http://ecos.fws.gov/ecp/species/9480	Wintering
Short-eared Owl Asio flammeus http://ecos.fws.gov/ecp/species/9295	Wintering
Snowy Plover Charadrius alexandrinus	Breeding
Tricolored Blackbird Agelaius tricolor http://ecos.fws.gov/ecp/species/3910	Year-round
Western Grebe aechmophorus occidentalis http://ecos.fws.gov/ecp/species/6743	Wintering
Whimbrel Numenius phaeopus http://ecos.fws.gov/ecp/species/9483	Wintering
White Headed Woodpecker Picoides albolarvatus http://ecos.fws.gov/ecp/species/9411	Year-round
Williamson's Sapsucker Sphyrapicus thyroideus http://ecos.fws.gov/ecp/species/8832	Wintering
Yellow Warbler dendroica petechia ssp. brewsteri http://ecos.fws.gov/ecp/species/3230	Breeding

Not for consultation

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAANCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more

susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the Northeast Ocean Data Portal. The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAANCCOS models: the models were developed as part of the NOAANCCOS project: Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf. The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the Northeast Ocean Data Portal, which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The Avian Knowledge Network (AKN) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest,survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the Migratory Bird Programs AKN Histogram Tools webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North, Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Not for consultation

Facilities

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Not for Consultation

Appendix B-3

CNPS – Inventory of Rare and Endangered Plants Query

(8th Edition)

Grant High School

CNPS Inventory of Rare and Endangered Plants Query 4/13/2017

CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Home | About the Inventory | CNPS Home | Join CNPS | Simple Search | Advanced Search

Plant List

8 matches found. *Click on scientific name for details*

Search Criteria

Found in Quad **3411824**

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	Jan-Aug	1B.1	S2	G2
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S4	G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	1B.1	S2	G3T2
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S3	G3
Malacothamnus davidsonii	Davidson's bush-mallow	Malvaceae	perennial deciduous shrub	Jun-Jan	1B.2	S2	G2
Phacelia hubbyi	Hubby's phacelia	Hydrophyllaceae	annual herb	Apr-Jul	4.2	S4	G4

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 13 April 2017].

Appendix B-4

Grant High School Tree Inventory (2016)

7.2 ARBORIST SURVEY

Carlberg ASSOCIATES

Horticulturists and Registered Consulting ARBORISTS

August 15, 2016

Craig Atkinson
IBI Group Architecture Planning
315 West 9th Street, Suite 600
Los Angeles, California 90015

Re: Grant High School Comprehensive Modernization Project – Tree Inventory
Los Angeles, California
Letter of Compliance with Protected Tree Report

Dear Mr. Atkinson,

Carlberg Associates has completed the requested tree inventory and tree location map for the LAUSD design team's use in the planning stages of the Grant High School Comprehensive Modernization Project. Please find enclosed:

- Table 1 - Grant High School, Los Angeles - Tree Inventory
- One PDF copy of the Tree Location Exhibit (1" = 50'-scale, color, 30" x 42")
- Photographic Exhibit – Individual tree photographs

These documents are provided to assist with the selection of conceptual design. Once the design is selected, we will proceed with the impact analysis and City of Los Angeles Protected Tree Report.

Please feel welcome to contact Cy Carlberg at our Santa Monica office, or me at 626.428.5072, if you have any questions.

Respectfully submitted,

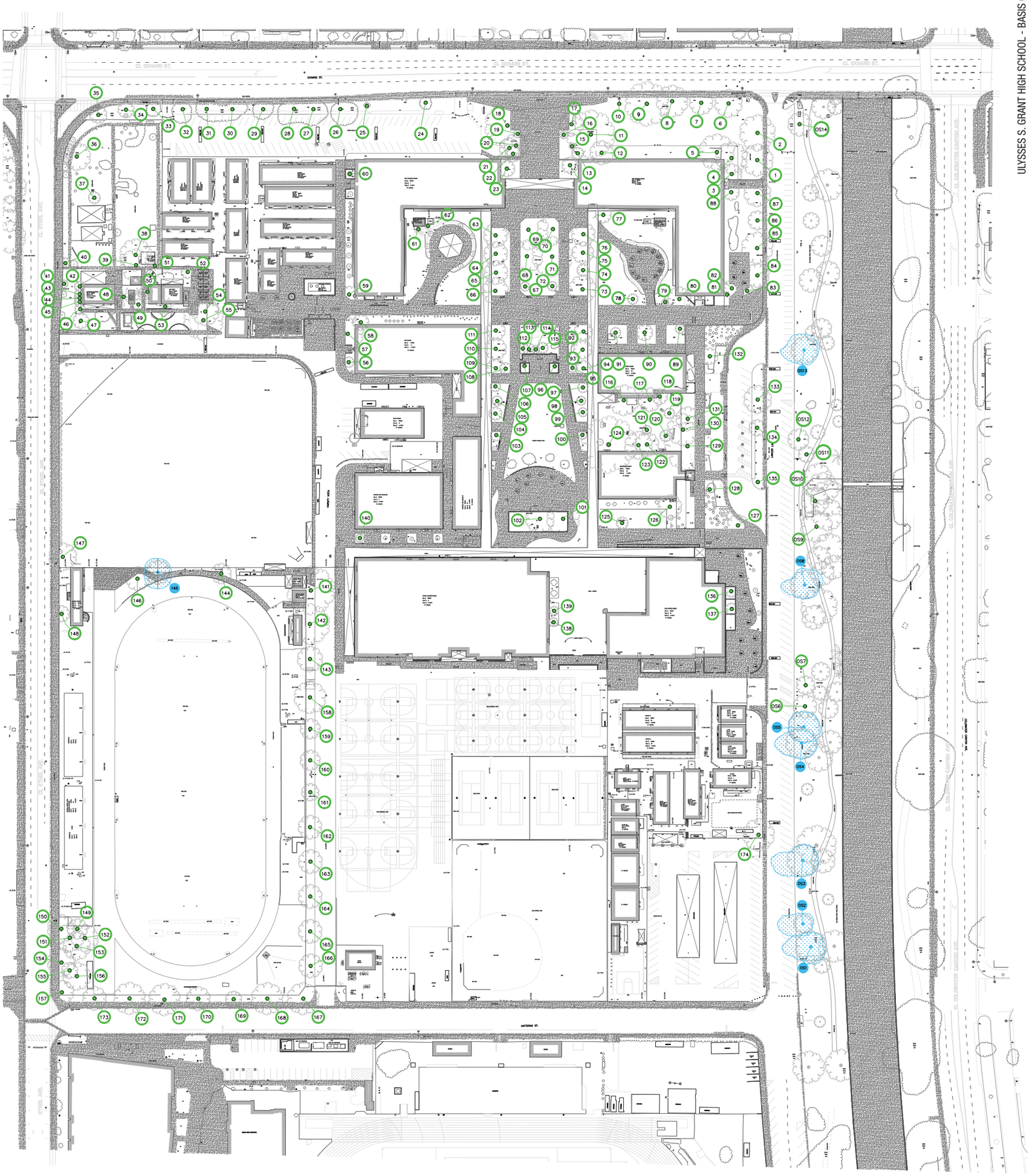
Christine Cuba

Christy Cuba, Registered Consulting Arborist
Sierra Madre Office
christy@cycarlberg.com

Santa Monica Office
828 Fifth Street, Suite 3
Santa Monica, California 90403
Office: 310.451.4804

Sierra Madre Office
80 West Sierra Madre Boulevard, #241
Sierra Madre, California 91024
Office: 626.428.5072

www.cycarlberg.com



TREE INVENTORY LEGEND	
#	NON-PROTECTED TREE
#	WESTERN SYCAMORE CITY OF LOS ANGELES PROTECTED TREE
OS#	OFF-SITE NON-PROTECTED TREE
OS#	OFF-SITE WESTERN SYCAMORE WITH CANOPY OVERHANGING SUBJECT PROPERTY

NOTE: CANOPY MEASUREMENT OF OFF-SITE PROTECTED TREES LIMITED TO THAT PORTION OVERHANGING SUBJECT PROPERTY

Date prepared: 08/10/16
Prepared by: S. McAllaster, ISA Certified Arborist
Reviewed by: Christy Cuba, RCA #502

0 25' 50'
SCALE: 1"=50'

Carlberg Associates
Horticulturists and Registered Consulting Arborists

TREE LOCATION EXHIBIT
GRANT HIGH SCHOOL
13000 OXNARD STREET, LOS ANGELES, CALIFORNIA 91401
PREPARED FOR: AHBE LANDSCAPE ARCHITECTS, 617 W. SEVENTH ST., #304, LOS ANGELES, CA 90017

www.cycarlberg.com Date: 08.10.16 By: S. McAllaster

IBI GROUP

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
1	Shamel ash	*Fraxinus uhdei*	34	45	18	27	28	21	B+	B	NO
2	Shamel ash	*Fraxinus uhdei*	35	50	25	28	28	30	B+	B	NO
3	Coastal redwood	*Sequoia sempervirens*	20	50	10	10	10	10	C	B	NO
4	Coastal redwood	*Sequoia sempervirens*	33	60	15	10	15	15	B-	B	NO
5	Coastal redwood	*Sequoia sempervirens*	35	60	12	10	10	10	B-	B	NO
6	Shamel ash	*Fraxinus uhdei*	26.5	35	25	20	28	25	A	B	NO
7	Shamel ash	*Fraxinus uhdei*	30	35	15	15	21	15	B	B-	NO
8	Shamel ash	*Fraxinus uhdei*	34	35	15	24	34	20	B	B-	NO
9	Shamel ash	*Fraxinus uhdei*	41	45	15	18	30	15	B	B-	NO
10	Shamel ash	*Fraxinus uhdei*	44	45	20	20	33	33	B	C	NO
11	Italian stone pine	*Pinus pinea*	37, 42.5	45	45	40	30	40	B	B-	NO
12	Coastal redwood	*Sequoia sempervirens*	24.5	55	7	7	8	7	B	A	NO
13	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	13	25	15	7	11	10	A	A	NO
14	Coastal redwood	*Sequoia sempervirens*	22	45	15	12	13	15	B	A	NO
15	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	8.5	15	0	0	0	16	A	A	NO
16	Crape myrtle	*Lagerstroemia indica*	9.5	20	12	0	12	15	B	A	NO
17	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	6,6,8,8,9.5	20	17	10	11	18	B	A-	NO
18	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	7,13,17,18, 26	30	15	30	21	18	A	B	NO
19	Crape myrtle	*Lagerstroemia indica*	9.5	20	0	18	8	7	B	B	NO
20	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	3.5,5,12.5, 14	30	12	18	5	5	A	A	NO
21	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	4,10,10,15	25	13	15	15	18	A	A-	NO
22	Hollywood juniper	*Juniperus chinensis 'Torulosa'*	15	25	0	15	15	10	A	A	NO
23	Coastal redwood	*Sequoia sempervirens*	9	30	7	7	7	7	B	A	NO
24	Tulip tree	*Liriodendron tulipifera*	17.5	25	12	18	15	12	B-	B	NO
25	Tulip tree	*Liriodendron tulipifera*	16	25	12	12	12	12	B	B	NO
26	Chinese sweetgum	*Liquidambar formosana*	24	40	13	24	28	18	A	B	NO
27	American sweetgum	*Liquidambar styraciflua*	21.5	40	18	18	21	21	A	B	NO
28	American sweetgum	*Liquidambar styraciflua*	21.5	40	10	20	24	16	A	B+	NO
29	American sweetgum	*Liquidambar styraciflua*	19	30	13	15	20	14	A	B	NO
30	American sweetgum	*Liquidambar styraciflua*	22	30	15	16	15	15	A	B+	NO
31	American sweetgum	*Liquidambar styraciflua*	24	30	13	24	20	18	A	B	NO
32	American sweetgum	*Liquidambar styraciflua*	20	30	12	15	20	14	A	B	NO
33	American sweetgum	*Liquidambar styraciflua*	18	30	15	12	12	12	B-	B-	NO
34	American sweetgum	*Liquidambar styraciflua*	22	35	12	15	20	24	A	B	NO

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
35	American sweetgum	*Liquidambar styraciflua*	19	40	18	15	20	12	A	B	NO
36	Floss silk	*Ceiba speciosa*	30	35	20	24	20	20	A	B	NO
37	White mulberry	*Morus alba*	12.5	25	16	19	20	18	B+	B-	NO
38	Italian stone pine	*Pinus pinea*	33	40	36	25	20	27	A	B+	NO
39	Italian stone pine	*Pinus pinea*	33	40	15	25	30	30	A	B	NO
40	Weeping bottlebrush	*Callistemon viminalis*	10, 11.5	20	10	9	10	10	A	A	NO
41	Crape myrtle	*Lagerstroemia indica*	9	20	11	10	10	11	A-	A	NO
42	Italian cypress - 'Stricta'	*Cupressus sempervirens* 'Stricta'	16	50	3	3	3	4	A-	A	NO
43	Italian cypress - 'Stricta'	*Cupressus sempervirens* 'Stricta'	11	40	3	4	4	4	A-	A	NO
44	Hollywood juniper	*Juniperus chinensis* 'Torulosa'	12	30	7	0	10	15	A	A-	NO
45	Italian cypress	*Cupressus sempervirens*	12	45	4	6	3	4	A	A	NO
46	Fern pine	*Afrocarpus falcatus*	8, 8	25	6	6	8	10	A	B	NO
47	Avocado	*Persea americana*	8, 12, 13	20	10	15	12	15	B-	B-	NO
48	Mexican fan palm	*Washingtonia robusta*	35 BT	43	7	7	7	7	A	A	NO
49	Southern magnolia	*Magnolia grandiflora*	17	30	11	10	12	15	B-	B	NO
50	Hollywood juniper	*Juniperus chinensis* 'Torulosa'	5, 10.5	15	12	6	3	10	A	A-	NO
51	Queen palm	*Syagrus romanzoffiana*	23 BT	33	15	15	15	15	A	A	NO
52	Xylosma	*Xylosma congestum*	10, 13	25	20	16	15	10	A	B	NO
53	Mexican fan palm	*Washingtonia robusta*	45 BT	50	8	8	8	8	A	A	NO
54	Indian laurel fig	*ficus microcarpa*	5,6,7,7,8	25	21	25	18	18	A	B	NO
55	Italian stone pine	*Pinus pinea*	34.5	40	36	30	30	27	A	B	NO
56	Coastal redwood	*Sequoia sempervirens*	14	30	10	10	10	10	B	A	NO
57	Coastal redwood	*Sequoia sempervirens*	26	40	12	12	12	12	B	C-	NO
58	Hollywood juniper	*Juniperus chinensis* 'Torulosa'	22	20	20	15	5	15	A	A	NO
59	Southern magnolia	*Magnolia grandiflora*	18.5	30	10	10	17	17	B-	B	NO
60	Crape myrtle	*Lagerstroemia indica*	8	20	12	7	15	15	A	A	NO
61	Senegal date palm	*Phoenix reclinata*	15 bt	25	7	7	7	7	A	A	NO
62	Senegal date palm	*Phoenix reclinata*	15, 17 bt	25, 27	10	10	10	10	A	A	NO
63	Canary Island pine	*Pinus canariensis*	28	60	18	12	12	15	A	A	NO
64	Canary Island pine	*Pinus canariensis*	28	60	12	15	18	25	A-	A	NO
65	Canary Island pine	*Pinus canariensis*	25	60	12	15	18	18	A-	A	NO
66	Canary Island pine	*Pinus canariensis*	31	45	10	12	15	12	A	A	NO
67	Afghan pine	*Pinus eldarica*	14	30	12	12	12	12	A	A	NO
68	Italian stone pine	*Pinus pinea*	37	50	40	0	40	30	A	B	NO

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
69	Italian stone pine	*Pinus pinea*	28, 36	40	42	25	15	0	B	C-	NO
70	Italian stone pine	*Pinus pinea*	29, 29.5	55	40	36	22	20	B+	B-	NO
71	Italian stone pine	*Pinus pinea*	25, 30	55	20	20	30	30	B	B	NO
72	Afghan pine	*Pinus eldarica*	13	30	12	12	12	12	A	A	NO
73	Canary Island pine	*Pinus canariensis*	36	60	20	20	21	21	A	A	NO
74	Canary Island pine	*Pinus canariensis*	21	55	13	14	7	12	A	A-	NO
75	Canary Island pine	*Pinus canariensis*	29	60	15	18	14	15	B+	A-	NO
76	Canary Island pine	*Pinus canariensis*	30	60	27	15	15	10	B+	B+	NO
77	Coastal redwood	*Sequoia sempervirens*	22	50	15	12	11	10	B	A	NO
78	Afghan pine	*Pinus eldarica*	16	25	12	12	12	12	A	A	NO
79	Queensland pittosporum	*Pittosporum rhombifolium*	10	20	10	10	10	10	B-	A-	NO
80	Hollywood juniper	*Juniperus chinensis* 'Torulosa'	9,9,10,11,14	25	3	18	20	16	A	B+	NO
81	Senegal date palm	*Phoenix reclinata*	20, 20 bt	26,26	4	13	15	10	A	A	NO
82	Coastal redwood	*Sequoia sempervirens*	17	45	0	0	0	0	F	F	NO
83	Hollywood juniper	*Juniperus chinensis* 'Torulosa'	5, 6, 7, 7, 7.5, 8	15	15	15	15	10	A	A	NO
84	Shamel ash	*Fraxinus uhdei*	39	50	20	25	30	30	B-	B-	NO
85	Shamel ash	*Fraxinus uhdei*	40	50	30	30	21	30	B	C+	NO
86	Shamel ash	*Fraxinus uhdei*	35	35	20	25	20	30	B	C+	NO
87	Shamel ash	*Fraxinus uhdei*	35	35	20	28	20	30	A	C	NO
88	Coastal redwood	*Sequoia sempervirens*	19	45	8	8	7	8	C	B-	NO
89	Queensland pittosporum	*Pittosporum rhombifolium*	8	15	10	6	10	10	B-	B+	NO
90	Carob	*Ceratonia siliquia*	17.5	20	16	18	21	15	A	B	NO
91	Chinese elm	*Ulmus parvifolia*	13	25	20	18	21	21	A	B+	NO
92	Canary Island pine	*Pinus canariensis*	26	60	18	18	10	10	A-	A-	NO
93	Canary Island pine	*Pinus canariensis*	32	60	18	21	18	17	A-	A-	NO
94	Canary Island pine	*Pinus canariensis*	29	60	12	20	20	13	A-	A-	NO
95	Strawberry tree	*Arbutus unedo*	6, 7.5	15	10	7	10	13	B	C-	NO
96	Silk tree	*Albizzia julibrissin*	5, 6	15	7	10	10	10	B	C	NO
97	Jacaranda	*Jacaranda mimosifolia*	13	20	10	10	10	10	B-	C	NO
98	Victorian box	*Pittosporum undulatum*	13.5	20	10	4	10	10	B	C-	NO
99	Jacaranda	*Jacaranda mimosifolia*	12.5	20	15	15	15	18	B	B-	NO
100	Jacaranda	*Jacaranda mimosifolia*	12	20	10	6	12	15	B	B-	NO
101	Italian stone pine	*Pinus pinea*	54.5	50	55	30	31	30	B+	B-	NO
102	Italian stone pine	*Pinus pinea*	36	50	45	15	36	25	B	B-	NO
103	Jacaranda	*Jacaranda mimosifolia*	19	25	15	18	20	18	B	B-	NO

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
104	Jacaranda	*Jacaranda mimosifolia*	20	25	16	20	15	20	B+	B-	NO
105	Victorian box	*Pittosporum undulatum*	13	15	5	10	11	7	B	B-	NO
106	Jacaranda	*Jacaranda mimosifolia*	16.5	30	15	8	15	13	B	B-	NO
107	Silk tree	*Albizzia julibrissin*	10	15	10	10	15	15	B	C-	NO
108	Tipu tree	*Tipuana tipu*	16.5	35	9	20	30	8	B+	B-	NO
109	Canary Island pine	*Pinus canariensis*	25	60	12	12	12	15	A-	A-	NO
110	Canary Island pine	*Pinus canariensis*	34	60	20	18	18	18	A-	A-	NO
111	Canary Island pine	*Pinus canariensis*	24	50	21	17	14	20	A-	A-	NO
112	Italian cypress	*Cupressus sempervirens*	15.5	35	10	8	13	12	A	A	NO
113	Italian cypress	*Cupressus sempervirens*	14.5	35	10	8	12	6	A	A	NO
114	Italian cypress	*Cupressus sempervirens*	5, 8	35	6	6	10	6	A	A	NO
115	Italian cypress	*Cupressus sempervirens*	10, 12	30	10	10	10	6	A	A	NO
116	Fern pine	*Afrocarpus falcatus*	30.5	40	15	15	20	18	A	B	NO
117	Fern pine	*Afrocarpus falcatus*	30	50	20	15	24	20	A	B+	NO
118	Weeping fig	*Ficus benjamina*	20	40	15	20	20	14	A	A	NO
119	Southern magnolia	*Magnolia grandiflora*	14.5	35	10	12	15	12	B	B	NO
120	Southern magnolia	*Magnolia grandiflora*	14.5	35	12	12	15	15	C+	B	NO
121	Southern magnolia	*Magnolia grandiflora*	10	30	15	12	15	15	A-	B	NO
122	Coastal redwood	*Sequoia sempervirens*	26	50	15	15	15	10	A	A	NO
123	Coastal redwood	*Sequoia sempervirens*	34	60	13	10	18	12	A	A	NO
124	Coastal redwood	*Sequoia sempervirens*	51	60	22	21	15	20	A	A	NO
125	Evergreen pear	*Pyrus kawakamii*	15.4	20	10	10	15	19	B	B	NO
126	Coastal redwood	*Sequoia sempervirens*	29	50	15	18	15	12	B	B+	NO
127	White alder	*Alnus rhombifolia*	24	25	10	10	10	12	D	D	NO
128	White alder	*Alnus rhombifolia*	24	25	10	8	7	7	D	D	NO
129	Coastal redwood	*Sequoia sempervirens*	42	65	12	12	12	12	A	A	NO
130	Coastal redwood	*Sequoia sempervirens*	38	60	12	15	12	12	A-	B+	NO
131	Coastal redwood	*Sequoia sempervirens*	28	60	16	16	12	12	A-	A	NO
132	White alder	*Alnus rhombifolia*	14	20	10	10	6	7	D	D	NO
133	Deodar cedar	*Cedrus deodara*	27	35	21	27	22	22	B	B	NO
134	Deodar cedar	*Cedrus deodara*	21.5	35	21	21	21	21	B+	B+	NO
135	Deodar cedar	*Cedrus deodara*	16.5	30	15	15	25	15	B-	B+	NO
136	Fern pine	*Afrocarpus falcatus*	22	30	18	20	12	7	D	D	NO
137	Fern pine	*Afrocarpus falcatus*	11.5, 20.5	35	12	15	15	15	C+	B	NO
138	Holly leaf cherry	*Prunus ilicifolia*	5, 7	15	10	10	10	10	B	B-	NO

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
139	Peach	*Prunus persica*	10.5	15	12	10	7	7	B	B	NO
140	Mexican palo verde	*Parkinsonia aculeata*	5, 11	20	12	20	20	22	A	A	NO
141	Shamel ash	*Fraxinus uhdei*	48	50	21	27	21	20	B	B-	NO
142	Shamel ash	*Fraxinus uhdei*	43	50	20	20	20	20	B-	B-	NO
143	Shamel ash	*Fraxinus uhdei*	34	60	20	27	18	20	C	B-	NO
144	Jacaranda	*Jacaranda mimosifolia*	10.5, 13	20	15	18	22	18	A	B	NO
145	California sycamore	*Platanus racemosa*	26	40	20	20	24	20	A	A	YES
146	London plane tree	*Platanus x acerifolia*	18	40	12	12	20	20	A-	A	NO
147	American sweetgum	*Liquidambar styraciflua*	12, 15	30	15	15	18	12	B	B	NO
148	American sweetgum	*Liquidambar styraciflua*	15	20	12	15	12	10	C-	D	NO
149	Shamel ash	*Fraxinus uhdei*	20	35	30	30	15	15	B-	C+	NO
150	Shamel ash	*Fraxinus uhdei*	29	25	15	12	12	20	B	C	NO
151	Shamel ash	*Fraxinus uhdei*	27	40	23	30	15	20	B+	B	NO
152	Shamel ash	*Fraxinus uhdei*	22	40	17	24	18	7	B-	B-	NO
153	Shamel ash	*Fraxinus uhdei*	28	40	10	25	32	30	B	B-	NO
154	Shamel ash	*Fraxinus uhdei*	29	25	10	10	12	12	B-	C	NO
155	Shamel ash	*Fraxinus uhdei*	17	30	10	11	12	18	B-	C-	NO
156	Shamel ash	*Fraxinus uhdei*	29	45	18	15	20	18	C+	B-	NO
157	Shamel ash	*Fraxinus uhdei*	28	20	15	18	15	15	B	C-	NO
158	Shamel ash	*Fraxinus uhdei*	54.5	50	30	30	27	22	B	C+	NO
159	Shamel ash	*Fraxinus uhdei*	31	50	20	20	24	20	B-	C+	NO
160	Shamel ash	*Fraxinus uhdei*	29	40	15	15	15	15	C	C	NO
161	Shamel ash	*Fraxinus uhdei*	30.5	40	15	15	15	15	C+	C+	NO
162	Shamel ash	*Fraxinus uhdei*	39.5	50	21	23	24	22	C+	B-	NO
163	Shamel ash	*Fraxinus uhdei*	35.5	50	20	24	20	20	B	B	NO
164	Shamel ash	*Fraxinus uhdei*	42	55	30	30	30	30	B+	B	NO
165	Shamel ash	*Fraxinus uhdei*	39	50	25	22	27	20	B	B	NO
166	Shamel ash	*Fraxinus uhdei*	36.5	50	30	30	30	30	B	C+	NO
167	Shamel ash	*Fraxinus uhdei*	37	50	20	27	25	22	B-	B-	NO
168	Shamel ash	*Fraxinus uhdei*	45	50	25	25	30	30	A	B+	NO
169	Shamel ash	*Fraxinus uhdei*	24	40	20	15	20	18	B	B	NO
170	Shamel ash	*Fraxinus uhdei*	34	45	25	15	15	18	B-	C+	NO
171	Shamel ash	*Fraxinus uhdei*	44	50	25	25	30	18	A-	B-	NO
172	Shamel ash	*Fraxinus uhdei*	38	50	30	25	23	30	A-	B-	NO
173	Shamel ash	*Fraxinus uhdei*	34	50	20	23	22	21	C+	C+	NO

TABLE 1 - GRANT HIGH SCHOOL, LOS ANGELES - TREE INVENTORY

Tree #	Common Name	Botanical Name	DBH(s) (in.)	~ Height (ft.)	N	E	S	W	Health	Structure	Protected
174	White mulberry	*Morus alba*	12	20	15	15	18	15	B-	B-	NO
OS-1	California sycamore	*Platanus racemosa*	33								YES
OS-2	California sycamore	*Platanus racemosa*	22								YES
OS-3	California sycamore	*Platanus racemosa*	37	Off-site tree canopy overhang was measured from the edge of the curb of the parking stalls on the east of the property boundary and is illustrated on the Tree Location Map. No other off-site tree data was gathered during the initial site visit.							YES
OS-4	California sycamore	*Platanus racemosa*	22								YES
OS-5	California sycamore	*Platanus racemosa*	25								YES
OS-6	Brazilian pepper	*Schinus terebinthifolius*	21								NO
OS-7	Brazilian pepper	*Schinus terebinthifolius*	25								NO
OS-8	California sycamore	*Platanus racemosa*	23								YES
OS-9	Aleppo pine	*Pinus halepensis*	26								NO
OS-10	Aleppo pine	*Pinus halepensis*	29								NO
OS-11	Brazilian pepper	*Schinus terebinthifolius*	16								NO
OS-12	Brazilian pepper	*Schinus terebinthifolius*	23								NO
OS-13	California sycamore	*Platanus racemosa*	32								YES
OS-14	Brazilian pepper	*Schinus terebinthifolius*	20								NO

Placeholder for Tree Location Exhibit
1”=50’ scale
Color – 30” x 42”

CY CARLBERG
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Education
B.S., Landscape Architecture, California State Polytechnic University, Pomona, 1985
Graduate, Arboricultural Consulting Academy, American Society of Consulting Arborists, Chicago, Illinois, February 2002
Graduate, Municipal Forestry Institute, Lied, Nebraska, 2012

Experience
Consulting Arborist, Carlberg Associates, 1998-present
Manager of Grounds Services, California Institute of Technology, Pasadena, 1992-1998
Director of Grounds, Scripps College, Claremont, 1988-1992

Certificates
Certified Arborist (#WE-0575A), International Society of Arboriculture, 1990
Registered Consulting Arborist (#405), American Society of Consulting Arborists, 2002
Certified Urban Forester (#013), California Urban Forests Council, 2004
Qualified Tree Risk Assessor, International Society of Arboriculture, 2011

AREAS OF EXPERTISE

Ms. Carlberg is experienced in the following areas of tree management and preservation:

- Tree health and risk assessment
- Master Planning
- Historic landscape assessments, preservation plans, reports
- Tree inventories and reports to satisfy jurisdictional requirements
- Expert Testimony
- Post-fire assessment, valuation, and mitigation for trees and native plant communities
- Value assessments for native and non-native trees
- Pest and disease identification
- Guidelines for oak preservation
- Selection of appropriate tree species
- Planting, pruning, and maintenance specifications
- Tree and landscape resource mapping – GPS, GIS, and AutoCAD
- Planning Commission, City Council, and community meetings representation

PREVIOUS CONSULTING EXPERIENCE

Ms. Carlberg has overseen residential and commercial construction projects to prevent damage to protected and specimen trees. She has thirty-five years of experience in arboriculture and horticulture and has performed tree health evaluation, value and risk assessment, and expert testimony for private clients, government agencies, cities, school districts, and colleges. Representative clients include:

The Huntington Library and Botanical Gardens
The Los Angeles Zoo and Botanical Gardens
The Rose Bowl and Brookside Golf Course, Pasadena
Walt Disney Concert Hall and Gardens
The Art Center College of Design, Pasadena
Pepperdine University
Loyola Marymount University
The Claremont Colleges (Pomona, Scripps, CMC, Harvey Mudd, Claremont Graduate University, Pitzer, Claremont University Center)
Quinn, Emanuel, Urquhart and Sullivan (attorneys at law)
Getty Trust – Eames House
Historic Resources Group
The City of Claremont
The City of Beverly Hills
The City of Pasadena
The City of Los Angeles
The City of Santa Monica
Santa Monica/Malibu Unified School District
San Diego Gas & Electric
Los Angeles Department of Water and Power
Rancho Santa Ana Botanic Garden, Claremont
Latham & Watkins, LLP (attorneys at law)
Architectural Resources Group
AHBE Landscape Architects
Moule and Polyzoides, Architects and Urbanists

AFFILIATIONS

Ms. Carlberg serves with the following national, state, and community professional organizations:

- California Urban Forests Council, Board Member, 1995-2006
- Street Tree Seminar, Past President, 2000-present
- American Society of Consulting Arborists Academy, Faculty Member, 2003-2005; 2014
- American Society of Consulting Arborists, Board of Directors, 2013-2015
- Member, Los Angeles Oak Woodland Habitat Conservation Strategic Alliance, 2010-present

CHRISTINE CUBA
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Education
B.A., Environmental Analysis & Design, Cum Laude, University of California, Irvine, 1993
Graduate, International Society of Arboriculture Certification Study Program, April 1998
Graduate, Consulting Academy, American Society of Consulting Arborists, February 2008

Experience
Senior Arborist/Associate, Carlberg Associates, 2011 - Present
Director of Environmental Services & Senior Arborist, Land Design Consultants, Pasadena, 1994 – 2011
Park Specialist/Naturalist, City of Monrovia, 1988-1996

Certificates
Certified Arborist, WE-1982A, International Society of Arboriculture, 1998
Registered Consulting Arborist, #502, American Society of Consulting Arborists, 2011
Qualified Tree Risk Assessor, International Society of Arboriculture, 2013

AREAS OF EXPERTISE

Ms. Cuba is experienced in the following areas of tree management and preservation:

- Tree health & risk assessments
- Inventories & reports for native and non-native trees
- Master planning
- Evaluation of trees for preservation, encroachment, relocation, restoration, and hazards
- Value assessments (appraisals) for native and non-native trees
- Post-fire inventories, assessments, and valuations for native and non-native trees
- Guidelines for tree preservation, planting, pruning and maintenance specifications
- Pest and disease identification
- Tree and landscape resource mapping – GPS, GIS, and AutoCAD
- Planning Commission, City Council, and community meetings representation
- Review of landscape plans for mitigation compliance & fire fuel modification planning
- Preparation of native habitat and woodland management plans
- Performance of long-term mitigation compliance monitoring & reporting
- Expert testimony

PREVIOUS CONSULTING EXPERIENCE

Ms. Cuba has performed hundreds of tree inventories, health evaluations, impact analyses, hazard, and value assessments for counties, cities, sanitation districts, and water districts, as well as private developers, architects, engineers, and homeowners. She has over 23 of experience in arboriculture and is trained in environmental planning, state and federal regulatory permitting, preparation of CEQA analyses, and habitat mitigation planning and implementation. Representative clients include:

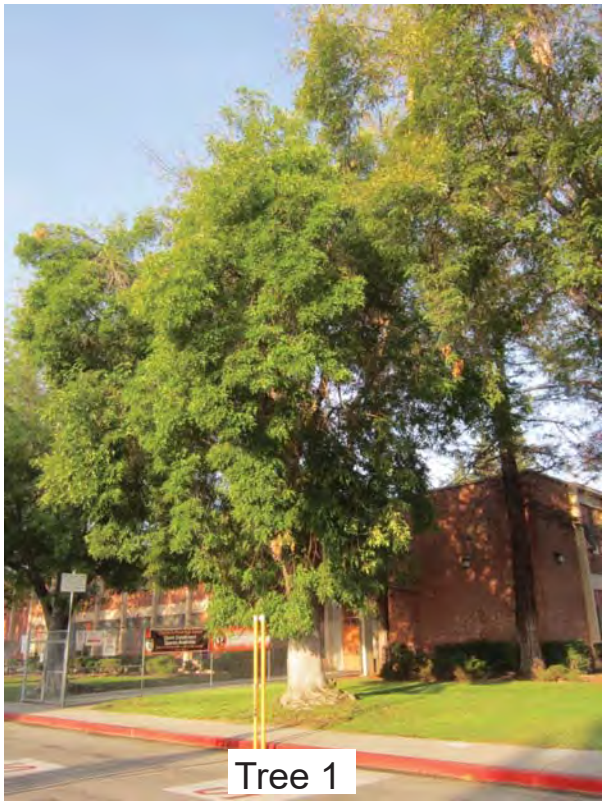
City of Pasadena
City of Monrovia
City of Santa Clarita
City of Glendora
Los Angeles County Fire Department
California Institute of Technology
Mia Lehrer + Associates
Pulte/Centex Homes
Newhall Land and Farming
KOVAC Design Studio
EPT Design
San Diego Gas & Electric
Quinn, Emanuel, Urquhart and Sullivan (attorneys at law)
The New Home Company
City of South Gate
City of Sierra Madre
Belzberg Architects
Occidental College
Rose Bowl Stadium
Las Encinas Hospital/Aurora Health Services
The Claremont Colleges
AHBE Landscape Architects

AFFILIATIONS

Ms. Cuba serves with the following national and regional professional organizations:

- Member, American Society of Consulting Arborists
- Member, International Society of Arboriculture, Western Chapter
- Past President (2015), Street Tree Seminar, Inc.

Carlberg ASSOCIATES



Tree 1

Tree 2

Tree 3(L), 4(C) & 5(R)

Tree 6

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Tree 7

Tree 8

Tree 9

Tree 10

Carlberg ASSOCIATES

Tree 15

Tree 16

Tree 17

Tree 18

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Tree 19

Tree 20, 21 & 22

Tree 23

Tree 24

Tree 25

Tree 26

Tree 27

Tree 28

Tree 29

Tree 30

Tree 31

Tree 32

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Tree 33

Tree 34

Tree 35

Tree 36

Carlberg ASSOCIATES

Tree 37

Tree 38 & 39

Tree 40

Tree 41

Carlberg ASSOCIATES

Tree 42 & 43

Tree 44 & 45

Tree 46

Tree 47

Tree 48

Tree 49

Tree 50

Tree 51

Carlberg ASSOCIATES

Tree 56

Tree 57

Tree 58

Tree 59

Carlberg ASSOCIATES

Tree 60

Tree 61(L) & 62(R)

Tree 63(R) & 64(L)

Tree 65(R) & 66(L)

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Tree 71

Tree 72

Tree 73

Tree 74(R), 75(C) & 76(L)

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Tree 77

Tree 78

Tree 79

Tree 80

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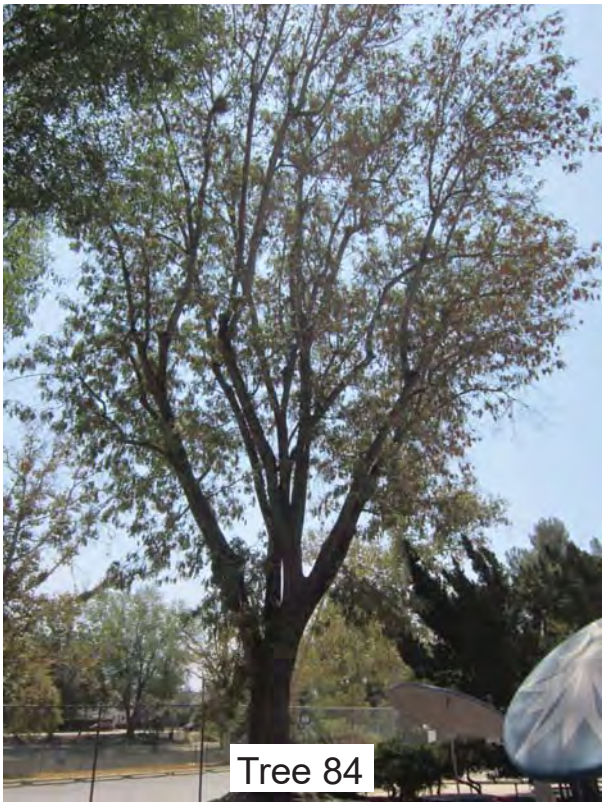
Tree 81 & 82

Tree 83


Tree 84

Tree 85

Tree 86

Tree 87

Tree 88

Tree 89

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Tree 90

Tree 91

Tree 92(L), 93(C) & 94(R)

Tree 95

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Tree 100

Tree 101

Tree 102

Tree 103

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Tree 108

Tree 109(L) & 110(R)

Tree 111

Tree 112(L) - 115(R)

Tree 116

Tree 117

Tree 118

Tree 119

Carlberg ASSOCIATES

Tree 120

Tree 121

Tree 122(L) & 123(R)

Tree 124

Tree 125

Tree 126

Tree 127

Tree 128

Carlberg ASSOCIATES

Tree 129(L), 130(C) & 131(R)

Tree 132

Tree 133(L) & 134(R)

Tree 135

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Tree 144

Tree 145

Tree 146

Tree 147

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Carlberg ASSOCIATES

Tree F

Tree G

Tree H

Tree I

Carlberg ASSOCIATES

Tree J

Tree K

Tree L

Tree M

Tree N

Tree O

Appendix C

Historic Resources Report (Sapphos)

Sapphos environmental inc.

March 14, 2017
Job Number: 1498-036
Grant High School Historic Resource Evaluation Report

HISTORIC RESOURCE EVALUATION REPORT

TO: Los Angeles Unified School District
(Ms. Debi Howell-Ardila)

FROM: Sapphos Environmental, Inc.
(Mr. Donald M. Faxon)

SUBJECT: Historic Resource Evaluation Report for Grant High School, 13000 Oxnard Street, Los Angeles, California 91401

EXECUTIVE SUMMARY

This Memorandum for the Record documents the results of the Historic Resource Evaluation Report undertaken for Ulysses S. Grant High School located at 13000 Oxnard Street, Los Angeles, California 91401. The property, originally constructed in 1958–1959, is owned and administered by the Los Angeles Unified School District. This Historic Resource Evaluation Report was prepared by Mr. Donald Faxon of Sapphos Environmental, Inc., who meets the Secretary of the Interior's *Professional Qualification Standards* in the field of Architectural History. The 32.1-acre campus comprises approximately 53 buildings and structures, of which 27 are considered permanent and contain 38 classrooms. The review was based on a site investigation of the property; literature review and online research; and an application of federal, state, and local register eligibility criteria. As a result of the investigation, the Grant High School campus property was determined to be not eligible for listing in the California Register of Historical Resources. The campus was determined to be not eligible based on its lack of ability to meet Los Angeles Unified School District criteria standards, in addition to alterations made to one of the primary classroom buildings that would have prevented it from meeting the threshold for integrity retention. Therefore, the property was not determined to be a historical resource for the purposes of Section 15064.5(a) of the California Environmental Quality Act Guidelines. No individual buildings were determined eligible during this evaluation.

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Web site:
www.sapphosenvironmental.com

INTRODUCTION

In January 2017, the Los Angeles Unified School District (LAUSD) contracted Sapphos Environmental, Inc. to prepare a Historical Resource Evaluation Report (HRER) in support of Ulysses S. Grant High School (Grant High School). Opposing opinions have been provided as to whether the campus is eligible for the California Register of Historic Resources (CRHR) as a historic district. An evaluation by Sapphos Environmental, Inc. as part of the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*, found the campus not eligible,[1,2] while an individual evaluation by SurveyLA in July 2015 found the property eligible under both Criteria 1 and 3.[3] The purpose of this evaluation is to provide an independent and exhaustive evaluation of Grant High School regarding eligibility for listing in the CRHR. Buildings and structures that are individually eligible, or collectively eligible as a district, must be treated as historical resources pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines.

The review is based on a site investigation of the property; literature review and online research; and an application of federal, state, and local register eligibility criteria. The two prior evaluations of the property were thoroughly reviewed and the factual data in the respective evaluations considered in this HRER.

PROPERTY LOCATION AND DESCRIPTION

Grant High School is located at 13000 Oxnard Street in the Valley Glen neighborhood of the City of Los Angeles, in the County of Los Angeles, California (Figure 1, *Project Location Map*). Lying approximately 17 miles northeast of Los Angeles City Hall on Tract 16864, the 32.1-acre school campus is roughly bounded by Oxnard Street to the north, Lancer Lane to the east, Hatteras Street to the south, and Ethel Avenue to the west. The campus includes approximately 53 buildings and structures, 27 of which are considered permanent, along with playing fields, playing courts, and landscaping features (Figure 2, *Grant High School Existing Site Plan*).

METHODOLOGY

Sapphos Environmental, Inc. (Mr. Don Faxon) completed a site visit of Grant High School on February 9, 2017, to determine if the campus was eligible as a historic district for the CRHR. Mr. Faxon meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History (Attachment 1, *Resume of Project Personnel*). Sapphos Environmental, Inc. inspected Grant High School to evaluate its campus and document its landscape and buildings. A digital photographic record of the resources at the school was compiled. Previous evaluations were analyzed and research was performed to verify those reports. In addition, at the request of LAUSD, Mr. Faxon provided an initial opinion by teleconference on February 20, 2017, as to the eligibility of the campus for the CRHR.

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1 Los Angeles Unified School District. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

2 Los Angeles Unified School District. June 2014. *Historic Resources Survey Report*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

3 SurveyLA. 15, August 2015. *Van Nuys and North Sherman Oaks Report*.

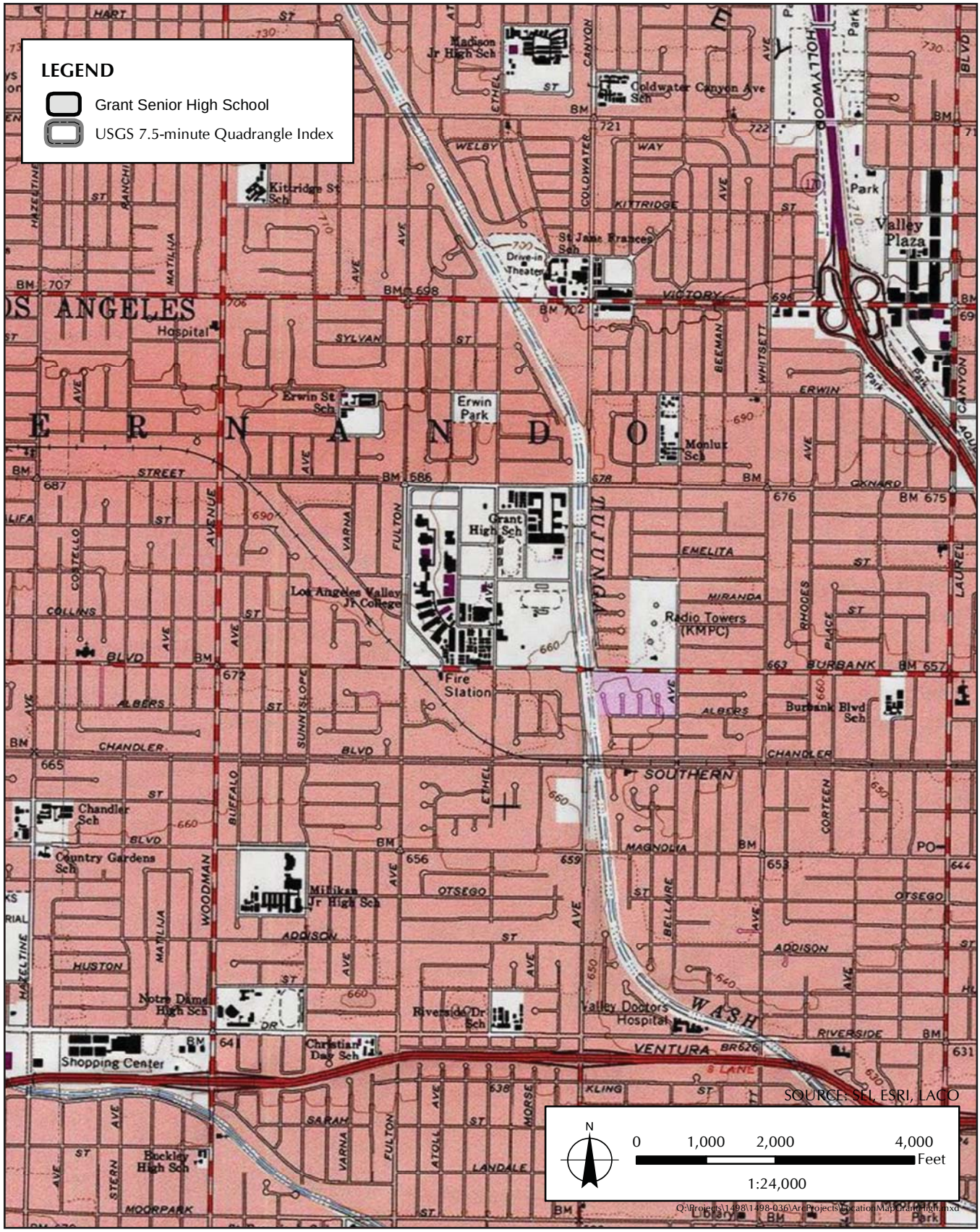
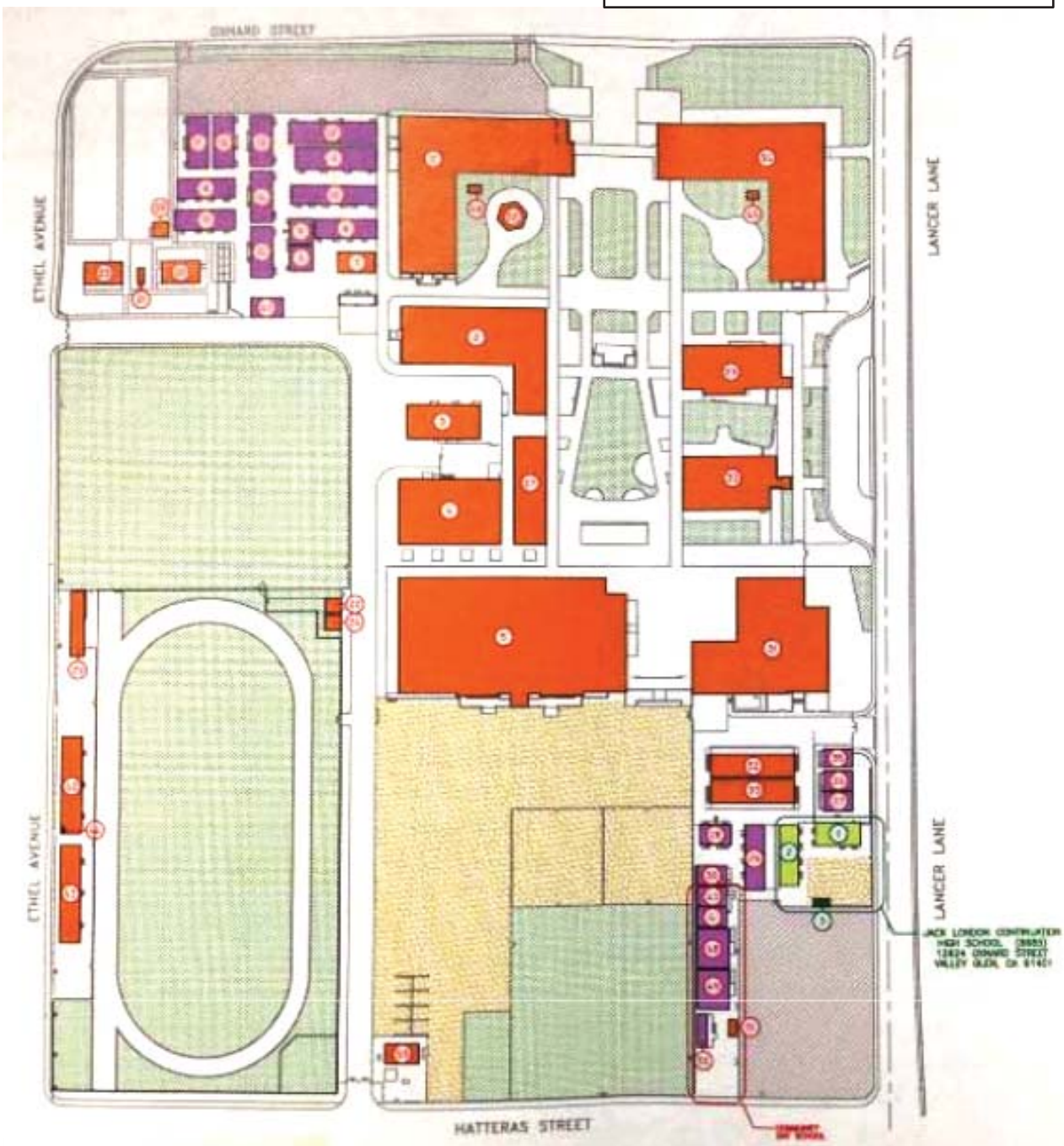


FIGURE 1
Project Location Map



SOURCE: Los Angeles Unified School District. September 2011. Ulysses S. Grant High School: Campus Pre-Planning Survey. Prepared by: Harley Ellis Devereaux, Architect.

FIGURE 2
Grant High School Site Plan

HISTORIC OVERVIEW

Postwar Indoor-Outdoor Integration

The idea that children "should be nourished like plants in a garden" prompted educators to promote exposing young students to the outdoors for health and learning as early as the mid-19th century, mostly in regard to kindergartens. Urban problems versus the beneficial effects of outdoor play in regard to infant education were discussed before the 19th century, but outdoor exposure was initially avoided. It was not until Friedrich Froebel developed the first kindergarten in Germany in 1837 that an architectural approach was attempted.

The concept of integrating indoor and outdoor exposure at public schools was further developed during the 20th century, resulting in classroom buildings being designed with better natural light and access to the outdoors. Postwar American schools continued developing practical applications of the idea, especially in California. Canopied outdoor corridors supported by steel post and beam, cross-lighting using larger windows employed on northern elevations balanced by bands of clerestory windows on south elevations, and modular site planning and design were all incorporated in school designs as part of the same modern themes promoted in periodicals such as *Architectural Forum* that encouraged architects to design residential architecture to take advantage of the state's warm climate.[4]

The Cluster-Plan for Postwar Schools

LAUSD has organized the historic context for building and structure typologies into multiple themes and eras.[5] As a variation of the cluster plan, Grant High School is most closely associated with that typology context.

> "Two major decentralized, school plan typologies were developed in the 1940s and 1950s, with California as their testing ground: the finger-plan and cluster-plan. The plan type that best captured the design principals of the immediate post-war period was the finger plan school, although its roots date to 1930s prototypes.
>
> But by the early 1950s, the popularity of the finger-plan school had begun to decline. First, the design required large swaths of land to accommodate the extended site plan. Second, the plan increased cross-campus walk times and communication. In some scenarios, it also made more sense to build upward instead of outward. On hillside locations, where an expanded footprint meant doubling or tripling already expensive grading costs, the finger-plan school was not a viable option. In mass circulation and trade magazines of the day, though, the one-story scale was still preferred, in particular for elementary schools (the exception remained densely developed urban sites, where one could only expand upward).
>
> The need for cost-effective school design and construction was an additional factor in the move away from the finger-plan. By the early 1950s, there were signs that the immediate post-war focus on carefully harnessing and controlling light—including orienting the building on a north-south axis to create the perfect blend of cross-lighting—was becoming too time consuming. Not all sites would be large enough, and not all building programs well-funded enough, to justify having such an expenditure of design time devoted to fenestration alone. In

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4 Los Angeles Unified School District. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

5 *Ibid.*

1952, *Architectural Record* observed that, in national school design, in more and more localities that substantially less emphasis on daylighting may be anticipated. Natural light is so variable that it can seldom be relied on during the entire school day without considerable recourse to electric light. Control of daylight to prevent glare has been found costly and involved.

With high demand and restricted funding for new schools a constant issue, the possibility of a more compact campus plan became the subject of study, a few early prototypes, then a new trend, the cluster-plan school, by the early 1950s. The cluster-plan school offered a logical solution to these issues. It retained the low massing and indoor-outdoor access and views for all classrooms. But rather than extending wings along an axis, the plan called for grouping them as modular, standalone units around a shared central courtyard. Classrooms still had generous expanses of windows, but now views took in the courtyard and other classrooms, which provided a more communal, neighborhood-like setting.

As with the finger-plan, the new typology was interpreted and designed in many different variations, but the basic ideas remained the same. Even in California, with space to grow, the cluster-plan became the preferred typology in the 1950s. Finger-plan schools were still built—usually the condensed or modified typologies already emerging by the late 1940s. But in a five-year study of the state's school plants, the California Department of Education praised the cluster-plan for more efficient land utilization. The advantages of this plan were many: more child-friendly in its scale and setting, especially for younger children; more communal, with more shared spaces; and easier to supervise. With this plan, what had been the corner of the room on the interior became the front row on the courtyard.

One early example in California was John Lyon Reid's 1951 John Muir Elementary School in Martinez, California, northeast of San Francisco. In his design, Reid employed a typical pavilion-like plan, with long one-story classrooms separated by patios and landscaping, accessed via sheltered walkways with wide eaves. The classroom wings are clustered around cross-wings, creating a courtyard setting. As with the Saarinens' Crow Island school, Reid's L-shaped classrooms created enclosed outdoor areas for outdoor play and recreation.

Within the Los Angeles City School District, Sumner Spaulding and John Rex's Orville Wright Middle School (originally Westchester High School) was another early example of a finger-plan and cluster-plan hybrid, this time for a high school campus. The school incorporated the best of mid-century modern design, by one of the region's renowned firms, with the newest design principles for school plants. Completed in stages between 1948 and 1952, Orville Wright Middle School was constructed for a growing residential community near one of Los Angeles's centers for the aerospace industry.

In a spare, modernist design, Spaulding & Rex incorporated the same modular design, low massing, and easy indoor-outdoor connections typical of the era (and mid-century modernism in Southern California). Cross-lighting was provided through bands of clerestories and single-pane fixed and casement windows. A network of canopied corridors linked buildings and facilities throughout the campus. In a nod to the aerospace industry employing much of the adjacent community, the campus cafeteria featured a circular, space-age design. The campus overall displays a decentralized but unified plan, zoned for automobile and pedestrian-only areas, with pavilion-like classrooms wings "clustered" around courtyards. Another District example of a hybrid finger and cluster-plan school is the George K. Porter Middle High in Granada Hills. Built in 1959 and designed by Rowland H. Crawford, the campus displays a

pavilion-like plan, with axial classroom wings connected by a central corridor. Swaths of landscaped patios divide the classrooms. Interrupting the axis, the focal point of the campus is a landscaped quad, with an expansive lawn ringed by trees creating a neighborhood, park-like setting.

The George K. Porter Junior High also reflects how Los Angeles's still-expanding suburbs provided a testing ground for modern design and programming ideas school plants. These buildings and so many others like them reflect how the suburbs continued to expand, especially throughout the San Fernando Valley, and how by the late 1950s mid-century modernism enjoyed wide acceptance among the public."[6]

Educating the Baby Boom: The Postwar Modern Functionalist School Plant, 1945–1969

Grant High School was constructed from 1958 to 1959, during a period theme characterized by the District as "Educating the Baby Boom: The Postwar Modern Functionalist School Plant, 1945–1969."

"By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). But, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion-like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s–1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the post-war years brought another round of reform as well as unprecedented expansion. Given the post-war classroom shortage, many campuses were constructed quickly, from standardized plans used districtwide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school."[7]

Grant High School History

Grant High School was originally constructed from 1958 to 1959. It was designed by the firm of Stanton and Stockwell. The school opened in September of 1959 and was considered "an excellent public institution"[8] into the 1970s. Ethnic tension between Armenian and Latino students in the 1990s caused a decline in the school's reputation; and eventually a 200-student melee injured students, teachers, and other workers at the school. Despite a declaration of peace, a larger 500-student fight occurred in 2005. Ethnic tensions still take place at the campus despite the opening of East Valley High School, which absorbed many of Grant High School's ninth and tenth graders.

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6 *Ibid.*

7 *Ibid.*

8 Cohen, Reut. 1980. Grant High's Novinger Uses Empathy To Help Keep The Peace (Archive). *Neon Tommy*.

Grant High School was featured as the source for 1982 graduates used in an April 2008 *Newsweek* article on divorce in America. In a search for images of Grant High School, an image of the campus architecture was found to be the featured photo in Wikipedia's article about the community of Valley Glen.

Architects

Stanton and Stockwell designed the 1958–1959 Grant High School campus. Partners Jesse Earl Stanton and William Francis Stockwell are known also for their contributions to the Mosk Courthouse and Kenneth Hall of Administration complexes, both in downtown Los Angeles, as well as two multistory state office buildings on South Broadway built around 1960. Their design of a 1957 USC campus building known as Trojan Hall shows similarities in materials and massing to the Grant High School campus (Figure 3, *View of Trojan Hall on the USC Campus, Designed by Grant High School Architects Stanton and Stockwell in 1957*). While an intensive search of LAUSD files was not possible, and although SurveyLA stated Stanton and Stockwell "completed a number of campus designs for the LAUSD," there have been no examples located at this time of any other campuses designed by Stanton and Stockwell. A complete review of LAUSD campuses evaluated in the *Los Angeles Unified School District Historic Resources Survey Report* did not reveal any other campuses designed by the firm among the 55 that were reviewed.[9]

Figure 3. View of Trojan Hall on the USC Campus, Designed by Grant High School Architects Stanton and Stockwell in 1957
SOURCE: *Courtesy of PublicArtinLA.com, 2017,*
Compiled by Ruth Wallach, University Libraries, from records in University Archives

Neighborhood History

The community of Valley Glen is located in the west-central portion of the lower San Fernando Valley, within the City of Los Angeles, with boundaries including portions of Woodman Avenue, Coldwater Canyon, Sherman Way, and Burbank Boulevard.

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[9] Los Angeles Unified School District. June 2014. *Historic Resources Survey Report*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

The lower San Fernando Valley was a part of the larger San Fernando Mission settlement that was granted to Andres Pico in 1846 by his brother Governor Pio Pico. A split of the Picos' lands in 1873 resulted in James Lankershim and his "San Fernando Farm Homestead Association" obtaining Andres Pico's half of the San Fernando Valley. His son-in-law Isaac Van Nuys then took over the operation of dry wheat farming. Residential subdivision of the area took place as part of a real estate development scheme by a Los Angeles syndicate created around 1909 to exploit the completion of the Los Angeles Aqueduct. The town of Van Nuys would become one of the earliest and fastest-growing new towns in the Valley. The Valley Glen area was largely developed after the Second World War in the 1950s as a part of suburbanization that swept through Southern California. The Valley Glen neighborhood was originally a portion of both Van Nuys and North Hollywood. In 1994 residents sought to create a tighter sense of community and in June of 1998 officially changed the name of the neighborhood.[10]

The former Southern Pacific Railroad Burbank branch runs though the southwest portion of Valley Glen and has served railroad traffic for more than 100 years.[11] The Victory Drive-In Movie Theater was one of the more prominent of Los Angeles area drive-in theaters, and a former 1920s nursery has become the community's local park. Valley Glen is home to Valley College.[12]

HISTORIC RESOURCES ASSESSMENT

Architectural Description

Located on a 32.1-acre site in the western San Fernando Valley community of Valley Glen, the Grant High School campus was designed and constructed between 1958 to 1959.[13] The campus comprises approximately 53 buildings and structures, 27 of which are considered permanent. As with many other late 1950s school plans, Grant High School emphasizes low massing, indoor-outdoor connections, cross-lighting, canopied pathways, and a decentralized plan. The campus design is defined by a form of cluster-plan for the campus core that dominates the northeast portion of the site. The Grant High School plan provides building siting and circulation design that creates both a strong, formally planned inward-facing focus as well as an equally strong and formal outward public face. Both of these aspects of the campus are created by two formal design elements: a central courtyard built as a part of the entry axis that runs from north to south and serves as a shared central hub around which core buildings are clustered and the placement of buildings in a manner designed to fortify the campus perimeter, especially at its only significant public exposure along Oxnard Street at the north. The interconnection between these building and landscape elements requires that both be discussed when describing either (Table 1, *Primary Permanent Buildings within Grant High School Campus Core*).

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[10] Fong, Weissglass, and Fu. August 2014. *Neighborhood History: Valley Glen*. Accessed 7 March 2017 at: https://www.greatervalleyglencouncil.org/wp-content/uploads/2014/08/1_PPD-623_Identity-Action-Plan-History.pdf

[11] *Ibid.*

[12] Valley Glen Neighborhood Association. n.d. Accessed 7 March 2017 at: http://www.valleyglen.org/historical-photos/

[13] Los Angeles Unified School District. September 2011. *Ulysses S. Grant High School: Campus Pre-Planning Survey*. Prepared by: Harley Ellis Devereaux, Architect.

TABLE 1
PRIMARY PERMANENT BUILDINGS WITHIN GRANT HIGH SCHOOL CAMPUS CORE

Plan No.	Building Name	Year	Square Footage
1	Classroom Building West	1959	N/A
2	Art Building	1959	N/A
3	Utility Building	1959	N/A
4	Industrial Arts Building	1959	N/A
5	Physical Education Building	1959	31,812
20	Lath House	1959	N/A
23	Agricultural Classroom Building	1959	N/A
25	Sanitary Building	1959	N/A
27	Industrial Arts Building	1959	N/A
29	Library Building	1959	4,135
30	Administration Building	1959	N/A
31	Multi-Purpose Building (Assembly & Cafeteria)	1959	8,216
32	Classroom Building	1964	N/A
33	Classroom Building	1964	N/A
34	Classroom Building East	1958	N/A

The campus's north-south central entry axis begins at Oxnard Street, where twin two-story L-plan classroom buildings, set back from the street by formal lawn areas, flank the school's wide formal entrance, which is spanned by a bridge linking both buildings (Figure 4, *View of Entrance and Central Axis*). The axis serves as the location for a wide linear alley containing a series of formal central courtyard features that includes four small and three large rectangular beds of mature trees, a concrete stage, and other rectangular and irregularly shaped areas of greenscaping and hardscaping (Figure 5, *View of Courtyard Stage Feature of Campus Core Plan*). The courtyard alley serves as the central hub upon which primary classroom buildings are clustered; it features a rectangular arrangement of canopied walkways around its outer edges that connect all campus core buildings (Figure 6, *View of Canopied Pathways of Circulation Plan*). These core buildings consist of four low-massed primary buildings (library, administration, art, and industrial arts) that flank the central courtyard area on its east and west sides, with two large but visually secondary buildings (physical education and cafeteria) along its southern border. The primary buildings are designed to connect to the courtyard in a manner that contributes to the indoor-outdoor integration of the campus. The secondary buildings contain largely blank façades, other than the open cafeteria pavilion. The campus architecture consists primarily of simple flat-roofed, brick-clad, one-story, rectangular buildings, with no ornament other than simple concrete pilasters filled with brick paneled bays, a design feature that visually suggests a modular technique from one building to the next (Figure 7, *View of Brick-Clad Bays*).

Figure 4. View of Entrance and Central Axis
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 5. View of Courtyard Stage Feature of Campus Core Plan
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 6. View of Canopied Pathways of Circulation Plan
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 7. View of Brick-Clad Bays
SOURCE: *Courtesy of Debi Howell-Ardila, LAUSD, 2017*

The partial closure of the massive front entry has slightly affected how the original campus plan of Grant High School functions. The limited use of the skybridged formal north entrance to the campus core for security reasons has increased the use of the east access area along the Lancer Lane driveway

and through the outer entrances at the Administration and Library buildings, which are intended to serve both inward and outward campus core functions at the eastern perimeter of the school. A drive-through drop-off is located outside of those buildings, increasing the use of that period feature but reducing the use of the formal north entrance. While no architectural alterations have been made in this respect—the campus remains decentralized, and its design encourages indoor-outdoor integration—the outward-facing aspects along the eastern campus exterior, encouraged by the adjacent river bed and accompanying outer green space, have made exiting to the parking areas along the driveway convenient and desirable to students and faculty while reducing activity at the north. This has slightly lessened the functional aspect of the inner campus core site design, especially the northern-most courtyard areas just inside the formal bridged entrance.

The buildings discussed below are all located within the rectangle of the original campus core.

The Library Building (four bays wide) and Administration Building (five bays wide) are similar in size and design. Both buildings run east-west and feature more formal, yet simple, concrete and wood entrance porches that project east to serve the outer employee parking areas and drop-off. The Administration Building has a two-bay porch with the attached bay infilled and windowed as an enclosed vestibule and one open outer bay (Figure 8, *South View of Administration Building*); while the Library Building's porch is simply open, with one bay, and is offset to the southernmost bay of the east elevation (Figure 9, *View of Library Building Entrance*). These porches, like many other campus-core building entrances, employ transommed doorways with windows featuring a decorative staggered multi-light layout that emulates the graphic design sensibilities of their 1950s period of origin. Neither building has fenestration on their east walls, but both feature groupings of steel multi-light casement windows on their side and courtyard-facing elevations (Figure 10, *View of Window Groupings*).

Figure 8. South View of Administration Building
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 9. View of Library Building Entrance
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 10. View of Window Groupings
SOURCE: *Sapphos Environmental, Inc., 2017*

The flat-roofed Industrial Arts Building and Art Building, located on the opposite side of the interior courtyard of the campus core from the Library Building and Administration Building, present a more linear face to the courtyard, both at nine-bays long. The buildings run north-south, but the Art Building has a rear wing that sweeps back to form a long L-plan footprint. The Industrial Arts Building has partial brick infill of windows and clerestorys at five of its bays. It appears these may be later alterations carried out for practical reasons, possibly involving the function of the building (Figure 11, *View of Industrial Arts Building from Courtyard Area*). Whatever date this infill occurred, the effect is to significantly reduce the indoor-outdoor integration of this building. A separate "Industrial Arts Building" exists behind the courtyard Industrial Arts Building; it in effect serves as a separate but additional wing sweeping back to the rear vehicle access areas. It is a taller, one and one-half story brick-clad building that employs groupings of three or four large, 24-light industrial-type windows along its elevations and has entrances featuring plain steel doors with simple projecting concrete porch roofs (Figure 12, *South View of Rear Industrial Arts Building*).

Figure 11. View of Industrial Arts Building from Courtyard Area
SOURCE: *Courtesy of Debi Howell-Ardila, LAUSD, 2017*

Figure 12. South View of Rear Industrial Arts Building
SOURCE: *Sapphos Environmental, Inc., 2017*

The flat-roofed gymnasium, which from the courtyard appears largely as a blank brick and concrete box partially obscured by the canopied walkway, employs a much more stylize projecting brick façade facing north. The façade employs broken massing and staggered heights along its length, and single- and three-bay tall entrance porches above concrete ramped entrances (Figure 13, *View of South Elevation of Physical Education Building*).

Figure 13. View of South Elevation of Physical Education Building
SOURCE: *Sapphos Environmental, Inc., 2017*

The Multi-Purpose Building contains the assembly hall and cafeteria and includes the dining pavilion that opens to the canopied walkways and courtyard. It is a fully brick-clad building of two-story height with virtually no decorative touches beyond the use of a full-length window in the dining pavilion that employs opaque glass with a similar staggered geometric light design as used at the entry transoms around the campus (Figure 14, *South Interior View of Cafeteria Building Pavilion*). At its outward-oriented east facades, the Multi-Purpose Building has a large side entry providing access to both a long entry hall and the inner campus. The transom here again displays the staggered geometric multi-light design (Figure 15, *View of Canopied and Transommed Entrance of Multi-Purpose Building*).

Figure 14. South Interior View of Cafeteria Building Pavilion
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 15. View of Canopied and Transommed Entrance of Multi-Purpose Building
SOURCE: *Sapphos Environmental, Inc., 2017*

Classroom Building West and Classroom Building East are two-story "L"-plan bookend buildings at the front, Oxnard Street north end of the campus. The buildings employ similar brick-filled bay treatments and projecting concrete pilastered surrounds, but with 20-light windows within each bay at both levels, and also have flat roofs with no overhanging eaves (Figure 16, *View of Classroom Building West*). Here the bridged gap between the two buildings forms the wide original formal public entrance to the central courtyard axis. In some respects, the campus architecture here suggests a simple vernacular homage to the New Formalism style, which began gaining favor in the mid-1950s. The tall concrete piers and canopy of the bridge at the north entrance, for instance, suggest some relationship to the 47-foot-high Mark Taper Forum colonnade that was to be constructed just a few years later (Figure 17, *View from Street Entrance of Skybridge Linking Classroom Building West and Classroom Building East*). Two-story height shallow entrance porches are also featured on these buildings and employ the same decorative staggered multi-light transoms as the entrances at the Library and Administration Building (Figure 18, *View of Entrances at Classroom Buildings East and West*).

Figure 16. View of Classroom Building West
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 17. View from Street Entrance of Skybridge Linking Classroom Building West and Classroom Building East
SOURCE: *Sapphos Environmental, Inc., 2017*

Figure 18. View of Entrances at Classroom Buildings East and West
SOURCE: *Sapphos Environmental, Inc., 2017*

The Utility Building is within the main campus core, but hidden from the central courtyard behind the Industrial Arts and Art buildings. It also employs the same brick-filled bay treatment as most other campus core architecture (Figure 19, *View of Utility Building South Entrance*).

Figure 19. View of Utility Building South Entrance
SOURCE: *Sapphos Environmental, Inc., 2017*

All of the aforementioned buildings date from the original 1958–1959 construction period of the campus. Two additional permanent buildings that lie just outside the rectangle of the main campus core are two-story 1964 classroom blocks of low-design and unnamed. They do not contribute aesthetically to the original campus or offer any other architectural merit.

Overall, the main campus core portrays a mostly unified face of open and canopied pathways and concrete-trimmed brick buildings, fronted by the tall public face of the two-story north perimeter buildings with their wide skybridged formal entrance, and additionally accessed by the lower, visually accessible east perimeter that provides another area of penetration to the campus core. The rhythm and balance of this campus cluster-plan is created more by building height and massing, along with outdoor landscaped areas, than by building placement or footprint.

Altered Features

The southern end of the main campus core courtyard axis features a curved wall defining a curving patio area that features no-original brick pavers and large red brick planter (Figure 20, *View of Altered South End of Central Courtyard*). No other significant modern alterations were noted outside of the existence of modern portable/temporary classroom modules that are sited outside of the original main campus core.

Figure 20. View of Altered South End of Central Courtyard
SOURCE: *Sapphos Environmental, Inc., 2017*

Significance Criteria

A significant historical resource as defined by CEQA is a property that is listed in, or eligible for listing in, the CRHR, County Register, and/or National Register of Historic Places (NRHP). Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California 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."[14] Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:[15]

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.[16] Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.[17]

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[14] California Public Resources Code, Section 5024.1(a).

[15] California Public Resources Code, Section 5024.1(c).

[16] Office of Historic Preservation. n.d. *Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California Register)*. Available at: www.ohp.parks.ca.gov

[17] *Ibid.*

LAUSD Eligibility Standards

The LAUSD holds that to possess eligibility for the CRHR against the context theme of "Educating the Baby Boom: Postwar Expansion and the Modern Functionalist School Plant, 1945–1969,"[18] a historic resource must meet LAUSD's Integrity Considerations and the following eligibility criteria:

- Clearly embodies the characteristics of a postwar modern functionalist school campus
- Displays a unified, functional site design, with buildings extending across the site and oriented in relation to outdoor spaces (courtyards, patios, outdoor play areas)
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, fingerlike wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Evaluation of Significance

This evaluation investigated the primary 1958–1959 Grant High School campus core, including planned circulation elements and covered walkways; original landscaping; concrete and brick and concrete stage; brick walls; and the following contributing concrete and brick buildings: Administrative Building, Library, Multi-Purpose Building (Cafeteria & Store), Physical Education Building, Industrial Arts Building, Art Building, Classroom Building West, Classroom Building East, both 1964 Classroom Buildings, and Utility Building. The campus was evaluated for its eligibility for listing in the CRHR against the LAUSD theme of "Educating the Baby Boom: Postwar Expansion and the Modern Functionalist School Plant, 1945–1969," as no other LAUSD themes were found to sufficiently apply. Character-defining exterior features of Grant High School campus include, but are not limited to:

- Low-massing (one-story)
- Decentralized cluster plan site design
- Central axis courtyard clustering and multiple greenspace area inward focus
- Primary (original) north-south entrance axis
- Indoor-outdoor connections and relationships
- Wide concrete walkways
- Canopied outdoor corridors and pathways supported by metal pipe columns
- Original fenestration with grouped and varied window sizes providing light

SurveyLA has included Grant High School in their results under the theme of "Public Schools and the LAUSD, 1876–1980," stating, "Due to the relatively common nature of these resources, only those examples that are highly intact in terms of buildings site plan, and landscape were recorded as eligible." Grant High School was found eligible for the CRHR under Criteria 1 and 3, and described as an "excellent example of a post–World War II LAUSD high school campus reflecting LAUSD school planning and design concepts of the postwar period."[19] SurveyLA praised Grant High School, stating the campus "exemplifies the postwar design concepts with large windows, exterior corridors with covered walkways, landscaped central courtyard, and substantial amounts of outdoor space dedicated

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[18] Los Angeles Unified School District. June 2014. *Historic Resources Survey Report*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

[19] Survey LA. 15 August 2015. *Van Nuys and North Sherman Oaks Report. p. 202.*

to recreation."[20] However, there is no evidence that the SurveyLA team fully entered the campus, and their description states that building numbers were "estimated using aerial photographs."[21]

This investigation found that significant alterations to the campus have affected a determination of eligibility. Partial brick infill—from a campaign of an undetermined date—of five bays of the courtyard window openings of the Industrial Arts Building has reduced the inner-campus's indoor-outdoor integration, a situation emphasized by the limited number of low-massed buildings clustered around the courtyard/axis. With only four 1-story primary buildings effectively facing the courtyard area—six, if the windowless Physical Education Building and Cafeteria dining pavilion are included—the loss of even a few of the windows on just one building poses an impact to the integrity of the campus to meet the LAUSD eligibility standards for postwar schools to display "easily identifiable indoor-outdoor spaces" and outdoor "connections to classrooms."[22] Grant High School retains less of the associative and character-defining features from the period of significance than it should to meet eligibility thresholds.

Further, while Grant High School embodies many of the characteristics of a postwar modern functionalist school campus, and the indoor-outdoor intention is manifested by the school's windows, canopied walkways, and public spaces—not least the central courtyard—the architectural merit Grant High School presents is a vernacular style with only minimal Mid-Century Modern influence in the design. The Historic Resources Survey Report referred to the campus as "a common but not outstanding exemplification of postwar LAUSD design ideas."[23] Of the more than 140 LAUSD campuses constructed during the 1950s, a number of higher-style, master-architect-designed, and/or more influential school campuses from the period are present in LAUSD's collection, making the Grant High School campus a lesser example in the inventory. Fourteen campuses were determined eligible for the NRHP from the 55 evaluated in 2014, for example. Kester Avenue Elementary School by Richard Neutra in Sherman Oaks is one such higher-style campus that is located close by to Grant High School and has been identified by the Getty's Preserve LA initiative in 2000 as meeting CRHR eligibility criteria. Grant High School less clearly embodies the characteristics of a postwar modern functionalist school campus.

The main campus core of Grant High School is therefore found ineligible for the CRHR under Criterion 1, based on its aforementioned inability to meet District criteria standards, the commonality of its design among the District's inventory of properties, and the alterations made to one of the primary classroom buildings, all of which prevent it from meeting the threshold for integrity against the context of institutional architecture/educational facilities in Los Angeles and theme of "Educating the Baby Boom: Postwar Expansion and the Modern Functionalist School Plant, 1945–1969."

Grant High School does not appear eligible for CRHR Criterion 2, as it has no known association with the lives of any persons important to local, California, or national history.

Grant High School does not appear eligible for CRHR Criterion 3. While its campus planning displays a Mid-Century Modern cluster-plan design, it uses relatively common materials and utilitarian design elements for most of its buildings, and its architecture is not outstanding within the context of the many

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[20] *Ibid*, p. 201.

[21] *Ibid*, p. 201.

[22] Los Angeles Unified School District. June 2014. *Historic Resources Survey Report*. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

[23] *Ibid*.

high-style and/or trendsetting postwar LAUSD campuses that survive in the San Fernando Valley. Nor is it the exceptional work of a master-architect.

The Grant High School campus property has been found to less clearly embody the characteristics of a postwar modern functionalist school campus, and to retain less of the associative and character-defining features from the period of significance needed to meet CRHR and LAUSD eligibility thresholds. Therefore, Sapphos Environmental, Inc. has determined that the Grant High School campus is ineligible for listing in the CRHR under all relevant criteria.

Statement of Integrity

Grant High School, the subject property, was not evaluated against the seven aspects of integrity as outlined in the California Code of Regulations, California Register of Historical Resources (Title 14, Division 3, Chapter 11.5, Section 4852(C)), as it was not found eligible under any of the LAUSD criteria.

CONCLUSION

This evaluation has included analysis of previous assessments of the Grant High School campus property and considered evidence supporting and denying the school's eligibility for the CRHR. Sapphos Environmental, Inc. has considered information provided by the LAUSD Office of Environmental Health and Safety staff during discussions at a February 22, 2017, meeting. Sapphos Environmental, Inc. has evaluated the school's place within LAUSD's inventory of postwar 1950 campuses, as well as assessing its role as the work of architects Stanton and Stockwell. As a result of the investigation, the Grant High School campus has been found to less clearly embody the characteristics of a postwar modern functionalist school campus, and to retain less of the associative and character-defining features from the period of significance than it should to meet eligibility thresholds. Grant High School's inability to meet LAUSD criteria standards, the commonality of its design among LAUSD's inventory of properties, and the alterations made to one of the primary classroom buildings prevent it from meeting the thresholds for integrity against the context of institutional architecture/educational facilities in Los Angeles and theme of "Educating the Baby Boom: Postwar Expansion and the Modern Functionalist School Plant, 1945–1969." Sapphos Environmental, Inc. has therefore determined that the Grant High School campus is ineligible for listing in the CRHR, and the property is not a historical resource for the purposes of Section 15064.5(a) of the CEQA Guidelines. Should there be any questions regarding the information contained in this report, please contact Mr. Donald M. Faxon at (626) 683-3547, ext. 151.

ATTACHMENT 1
RESUME OF PROJECT PERSONNEL

Sapphos environmental inc

Donald M. Faxon, M.A.

Architectural Historian
Preservation Specialist

Master of Arts (Historic Preservation), Savannah College of Art & Design, Savannah, Georgia 2014

Bachelor of Science (Public Communications), Boston University, Boston University, 1986

- *Cultural resources management and legal compliance*
- *History of California*
- *Identification and evaluation of the built environment*
- *Archival documentation*
- *Historic preservation consultation*
- *Historic treatment planning, monitoring, and management.*
- *ADA assessment*
- *Historic Structure reports and conditions assessment*
- *Scientific materials evaluation*

Years of Experience: 25

- *Society of Architectural Historians*
- *Former Cultural Heritage Commissioner, City of Sierra Madre*
- *Sigma Pi Kappa Historic Preservation Fellowship*
- *Architectural History*
- *Cultural History*

Donald M. Faxon has professional experience as both an Architectural Historian and Architectural Preservation Specialist. He served as Senior Historical Architect at a state office of historic preservation (SHPO) and as a city Cultural Heritage Commissioner; and has worked for the National Park Service and the National Trust for Historic Preservation. He has explained, interpreted, applied, and/or enforced the Secretary of the Interior's Standards in positions on both Coasts. His experience includes providing inventory, significance evaluations, re-use studies, and interpretation options; and architectural technical expertise in design review, visual and scientific condition assessments, preservation and conservation treatments, historic structure reports, project monitoring, compatible integration design for code required elements, and accessibility planning for the disabled. Additional skills include architectural project planning and monitoring. He has prepared technical reports for historical built environment resources to satisfy compliance requirements under CEQA, Section 106, and local ordinances.

Mr. Faxon has more than 25 years of experience as a historic preservation professional on projects involving a wide variety of building, structure and landscape styles and types, including agricultural, maritime, industrial, residential, commercial, transportation, civic, religious, entertainment, and military related resources.

Mr. Faxon's selected project experience includes:

- Secretary of the Interior's Standards Conformance Review for Los Angeles Unified School District's Lincoln High School HVAC project.
- Evaluation and recommendations for properties owned by the Preservation Society of Newport County (The Newport Mansions) for Americans with the Disabilities Act accessibility; Newport, RI
- Secretary of the Interior's Standards evaluation of "Old State House" buildings and other properties owned by the State Government of Rhode Island for repair, restoration, and Americans with the Disabilities Act accessibility, Providence, RI; including design recommendations and implementation.
- Evaluation of the state-owned Veteran's Auditorium in Providence Rhode Island for Americans with the Disabilities Act accessibility.
- Evaluations and historic contexts for multiple County parks for the Los Angeles Department of County Parks and Recreation, including assessment for the NRHP, SRHP, and County Register.
- Cultural Resource Management Plan research and preparation for the Los Angeles Department of County Parks and Recreation.
- CEQA evaluation of historical significance and design review of the proposed rehabilitation of 71 Palomar Street; San Luis Obispo, CA.
- The administration and monitoring of Congressionally-funded seismic disaster grant projects at Castle Green Apartments, Pasadena; Shrine Auditorium, 665 Western Boulevard, Los Angeles; and Case Study House Number 18, 199 Chautauqua Blvd, Pacific Palisades, California.
- Field evaluations and recommendations for endangered properties at Rocky Mountain National Park, Colorado.

Appendix D

Geotechnical Evaluation (Ninyo & Moore)

GEOTECHNICAL EVALUATION
ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
13000 OXNARD STREET
LOS ANGELES UNIFIED SCHOOL DISTRICT
VAN NUYS, CALIFORNIA

PREPARED FOR:
Los Angeles Unified School District
333 South Beaudry Avenue, 23rd Floor
Los Angeles, California 90017

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

May 12, 2017
Project No. 209381009

May 12, 2017
Project No. 209381009

Mr. Peyman Soroosh Moghadam
Design and Architectural/Engineering Technical Support
Los Angeles Unified School District
333 South Beaudry Avenue, 23rd Floor
Los Angeles, California 90017

Subject: Geotechnical Evaluation
Ulysses S. Grant High School Modernization
13000 Oxnard Street
Los Angeles Unified School District
Van Nuys, California

Dear Mr. Moghadam:

In accordance with your request, we have performed a geotechnical evaluation for the proposed modernization improvements to the Ulysses S. Grant High School located at 13000 Oxnard Street in Van Nuys, California. This report summarizes our findings and conclusions regarding the site geotechnical conditions and provides geotechnical recommendations for construction of the planned improvements. Our study was conducted in general accordance with the scope of services presented in our revised proposal dated August 17, 2016.

Ninyo & Moore appreciates the opportunity to be of service to you on this project.

Respectfully submitted,
NINYO & MOORE

Franklin M. Ruiz, PE
Project Engineer

Garreth M. Saiki, PE, GE
Principal Engineer

Ronald Hallum, PG, CEG
Principal Geologist

Daniel Chu, PhD, PE, GE
Chief Geotechnical Engineer

FR/RAH/RDH/DC/GMS/sc

Distribution: (1) Addressee (via e-mail)

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1. INTRODUCTION

In accordance with your request, we have performed a geotechnical evaluation for the Ulysses S. Grant High School Modernization project located at 13000 Oxnard Street in Van Nuys, California (Figure 1). We performed a preliminary geotechnical and geologic seismic hazard evaluation for modernization of the site, the results of which were presented in our referenced report dated September 29, 2015. Thereafter, the Los Angeles Unified School District (LAUSD) revised the design and proposed the construction of one single-story and one two-story building, and other site improvements. Based on the revised design, we performed additional subsurface and laboratory analyses. The purpose of this study was to supplement our previous preliminary evaluation of the soil, seismic hazards, and geologic conditions and to provide geotechnical design recommendations for the design of the proposed improvements. This report presents our findings, conclusions, and recommendations regarding the subject project.

2. SCOPE OF SERVICES

Our scope of services for this project included the following:

- Project planning and coordination with representatives of LAUSD personnel to perform the work.
- Performance of a site reconnaissance to evaluate the existing site conditions and mark proposed boring locations for utility clearance.
- Review of background data, including in-house geotechnical data, State of California Earthquake Fault Zone (EFZ) maps, State of California Seismic Hazard Zones Maps, topographic maps, geologic maps and literature, and stereoscopic aerial photographs.
- Utility clearance at the boring locations using a private utility locator service.
- Subsurface evaluation consisting of the drilling, sampling and logging a total of fourteen small-diameter borings and advancing four cone penetration test (CPT) soundings. The borings were excavated to depths ranging from approximately 3 to 91½ feet. The CPT soundings were advanced to depths ranging from approximately 60 to 70 feet. The borings were logged by a representative from our firm, and bulk and relatively undisturbed soil samples were collected at selected intervals for laboratory testing. The borings were backfilled with on-site soils and capped with concrete in paved areas.
- Percolation testing performed in three of the borings to evaluate the infiltration rates of the near surface soils on site.

- Laboratory testing of selected samples to evaluate in-place moisture and density, percentage of particles finer than the No. 200 sieve, gradation, Atterberg limits, expansion index (EI), direct shear, consolidation potential, collapse potential, R-Value, and soil corrosivity.

- Compilation and geotechnical analysis of background information and field and laboratory data.

- Preparation of this geotechnical report presenting our findings, conclusions, and recommendations for the design of the proposed improvements.

3. SITE DESCRIPTION

The project site is situated at the southeast corner of the intersection of Ethel Avenue and Oxnard Street in the city of Van Nuys, California (Figure 2). The campus is bordered by the concrete-lined Tujunga Wash along the east, Oxnard Street to the north, Ethel Avenue to the west, and Hatteras Street to the south. Topographically, the site is on gently southward sloped terrain with elevations ranging from approximately 675 feet above mean sea level (MSL) at the northern portion of the site to approximately 670 feet above MSL at the southern portion of the site (United States Geological Survey [USGS], 1966). The site latitude and longitude are approximately 34.178 degrees north and 118.416 degrees west, respectively (Google, 2015).

We understand the campus was initially constructed in the 1920s and continued expanding with additional buildings through 2001. The site consists of existing classroom/administration buildings, portable buildings, gymnasium, and a lunch pavilion and cafeteria that occupy the near-center, eastern, and northern portions of the campus. The northwestern portion of the site consists of garden shacks, a garden area, associated garden appurtenances, and transformer and trash enclosures. Other improvements at the site include a football/track and field stadium, baseball fields, a softball field, tennis courts, asphalt-paved basketball courts, and volleyball courts on the western and southern portions of the campus. Asphalt-paved parking lots are located on the northwest and east corner of the campus area. The site vegetation consists of grass and trees of various sizes generally adjacent to existing buildings. The existing dirt field on the northwest portion of the site consisted of miscellaneous debris and tall grasses. The Jack London Continuation High School and Community Day School in the southeastern portion of the site are not included in this evaluation.

4. PROPOSED CONSTRUCTION

Based on our understanding, the modernization project will consist of the construction of two new Academy buildings, a horticulture building, maintenance and operations yard, and a multi-purpose field and serenity garden (Figure 3). The Academy buildings will consist of a two-story and one single-story/library building. Other site improvements will include seismic upgrades to the existing buildings at the north portion of the campus, new hardscape and landscape areas, and new underground utilities.

5. SUBSURFACE EVALUATION AND LABORATORY TESTING

Our original subsurface evaluation was conducted on June 9, 2015, and consisted of the drilling, logging, and sampling of four small-diameter borings (B-1 through B-4) to depths ranging from approximately 11½ to 91½ feet (Ninyo & Moore, 2015). A supplemental subsurface evaluation was conducted from September 27 through September 29, 2016, and consisted of drilling, logging, and sampling of ten small-diameter borings (B-5 through B-11 and P-1 through P-3), and four CPT soundings. The borings were drilled to depths ranging from approximately 3 to 91½ feet. The CPT soundings were advanced to depths ranging from approximately 60.3 to 70.7 feet where refusal occurred. The exploratory borings (B-1 through B-11 and P-3) were drilled using truck-mounted drilling equipment utilizing 8-inch-diameter hollow-stem augers, and an 8-inch-diameter hand auger (P-1 and P-2). The purposes of the borings and CPT soundings were to evaluate the soil and geologic conditions of the site and to collect bulk and relatively undisturbed soil samples for laboratory testing. Logs of the exploratory borings are presented in Appendix A. The CPT soundings are presented in Appendix C. The approximate locations of the borings are presented on Figure 3.

Laboratory testing was performed to evaluate in-place moisture and density, percentage of particles finer than the No. 200 sieve, gradation, Atterberg limits, EI, direct shear, consolidation potential, collapse potential, R-value, and soil corrosivity (soil pH, electrical resistivity, water-soluble sulfate content, and chloride content). Our laboratory test results are presented on the boring logs in Appendix A and in Appendix B.

6. GEOLOGY AND SUBSURFACE CONDITIONS

The project site is situated in the San Fernando Valley, which is located in the Los Angeles Basin of the Transverse Ranges Geomorphic Province (Norris and Webb, 1990). The province encompasses an area approximately 40- to 60-mile-wide (north to south) by 320 mile long (west to east) between Point Arguello and San Miguel Island on the west and Eagle and Pinto Mountains of the Mojave Desert on the east (Norris and Webb, 1990). The province consists of a region of generally east to west-trending mountain ranges considered atypical to the predominant northwest to southeast structural fabric of California. The atypical trend of the ranges is the result of a restraining bend ("the Big Bend") on the San Andreas fault that has rotated and compressed the region to its current configuration. The compression has resulted folding and reverse/thrust faulting with similar east to west trends as the topography that have created broad synclinal valleys bounded by anticlinal hills. The San Fernando Valley is a synclinal valley infilled with variable thicknesses of alluvial sediment over thick sequences of marine and non-marine sedimentary rock. According to geologic maps by Dibblee (1991) and Yerkes (1996, 2005), the subject site is underlain by unconsolidated and uncemented Holocene-age alluvial fan deposits consisting of gravel, sand, silt, and clay (Figure 4).

During our subsurface evaluation, pavement, undocumented fill and alluvial deposits were encountered in our borings to the total depths explored of approximately 91½ feet. The pavement sections encountered at borings B-1, B-4, B-6, and B-8 consisted of asphalt concrete (AC) over aggregate base (AB) ranging from approximately 2½ inches over 4½ inches, 3½ inches over 6½ inches, 3 inches over 10 inches, and 3½ inches over 5 inches, respectively. Portland cement concrete was encountered at boring B-7 to a depth of approximately 3 inches. Undocumented fill was encountered beneath the pavement sections at borings B-1, B-4, B-7, and B-8 to depths ranging from approximately 1½ to 5 feet, and beneath the ground surface at boring B-2, B-5, and B-10 to depths ranging from approximately 3 inches to 5 feet. The fill generally consisted of brown, moist, medium dense, clayey sand, sandy silt and clay, and sand with variable amounts of gravel. Alluvial deposits were encountered beneath the fill, and at the ground surface of boring B-3, B-9, B-11, P-1 through P-3, to the total depths explored. The alluvial deposits generally consisted of brownish yellow, light brown, yellowish brown, reddish brown, and brown, dry to

wet, loose to very dense, silty sand, clayey sand, sandy silt, and sand with variable amounts of gravel, and pale brown, brown, reddish gray, moist, very stiff to hard, clayey silt. Detailed descriptions of the materials encountered in our borings are presented on the boring logs in Appendix A.

7. GROUNDWATER

Groundwater was observed at a depth of approximately 91 feet in boring B-3 at the time of drilling. Based on our review of the California Department of Conservation Seismic Hazard Zone Report (1997), the historical high depth to groundwater is mapped at the site as approximately 10 feet below the ground surface. Groundwater monitoring well data, available from the Los Angeles County Department of Public Works (LACDPW) website (2015), indicates that groundwater was at a depth of approximately 289 feet on November 18, 2008, in well number 3783B, located approximately ½ mile south of the project site. It should be noted that fluctuations in the level of groundwater at the subject site may occur due to variations in ground surface topography, groundwater pumping, subsurface stratification, rainfall, irrigation practices, and other factors which may not have been evident at the time of our evaluation.

8. FIELD PERCOLATION TESTING

Percolation testing was performed on September 29 and September 30, 2016, at the locations of Borings P-1 through P-3 to evaluate the infiltration rate of the on-site soils in the vicinity of the proposed bioswale retention area (Figure 2). Conceptual plans/drawings and/or designs for future infiltration system(s) were not available at the time of this report. The infiltration tests were performed between depths as indicated in Table 1. The tests were performed in general accordance with the LACDPW guidelines (LACDPW, 2014).

Preparation for percolation testing included installation of a 2-inch-diameter slotted polyvinyl chloride (PVC) pipe in borings P-1 through P-3 and backfilling the annular space between the pipe and the boring with gravel. The infiltration zones were pre-soaked with water for approximately four hours prior to performing percolation testing. Percolation testing was conducted by placing water in the PVC pipe to establish a head of water and measuring the drop

in water during time intervals ranging from approximately 10 minutes to 30 minutes. The measured rates of infiltration were adjusted based on the methods described by the LACDPW guidelines (LACDPW, 2014). At the end of the testing, the PVC pipes were removed, and the borings were backfilled with on-site soil.

The results of our percolation testing are presented in Table 1.

Table 1 – Percolation Test Results

Boring Location	Depth Interval (feet)	Adjusted Percolation Rate (inches per hour)[1]	Recommended Design Percolation Rate[2] (inches per hour)
P-1	2.0-3.0	20.0	7.0
P-2	2.0-3.0	36.0	12.0
P-3	8.0-15.0	1.10	0.4

Notes:
[1] Adjusted Percolation Rate using the reduction factor R_f based on LACDPW (2014) guidelines.
[2] Based on a correction factor of 3.0 per LACDPW (2014) guidelines.

9. FAULTING, SEISMICITY, AND GEOLOGIC HAZARDS

The site is located in a seismically active area, as is the majority of southern California. The numerous faults in southern California include active, potentially active, and inactive faults. As defined by the California Geological Survey (CGS), active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. The approximate locations of major faults in the site vicinity and their geographic relationship to the site are shown on Figure 5. Historical earthquakes more than magnitude 6.0 or earthquakes that caused significant loss of life and property within approximately 62 miles (100 kilometers) of the subject site are presented in Table 2.

Table 2 – Historical Earthquakes

Date	Name, Location, or Region Affected	Approximate Earthquake Epicenter to Site Distance in miles (km)	Earthquake Magnitude
January 17, 1994	Northridge	7.4 (11.9)	6.7
February 9, 1971	San Fernando	16.1 (25.8)	6.6
October 1, 1987	Whittier Narrows	20.6 (33.2)	6.0
March 11, 1933	Long Beach	40.7 (65.6)	6.4
December 21, 1812	Los Angeles, Ventura and Santa Barbara	40.9 (65.8)	7.1
December 8, 1812	Wrightwood	45.7 (73.6)	7.3
July 22, 1899	Wrightwood	53.0 (85.3)	6.4

Note:
CGS, 2007.

Based on Special Publication 116 (CGS, 1995), the project site is not located in an area mapped with selected geologic effects from the 1994 Northridge earthquake (i.e., large coherent landslides, rockfalls and shallow debris slides, liquefaction and lateral spreading effects, and shattered ridge tops). We were not made aware of reported damage from the 1994 Northridge earthquake at the time of this report.

The site is not located within a State of California EFZ (formerly known as Alquist-Priolo Special Studies Zone). However, the site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion in the project area is considered significant during the design life of the proposed structure. Figure 5 shows the approximate site location relative to the major faults in the region.

9.1. Fault Parameters

Table 3 lists selected principal known active faults that may affect the site, the maximum moment magnitude (M_{max}), and the calculated approximate fault-to-site distances using the USGS fault database (USGS, 2008).

Table 3 – Principal Active Faults

Fault	Fault to Site Distance miles (kilometers)	Maximum Moment Magnitude (M_{max})
Verdugo	4.2 (6.7)	6.8
Hollywood	6.0 (9.6)	6.7
Santa Monica	7.3 (11.7)	7.4
Sierra Madre (San Fernando)	7.8 (12.5)	6.7
Elysian Park (Upper)	8.2 (13.1)	6.7
Northridge	9.3 (15.0)	6.9
Newport-Inglewood (Los Angeles Basin)	9.4 (15.1)	7.2
Sierra Madre	9.6 (15.4)	7.2
Santa Susana	10.7 (17.3)	6.9
Puente Hills (LA)	11.0 (17.7)	7.0
Raymond	11.7 (18.8)	6.8
Malibu Coast	12.1 (19.4)	6.7
San Gabriel	12.2 (19.6)	7.3
Anacapa-Dume	13.4 (21.6)	7.2
Palos Verdes	16.5 (26.5)	7.3
Holser	18.2 (29.2)	6.8

The principal seismic hazards evaluated at the site are surface fault rupture, ground motion, liquefaction, dynamic settlement, and lateral spreading. Other geologic hazards evaluated included hydro-collapse potential, flood, tsunamis, and seiches hazards, and methane potential. A brief description of these hazards and the potential for their occurrences on site are discussed in the following sections.

9.2. Surface Fault Rupture

Based on our review of the referenced literature and our site reconnaissance, no active faults are known to cross the project site. Therefore, the probability of damage from surface fault rupture is considered to be low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

9.3. Ground Motion

The 2016 California Building Code (CBC) specifies that the Risk-Targeted, Maximum Considered Earthquake (MCE_R) ground motion response accelerations be used to evaluate seismic loads for design of buildings and other structures. The MCE_R ground motion response accelerations are based on the spectral response accelerations for 5 percent damping in the direction of maximum horizontal response and incorporate a target risk for structural collapse equivalent to 1 percent in 50 years with deterministic limits for near-source effects. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the site was calculated as 0.92g using the USGS (USGS, 2017) seismic design tool (web-based). Spectral response acceleration parameters, consistent with the 2016 CBC, are also provided in Section 11.3 of this report for the evaluation of seismic loads on buildings and other structures.

The 2016 CBC specifies that the potential for liquefaction and soil strength loss be evaluated, where applicable, for the mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration (PGA_M) with adjustment for site class effects in accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard.

Since the mapped spectral response acceleration parameter at 1-second period, S_1, is greater than 0.75g, the site should be assigned to seismic design category E in accordance with CBC Section 1613A.3.5. Accordingly, a site-specific ground motion analysis in accordance with ASCE 7-10 Chapter 21 is performed per CBC Section 1616A.1.3. The result of our analysis presented on Figure 6. Based on our site-specific ground motion analysis a mapped PGA_M of 0.658g can be used for liquefaction analysis.

9.4. Liquefaction Potential

Liquefaction is the phenomenon in which loosely deposited granular soils and cohesionless fine-grained soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Sufficient ground shaking duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure. This causes the soil to behave as a fluid for a short

period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. As shown on Figure 7, the project area is mapped in an area susceptible to liquefaction (CDMG, 1998).

Accordingly, liquefaction potential of subsurface soils was evaluated using the soil sampler blow counts recorded at various depths in exploratory borings and our laboratory test results for borings B-4, B-6, B-7, B-8, B-9 and B-11, as well as using the CPT soundings CPT-1 through CPT-4. The liquefaction analysis was based on the National Center for Earthquake Engineering Research (NCEER) procedure (Youd, et al., 2001) developed from the methods originally recommended by Seed and Idriss (Seed, H.B. and Idriss, I.M., 1982) using the computer program LiquefyPro (CivilTech Software, 2007). A design earthquake moment magnitude of 6.76 and an associated ground acceleration of 0.66g were used in the analysis. In accordance with the 2013 Division of State Architect (DSA) checklist for evaluation of schools, a historic high depth to groundwater of 10 feet below the existing ground surface, as indicated by CGS (CGS, 1997), was used in our liquefaction evaluation. Please note that this historically highest depth to groundwater was based on data from monitoring wells recorded in 1944 (California Department of Conservation, Division of Mines and Geology [CDMG], 1997). Wells monitored by the Upper Los Angeles River Watermaster (Blevins, 1995) indicate that the depth to groundwater in the Central San Fernando Valley, including the Van Nuys Quadrangle, have not recovered to the levels of the 1940s. Our liquefaction analysis indicates that the medium dense to dense, granular soil layers below the historic high depth to groundwater level and between depths of approximately 12 to 30 feet and 35 to 45 feet below the ground surface are susceptible to liquefaction during the design seismic event.

9.5. Dynamic Settlement of Saturated Soils

As a result of liquefaction, the proposed structures may be subject to several hazards, including liquefaction-induced settlement. In order to estimate the amount of post-earthquake settlement, the method proposed by Tokimatsu and Seed (1987) was used in which the seismically induced cyclic stress ratios and corrected N-values are related to the volumetric strain of the soil. The amount of soil settlement during a strong seismic event depends on the thickness of the liquefiable layers and the density and/or consistency of the soils.

Based under the current conditions, a post-earthquake total settlement of up to approximately 4 inches is calculated for the site. Based on the guidelines presented in CGS Special Publication 117 (CGS, 2008) and assuming relatively uniform subsurface stratigraphy across the site, we estimate differential settlement on the order of 2 inches over a horizontal distance of 40 feet. Results of our analysis are presented in Appendix D.

However, with the existence of a non-liquefiable soil crust overlying liquefiable soil, the performance of a low-rise building with shallow foundations founded on the non-liquefiable soil crust during a soil liquefaction event was observed to be generally satisfactory depending on the thickness of the non-liquefiable soil crust (Ishihara, 1995). In addition, Bouckovalas and Dakoulas (2007) developed a design procedure to estimate the bearing capacity, the degraded post-shaking factor of safety against bearing capacity failure and the dynamic settlement of a strip footing. Based on this procedure, as well as using our borings and laboratory test results, our analysis indicated that the estimated dynamic settlements under a 4-foot-wide footing are approximately ¾ inch for a 9-feet-thick non-liquefiable soil crust. The degraded post-shaking factor of safety against bearing capacity failure is approximately 2.6 with a bearing capacity (footing contact pressure) of 4,000 pounds per square foot (psf). Results of our analysis are presented in Appendix E.

9.6. Lateral Spread

Lateral spread of the ground surface during an earthquake usually takes place along weak shear zones that have formed within a liquefiable soil layer. Lateral spread has generally

been observed to take place in the direction of a free-face (i.e., retaining wall, slope, channel, etc.) but has also been observed to a lesser extent on ground surfaces with gentle slopes. An empirical model developed by Youd, et al. (2002) is typically used to predict the amount of horizontal ground displacement within a site. Other factors such as earthquake magnitude, distance from the causative fault, thickness of the liquefiable layers, and the fines content and particle sizes of the liquefiable layers also influence the amount of lateral ground displacement.

Based on the topography of the site, the distance to the free-face (about 200 feet west of the site), the thickness of the potentially liquefiable layer, and the corrected sampler blow counts within the liquefiable layers that are in excess of 15, the site is considered to be susceptible to seismically induced lateral spread. Our evaluation of lateral spread indicates that up to about 2½ inches of lateral displacement may occur in the easterly direction following the seismic event.

9.7. Hydro-collapse Potential and Stormwater Infiltration

The potential for settlement due to inundation of the underlying soils induced by the infiltration of storm runoff was evaluated using the hydro-collapse potential test performed in general accordance with the ASTM International (ASTM) test method D 5333. Our testing was performed on samples representing the granular soils from 25 to 26 ½ feet in B-3 and 15 to 16½ feet in B-7, and soils from 10 feet to 11½ feet in P-3.

Based on our test results, the hydro-collapse ranges from 0.1 percent to 0.2 percent for the layers tested at B-3, B-7, and P-3. Results from our consolidation test results indicate hydro-collapse in the soil encountered in B-2 at 20 to 21½ feet of 1 percent. This classifies the layers as having a negligible to slight degree of collapse potential. The results of the hydro-collapse potential tests are presented in Appendix B. However, please note that the City of Los Angeles Department of Building and Safety Guidelines for Storm Water Infiltration (LADBS, 2014) stipulate a minimum clearance of 10 feet from the bottom of the infiltration system to the historical high groundwater table. The historical high depth to groundwater is approximately 10 feet below the ground surface for the subject site.

Based upon the percolation test results, the recommended design percolation rates at locations P-1 through P-3 were 7, 12 and 0.4 inches per hour, respectively. The historic high groundwater is mapped at a depth of approximately 10 feet below ground surface at the site; however, groundwater was encountered at a depth of approximately 91 feet during drilling. Accordingly, it is our opinion, based on our subsurface exploration a design groundwater level of 90 feet below existing ground surface may be used for Low Impact Development (LID) improvements. Storm water should be collected and stored as may be required for Best Management Practice (BMP).

9.8. Landsliding

The site is located in an area of relatively gently southward sloping terrain. There are no mapped landslides on site or in the vicinity, and landsliding is not considered to be a potential hazard at the site.

9.9. Flood Hazards, Tsunamis, and Seiches

Flood Insurance Rate Maps (Federal Emergency Management Agency, 2008) indicate that the site is located in a Zone X area where the area is considered outside the 0.2 percent annual chance of flood plain. The site is mapped as having a potential for inundation from Hansen and Pacoima Dams located approximately 6 and 11 miles north-northeast, respectively (County of Los Angeles, 1990 and City of Los Angeles, 1996).

Tsunamis are long wavelength, seismic, sea waves (long compared to ocean depth) generated by the sudden movements of the ocean floor during submarine earthquakes, landslides, or volcanic activity. Seiches are waves generated in a large, enclosed body of water. The project area is not mapped within an area considered susceptible to tsunamis; however, since the site is mapped within inundation areas of the Hansen and Pacoima Dams, seiche inundation is a possibility (County of Los Angeles Department of Regional Planning, 1990).

9.10. Oil Fields of Methane Potential

Based on a review of the Safety Element for the City of Los Angeles (1996), the site is not located within an oil field and no oil wells are known to exist at the site. In addition, the site is not located within the boundaries of a methane or methane buffer zone, as mapped by the City of Los Angeles (2004).

10. CONCLUSIONS

Based on our subsurface evaluation, and our experience in the area, it is our opinion that the proposed project is feasible from a geotechnical standpoint, provided that the following recommendations are incorporated into the design and construction of the proposed project. In general, the following conclusions were made:

- The site is underlain by shallow fill and alluvial soils generally consisting of loose to very dense, sandy silt, clayey sand, silty sand, and sand, and firm to very stiff, clay and silty clay. Details regarding the original ground preparation and the placement and compaction of the fill soils are unknown. Unless documentation can be provided regarding the placement and compaction of the fill soils, these soils are considered not suitable for support of the proposed foundations.

- Excavations during site grading should be feasible with earthmoving equipment in good working order. We anticipate that the existing fill and alluvial materials may be reused as compacted fill.

- On-site soils should be considered as Type C soils in accordance with Occupational Safety and Health Administration (OSHA) soil classifications. Sandy soil may be prone to caving during earthwork operations. Temporary shoring should be provided in accordance with OSHA regulations.

- Laboratory testing indicates that the near-surface granular soils on site have a very low potential for expansion.

- Based on the results of our laboratory corrosion tests, the near-surface site soils can be classified as non-corrosive per the California Department of Transportation (Caltrans, 2012) corrosion guidelines

- The historical high depth to groundwater at the site is mapped at approximately 10 feet (CDMG, 1997); however, groundwater was encountered in our exploratory boring at a depth of approximately 91 feet during drilling. Moreover, groundwater monitoring well data indicate groundwater at a depth of approximately 289 feet below ground surface (LACDPW,

2015). Fluctuations in the groundwater level may occur as a result of variations in seasonal precipitation, irrigation practices, and other factors. Seepage should be anticipated.

- We estimated a PGA_{MCE} of 0.92g at the subject site. Our site-specific ground motion analysis in accordance with ASCE 7-10 indicated that the mapped PGA was estimated to be 0.658g.
- The subject site is not located within a State of California EFZ (formerly Alquist-Priolo Special Studies Zone). The probability of surface fault rupture at the site is considered low.
- The site is mapped within a State of California Seismic Hazards Zone as being potentially liquefiable (CDMG, 2005). Our site-specific evaluation using the historic high groundwater level indicates that the granular soil layers from approximately 12 to 30 feet and 35 to 45 feet are susceptible to liquefaction during the design seismic event.
- Liquefaction-induced ground settlement is estimated to be on the order of approximately 4 inches. A differential settlement on the order of 2 inches over a horizontal distance of 40 feet may be anticipated. Lateral spread due to liquefaction is estimated to be on the order of approximately 2½ inches.
- The site is not located in an area considered susceptible to landsliding or tsunamis.
- The area of the proposed improvements is not located within a designated flood zone; however may be susceptible to inundation associated with the Hansen and Pacoima Dams resulting from seiches, dam failure, or other.

11. RECOMMENDATIONS

The following sections include our geotechnical recommendations for construction of the proposed improvements. These recommendations are based on our evaluation of the site geotechnical conditions and our understanding of the planned construction. The proposed site improvements should be constructed in accordance with the requirements of the DSA for school facilities and other applicable governing agencies.

11.1. Earthwork

Earthwork at the site is anticipated to consist of site clearing, removal and recompaction of existing fill and/or loose alluvial materials, and excavation for foundations. Earthwork will also include site preparation of building pad and pavement subgrades, trenching for new pipelines, grading for the new hardscape areas, and finish grading for establishment of site

drainage. Earthwork should be performed in accordance with the requirements of applicable governing agencies and the recommendations presented in the following sections.

11.1.1. Construction Plan Review and Pre-Construction Conference

We recommend that the grading and foundation plans be submitted to Ninyo & Moore for review to evaluate conformance to the geotechnical recommendations provided in this report. We further recommend that a pre-construction conference be held in order to discuss the grading recommendations presented in this report. The owner and/or their representative, the governing agencies' representatives, the civil engineer, Ninyo & Moore, and the contractor should be in attendance to discuss the work plan, project schedule, and earthwork requirements.

11.1.2. Site Preparation

Prior to excavation and fill placement, the site should be cleared of existing site improvements, surface obstructions and other deleterious materials, and abandoned utilities and stripped of rubble, debris, and vegetation, as well as surface soils containing organic materials. Existing utilities to remain in place (if any) should be located and protected from damage by construction activities. Obstructions that extend below the finished grade, if any, should be removed and the resulting holes filled with compacted soil. The materials generated from the clearing operations should be removed from the site and disposed of at a legal dump site.

11.1.3. Excavation Characteristics

We anticipate that excavations in fill and/or alluvium should be feasible with earthmoving equipment in good working order. The subsurface soils encountered in the exploratory borings are comprised predominantly of loose to medium dense, silty sand, sandy silt, and sand, and firm to stiff, sandy clay. Groundwater was encountered at depths of approximately 91 feet.

11.1.4. Excavations

We anticipate that excavations in the fill and/or alluvium should be feasible with earthmoving equipment in good working order. The near-surface soils encountered in the exploratory borings are comprised predominantly of loose to medium dense, silty sand, sandy silt, and sand, and firm to stiff, sandy clay. In our opinion, temporary slopes should generally be stable at inclinations up to approximately 1½:1 (horizontal to vertical). Some surficial sloughing may occur, and temporary excavations should be evaluated in the field in accordance with OSHA guidelines. The surficial soils should be considered as OSHA Soil Type C, and temporary excavations should conform with OSHA regulations.

Trenching will be performed for planned underground utilities. In general, dry utilities are anticipated to be relatively shallow (less than 5 feet deep). Some utilities, such as storm drain and sewer trenches, may be deeper, and shoring requirements may vary depending on trench depths, materials encountered, and adjacent improvements. Shoring should conform to OSHA requirements. Recommendations for temporary shoring can be provided, if requested. Spoils should not be placed near the edge of the open cut excavation. For open cut excavations, the spoil pile should be placed a distance more than the depth of excavation from the top of the excavation. OSHA and other applicable agency requirements pertaining to worker safety should be met during the excavation activities.

11.1.5. Subgrade Preparation

In order to reduce the potential of damage to footings and slab-on-grade due to liquefaction-induced dynamic settlement, we recommend that a relatively rigid soil mat consisting of compacted soil reinforced by two layers of Tensar Triax TX160 or equivalent be constructed below the proposed building footprint. The compacted soil mat should be 5-feet-thick or 3-feet below the bottom of the footing, whichever is thicker. The mat should extend laterally 5 feet beyond the building footprint. Two layers of geogrids, one placed at the bottom of the overexcavation and the other at 1.5 feet

above the first layer of geogrid, should be placed in between compacted fills. Geogrids and compacted soils should be placed in accordance with the project specifications and/or manufacturer guidelines. In the event that geogrids were damaged or need to be cut open for future construction, the damaged geogrids should be repaired. The repair should consist of removing fill soils approximately 3 feet beyond the damaged geogrid. The damaged geogrid should be cut and replaced with an overlap of one foot or more in each direction.

In order to perform the recommended overexcavation adjacent to the existing buildings, slot cutting will be appropriate to avoid undermining the existing foundations. The slot cuts should be performed utilizing the A-B method and the individual slot widths should be 5 feet or less. Where the overexcavation is away from the existing buildings, the limits of overexcavation should extend laterally beyond the building footprint to a distance of approximately 5 feet. The actual depths of overexcavation should be evaluated by our representative based on the materials exposed at the time of construction.

The subgrade at the bottom of the overexcavation should be scarified to a depth of 8 inches, moisture-conditioned to slightly above the laboratory optimum moisture content, and compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. The overexcavated areas should be backfilled to the finished grade with on-site granular soils compacted to a relative compaction of 90 percent

11.1.6. Fill Characteristics

In general, the on-site materials should be suitable for reuse as fill provided they are free of trash, debris, roots, vegetation, contaminated material, and/or other deleterious materials. The suitability of fill soils should be evaluated at the time of construction. Fill should generally be free of rocks or hard lumps of material larger than approximately 4 inches in diameter. Rocks or hard lumps larger than about 4 inches in diameter should be broken into smaller pieces or should be removed from the site.

Imported materials should consist of clean, non-expansive, granular material. Non-expansive can be fined as material with an EI of 20 or less as evaluated in accordance with ASTM D4829. Imported soils should also be tested for corrosive properties prior to importing. We recommend that imported materials meet the Caltrans (2012) criteria for non-corrosive soils (i.e., soils having a chloride concentration of 500 parts per million [ppm] or less, a soluble sulfate content of approximately 0.20 percent [2,000 ppm] or less, and a pH value of 5.5 or higher). It should be understood that the resistance to corrosion of the structural elements in contact with site soils may vary significantly due to variations in manufacturing concrete during construction. The contractor should be responsible for the uniformity of import material brought to the site. Import material should be submitted to Ninyo & Moore for review prior to importing to the site.

11.1.7. Fill Placement and Compaction

Fill soils placed should be compacted in horizontal lifts to a relative compaction of 90 percent as evaluated by ASTM D 1557. The lift thickness for fill soils will vary depending on the type of compaction equipment used but should generally be placed in horizontal lifts not exceeding 8 inches in loose thickness. Fill soils should be placed at slightly above the optimum moisture content as evaluated by ASTM D 1557. Special care should be taken to avoid damage to wet and dry utility lines when compacting fill and subgrade materials.

11.2. Seismic Design Considerations

Design of the proposed improvements should be performed in accordance with the requirements of governing jurisdictions and applicable building codes. Table 4 presents the seismic design parameters for the site in accordance with the CBC (2016) guidelines and adjusted MCE_R spectral response acceleration parameters.

Table 4 – 2016 California Building Code Seismic Design Criteria

Seismic Design Factors	Value
Seismic Design Category	E
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Acceleration at 0.2-second Period, S_s	2.291 g
Mapped Spectral Acceleration at 1.0-second Period, S_1	0.796 g
Spectral Acceleration at 0.2-second Period Adjusted for Site Class, S_{MS}	2.291 g
Spectral Acceleration at 1.0-second Period Adjusted for Site Class, S_{M1}	1.194 g
Site-Specific Design Spectral Acceleration at 0.2-second Period, S_{DS}	1.528 g
Site-Specific Design Spectral Acceleration at 1.0-second Period, S_{D1}	0.796 g

Since the site is in Seismic Design Category E, a site-specific ground motion analysis in accordance with CBC was performed and the result is presented on Figure 6.

For the proposed seismic retrofit of existing buildings, the general spectral response acceleration parameters for the BSE-2N, BSE-1N, BSE-2E and BSE-1E Seismic Hazard Levels in accordance with ASCE 41-13 procedures are presented in Tables 5, 6, 7, and 8, respectively.

Table 5 – ASCE 41-13 General Procedure for BSE-2N Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	2.291 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.796 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	2.291 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	1.194 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.527 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.796 g

Table 6 – ASCE 41-13 General Procedure for BSE-1N Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	2.291 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.796 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.528 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.796 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.019 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.531 g

Table 7 – ASCE 41-13 General Procedure for BSE-2E Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	1.670 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.569 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.670 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.853 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.113 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.569 g

Table 8 – ASCE 41-13 General Procedure for BSE-1E Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.151
Site Coefficient, F_v	1.786
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	0.872 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.307 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.004 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.548 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	0.669 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.365 g

11.3. Foundations

The proposed single-story and two-story buildings may be supported by shallow footings bearing on geogrid-reinforced compacted fill material provided that the buildings can be designed to tolerate the anticipated dynamic total and differential settlement up to 4 inches and 2 inches over a 40-foot span, respectively, during the design seismic event. Otherwise, buildings may be supported on drilled piers. Foundations should be designed in accordance with structural considerations and the following recommendations. In addition, requirements of the appropriate governing jurisdictions and applicable building codes should be considered in the design of the structures.

11.3.1. Spread Footings

The proposed buildings may be supported on shallow spread footings bearing on geogrid-reinforced fill material compacted in accordance with the recommendations presented in the Earthwork section of this report. Spread footings should be at a depth of approximately 24 inches below the adjacent finish grade. Square and continuous footings should have a width of 4 feet or more and 2 feet or more, respectively. Footings constructed near existing underground utility lines should be deepened such that the utility line is located above a 1:1 (horizontal to vertical) plane projected downward from the base of the footing. Continuous footings should be reinforced with four No. 4 steel reinforcing bars, two placed near the top and two placed near the bottom of the footings, and further detailed in accordance with the recommendations of the structural engineer.

Footings, as described above, may be designed using an allowable bearing capacity of 4,000 psf. Total and differential static settlements for footings designed and constructed in accordance with the above recommendations are estimated to be less than approximately 1 inch and ½ inch over a horizontal span of 40 feet, respectively. Due to the sandy nature of the underlying soils, we anticipate that the static settlements will occur during a short duration after the completion of the construction.

Footings bearing on compacted fill may be designed using a coefficient of friction of 0.35, where the total frictional resistance equals the coefficient of friction multiplied

by the dead load. Footings may be designed using a passive resistance of 350 psf per foot of depth for a level ground condition up to a value of 3,500 psf. The allowable lateral resistance can be taken as the sum of the frictional resistance and passive resistance, provided the passive resistance does not exceed one-half of the total allowable resistance. The passive resistance may be increased by one-third when considering loads of short duration such as wind or seismic forces.

11.3.2. Drilled Piers

Drilled piers may be utilized to support the proposed structures. Negative skin friction caused by liquefaction and subsequent settlement of layers above the liquefaction zone were considered in our pile capacity analysis. For design purposes, the length of the pile is referenced from the existing ground surface elevation.

11.3.2.1. Axial Capacity

The allowable loads and recommended lengths for the drilled piers were analyzed using the computer program SHAFT Version 6 (Ensoft, 2007). The axial capacity for a 24-inch-diameter drilled pier was evaluated. Our analysis included evaluation of the vertical downward and uplift capacities for the drilled piers. The uplift capacities represent two-third of the axial capacity. Pier weight could be added to these uplift capacities. Table 9 presents the vertical downward pile capacity for a 24-inch diameter drilled pier.

11.3.2.2. Lateral Capacity

The lateral pile capacities were evaluated for the fixed-head and free-head condition at lateral head deflection of ¼ inch and ½ inch using the computer program LPILE Version 6 (Ensoft, Inc., 2010). Maximum moments generated by the indicated deflections are based on geotechnical considerations. We recommend that the maximum moment capacities of the piles be evaluated by the structural engineer. Lateral capacities for pile lengths and embedment conditions that are different from those assumed in our analyses may be different from those indicated.

Results of our lateral pile capacity evaluation for a 24-inch-diameter drilled pier are summarized in Table 9.

Table 9 – Lateral Load Capacity of a 24-Inch-Diameter Drilled Pier

Pile Design Parameters	Pile Response Based on Head Deflection			
	Fixed Head		Free Head	
Design Shaft Length (feet)	65		65	
Allowable Pile Axial Capacity (kips)	140		140	
Allowable Uplift Capacity (kips)	110		110	
Lateral Deflection of Pile Head (inch)	0.25	0.50	0.25	0.50
Maximum Shear Force (kips)	43	59	21	27
Maximum Positive Moment (kips-foot)	83	104	88	117
Maximum Negative Moment (kips-foot)	171	252	9	12
Depth to Maximum Positive Moment (feet)	10	10	7	7
Depth to Maximum Negative Moment (feet)	0	0	27	27
Depth to Zero Deflection (feet)	14	14	10	10

11.3.2.3. Construction Considerations for Drilled Pier

The drilled pier construction should be observed by Ninyo & Moore during excavation to evaluate if the piles have been extended to the recommended depths. The excavations should be cleaned of loose soil and gravel. It is the Contractor's responsibility to take the appropriate measures to provide for the integrity of the excavation and to see that the excavations are cleaned and straight and that sloughed loose soil is removed from the bottom of the excavation prior to the placement of concrete. Drilled piers should be checked for alignment and plumbness during installation. The amount of acceptable misalignment of a pile is approximately 3 inches from the plan location. It is usually acceptable for a pile to be out of plumb by one percent of the depth of the pile.

Groundwater was encountered in our exploratory borings at a depth of approximately 91 feet. Accordingly, we don't anticipate that groundwater will be encountered in the drilled holes for the drilled piers. Seepage should be anticipated

in excavations above the groundwater table. We recommend that the contractor be prepared to take appropriate measures during construction to reduce the potential for caving of the drilled holes, including the use of casing and/or drilling mud. In addition, we recommend that special measures, such as placement of concrete by tremie method, are implemented to see that the aggregate and cement do not segregate during concrete placement.

11.3.3. Slabs-On-Grade

Building floor slabs should be designed by the project structural engineer based on the anticipated loading conditions. Building floor slabs may be supported by low-expansion potential compacted fill prepared in accordance with the recommendations presented in the Earthwork section. We recommend that floor slabs have a thickness of 5 inches or more and be reinforced with No. 4 steel reinforcing bars placed 18 inches on-center (each way) in the middle one-third of the slab height. The placement of the reinforcement in the slab is vital for satisfactory performance. The floor slab and foundations should be tied together by extending the slab reinforcement into the footings. The slab should be underlain by a polyethylene vapor retarder, 10-mil or thicker. The vapor retarder should further be underlain by a 4-inch-thick layer of sand or gravel with a particle size of approximately $^{3}/_{8}$ inch or smaller. The vapor retarder is recommended in areas where moisture-sensitive floor coverings are anticipated. Soils underlying the slabs should be moisture conditioned and compacted in accordance with the recommendations presented in this report prior to concrete placement. Joints should be constructed at intervals designed by the structural engineer to help reduce random cracking of the slab.

11.3.4. Exterior Sidewalks

Exterior flatwork may be supported on compacted on-site soils provided the soils are moisture conditioned as indicated in the Earthwork section of this report. Exterior slabs-on-grade may be 4 inches thick and reinforced with No. 3 reinforcing bars at a

spacing of 24 inches. The vapor retarder may be excluded beneath exterior slabs unless tile, paint, or other potentially moisture-sensitive surface treatments are used.

11.4. Underground Utilities

We anticipate that utility pipelines will be supported on alluvial deposits. The depths of the pipelines are not known; however, we anticipate that the pipe invert depths will not exceed 10 feet. Trenches should not be excavated parallel to building footings. If needed, trenches can be excavated adjacent to a continuous footing, provided that the bottom of the trench is located above a 1:1 (horizontal to vertical) plane projected downward from the outside edge of the adjacent footing at a point 6 inches above the bottom of the footing. Utility lines that cross beneath footings should be encased in concrete below the footing.

11.4.1. Pipe Bedding

We recommend that pipelines be supported on 4 inches or more of granular bedding material. Bedding material should be placed around pipe zones to 1 foot or more above the top of the pipe. The bedding material should be classified as sand, be free of organic material, and have a sand equivalent of 30 or more. We do not recommend gravel be used for bedding material because of the nature of the subsurface material. It has been our experience that the voids within gravel material are sufficiently large to allow fines to migrate into the voids, thereby creating the potential for sinkholes and depressions to develop at the ground surface.

Special care should be taken not to allow voids beneath and around the pipe. Compaction of the bedding material and backfill should proceed along both sides of the pipe concurrently. Trench backfill, including bedding material, should be placed in accordance with the recommendations presented in the following section.

11.4.2. Trench Backfill

Based on our subsurface evaluation, the on-site soils should generally be suitable for re-use as trench backfill provided they are free of organic material, clay lumps, debris, and rocks more than approximately 4 inches in diameter. We recommend that trench

backfilling be in general conformance with the Standard Specifications for Public Works Construction ("Greenbook") for structure backfill. Fill should be moisture-conditioned to at or slightly above the laboratory optimum. Wet soils should be allowed to dry to a moisture content near the optimum prior to their placement as trench backfill. Trench backfill should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. Lift thickness for backfill will depend on the type of compaction equipment utilized, but fill should generally be placed in horizontal lifts not exceeding 8 inches in loose thickness. Special care should be exercised to avoid damaging the pipe during compaction of the backfill.

11.4.3. Modulus of Soil Reaction

The modulus of soil reaction is used to characterize the stiffness of soil backfill placed along the sides of buried flexible pipelines for the purpose of evaluating deflection caused by the weight of the backfill above the pipe. We recommend that a modulus of soil reaction of 1,000 pounds per square inch (psi) be used for design, provided that granular bedding material be placed adjacent to the pipe, as recommended in the previous section.

11.5. Preliminary Pavement Recommendations

We understand that the proposed improvements may include new AC pavements for parking lots and driveways. The shallow subgrade soils encountered in our exploratory borings generally consisted of moist, silty sand and sand. Laboratory testing performed on a representative near-surface soil sample indicated an R-value of 73. Due to variable site materials, a design R-value of 60 was assumed in our analysis.

For the design of AC pavements, we used the methodology presented in the Caltrans Highway Design Manual (Caltrans, 2008) and the computer program CalFP Version 1.1 (Caltrans, 2008). We evaluated structural pavement sections assuming a traffic index (TI) of 4 for light-duty pavements, such as parking stalls for passenger cars, and TIs of 5 and 6 were assumed for heavy-duty pavements, such as driveways and areas subject to periodic heavy

truck traffic. Based on our analysis, our preliminary AC pavement sections are provided in Table 8.

Table 10 – Preliminary Flexible Pavement Structural Section

Traffic Index	Design R-Value	AC over CAB or AC over CMB (inches)	Full-Depth AC (inches)
≤ 5.0	60	3 over 4½	4
6.0	60	3½ over 4½	5

Notes:
AC – Asphalt Concrete
CAB – Crushed Aggregate Base
CMB – Crushed Miscellaneous Base

Subgrade soils in areas to be paved should be prepared as recommended in the Earthwork section of this report. The subgrade should be maintained in a moist, compact condition until AB or AC is placed over the subgrade. The subgrade in areas to receive AB should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. If full-depth AC is used for the project, the upper approximately 12 inches of subgrade should be compacted to a relative compaction of 95 percent as evaluated by ASTM D 1557. AB material should conform to the latest specifications in Section 200-2.2 for crushed AB or Section 200-2.4 for crushed miscellaneous base of the Greenbook and should be compacted to a relative compaction of 95 percent in accordance with ASTM D 1557. AC should conform to Section 203-1 of the Greenbook and should be compacted to a relative compaction of 95 percent per appropriate ASTM methods.

Pavement sections should be selected based on actual anticipated traffic loading conditions and evaluation of the subgrade materials at the time of construction. We recommend that the paving operations be observed and tested by Ninyo & Moore. We further recommend that mix designs be made for the AC by an engineering company specialized in this type of work.

11.6. Corrosivity

Laboratory testing was performed on representative near-surface soil samples to evaluate pH, electrical resistive, water-soluble chloride content, and water-soluble sulfate content. The soil pH and electrical resistivity tests were performed in general accordance with California Test Method (CT) 643. Chloride content tests were performed in general accordance with CT 422. Sulfate testing was performed in general accordance with CT 417. The laboratory test results are presented in Appendix B.

The soil pH was measured ranging from approximately 7.0 to 7.4. The electrical resistivity measurements ranged from approximately 2,670 to 6,922 ohm-centimeters. The chloride contents of the samples were measured to range from approximately 35 to 80 ppm. The sulfate content of the tested samples ranged from approximately 0.001 to 0.008 percent (i.e., 10 to 80 ppm). Based on the laboratory test results and Caltrans criteria, the project site can be classified as a non-corrosive site, which is defined as having earth materials with less than 500 ppm chlorides, less that 0.20 percent sulfates, and a pH of 5.5 or more.

11.7. Concrete Placement

Concrete in contact with soil or water that contains high concentrations of water-soluble sulfates can be subject to premature chemical and/or physical deterioration. The sample tested during this evaluation indicated water-soluble sulfate content ranging from approximately 0.001 to 0.008 percent by weight (i.e., 10 to 80 ppm). Based on the CBC criteria (CBC, 2016), the potential for sulfate attack is negligible for water-soluble sulfate contents in soils ranging from 0.00 percent to 0.10 percent by weight (0 to 1,000 ppm), indicating that the on-site soils may be considered to have a negligible potential for sulfate attack. Therefore, based on a CBC criteria (CBC, 2016), Type II cement may be used for concrete construction. The concrete should have a water-cement ratio no higher than 0.50 by weight for normal weight aggregate concrete and a 28-day compressive strength of 4,000 psi or more.

In order to reduce the potential for shrinkage cracks in the concrete during curing, we recommend that the concrete for the proposed structures be placed with a slump of 4 inches

based on ASTM C 143. The slump should be checked periodically at the site prior to concrete placement. We also recommend that crack control joints be provided in slabs in accordance with the recommendations of the structural engineer to reduce the potential for distress due to minor soil movement and concrete shrinkage. We further recommend that concrete cover over reinforcing steel for slabs-on-grade and foundations be provided in accordance with CBC (2016). The structural engineer should be consulted for additional concrete specifications.

11.8. Drainage

Good surface drainage is imperative for satisfactory site performance. Positive drainage should be provided and maintained to channel surface water away from foundations and off-site. Positive drainage is defined as a slope of 2 percent or more for a distance of 5 feet or more away from foundations and tops of slopes. Runoff should then be transported by the use of swales or pipes into a collective drainage system. Surface waters should not be allowed to pond adjacent to footings or on pavements. Concentrated runoff should not be allowed to flow over asphalt pavement as this can result in early deterioration of the pavement. We recommend that the structure have roof drains and downspouts installed to collect runoff. Area drains for landscaped and paved areas are recommended.

11.9. Landscaping

Project landscaping should consist of drought tolerant plants. Landscape irrigation should be kept to a level just sufficient to maintain plant vigor. Overwatering should not be permitted.

12. CONSTRUCTION OBSERVATION

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be

encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified, and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

13. LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

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AERIAL PHOTOGRAPHS				
Source	**Date**	**Flight**	**Numbers**	**Scale**
USDA	11-19-53	AXJ-14K	53 and 54	1: 20,000

REFERENCE: 7.5 MINUTE USGS TOPOGRAPHIC MAP OF VAN NUYS, CALIFORNIA QUADRANGLE, DATED 2015, SCALE 1:24000.

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	1
209381009	5/17		

209381009_SL.dwg 10:53:06 04/24/2017 GK

N

SCALE IN FEET

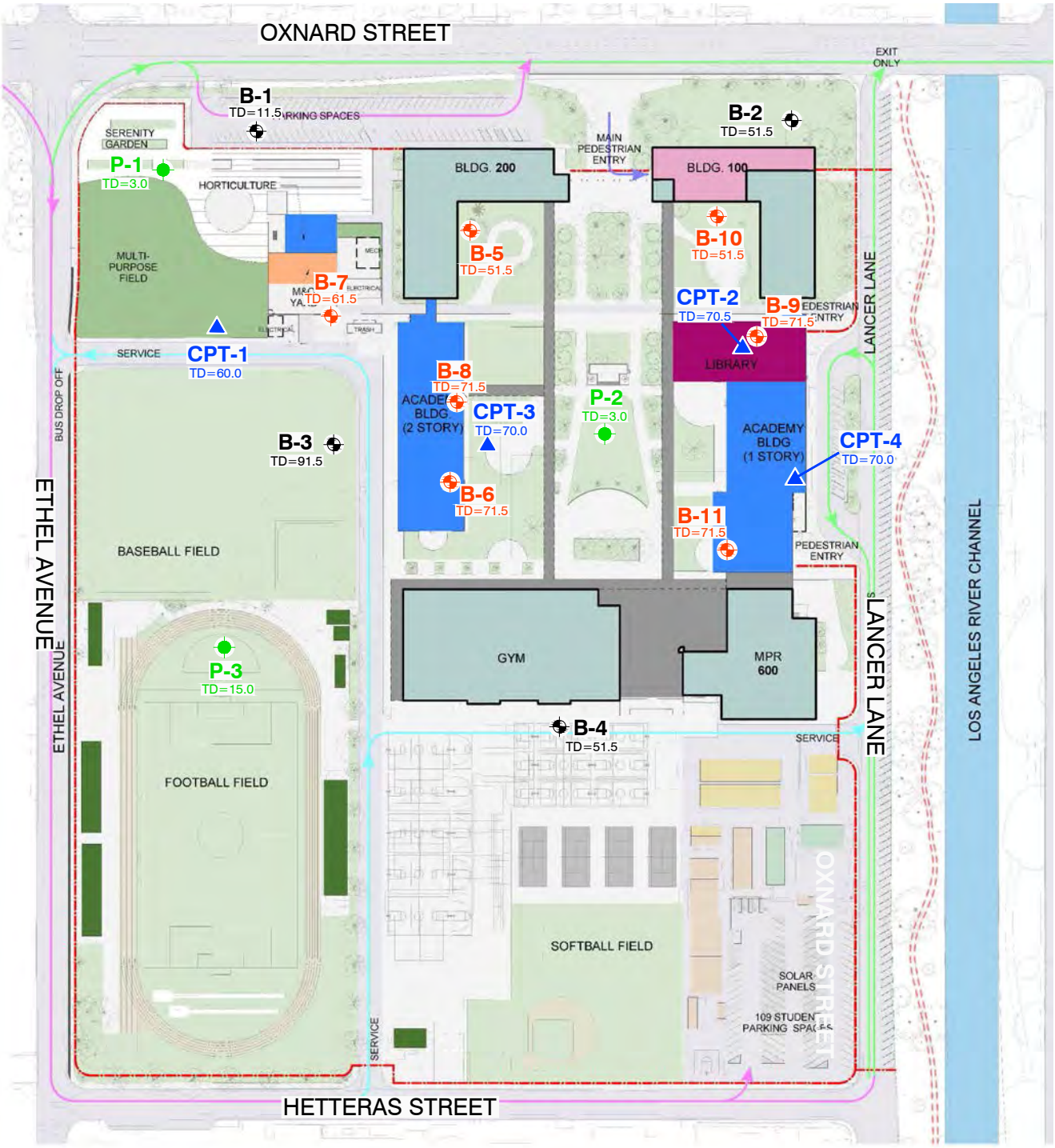
0 250 500

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: GOOGLE EARTH AERIAL PHOTO, 2016.

Ninyo & Moore		SITE AERIAL PHOTOGRAPH	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	2
209381009	5/17		

209381009_SAP.dwg 11:10:16 4/24/2017 GK



N

SCALE IN FEET

0 200 400

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

B-4 TD=51.5 — BORING; (JUNE 9,2015) TD=TOTAL DEPTH IN FEET	P-3 TD=15.0 — PERCOLATION TEST; TD=TOTAL DEPTH IN FEET
B-11 TD=71.5 — BORING; (SEPTEMBER 2016) TD=TOTAL DEPTH IN FEET	CPT-4 TD=71.5 — CONE PENETRATION TEST; TD=TOTAL DEPTH IN FEET

REFERENCE: IBI, ULYSSES S. GRANT HIGH SCHOOL SUMMARY REPORT, 2.2.3. BUILDING IDENTIFICATION DIAGRAM, UNDATED

Ninyo & Moore

SITE PLAN AND BORING LOCATIONS

PROJECT NO.	DATE
209381009	5/17

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
13000 OXNARD STREET
VAN NUYS, CALIFORNIA

FIGURE

3

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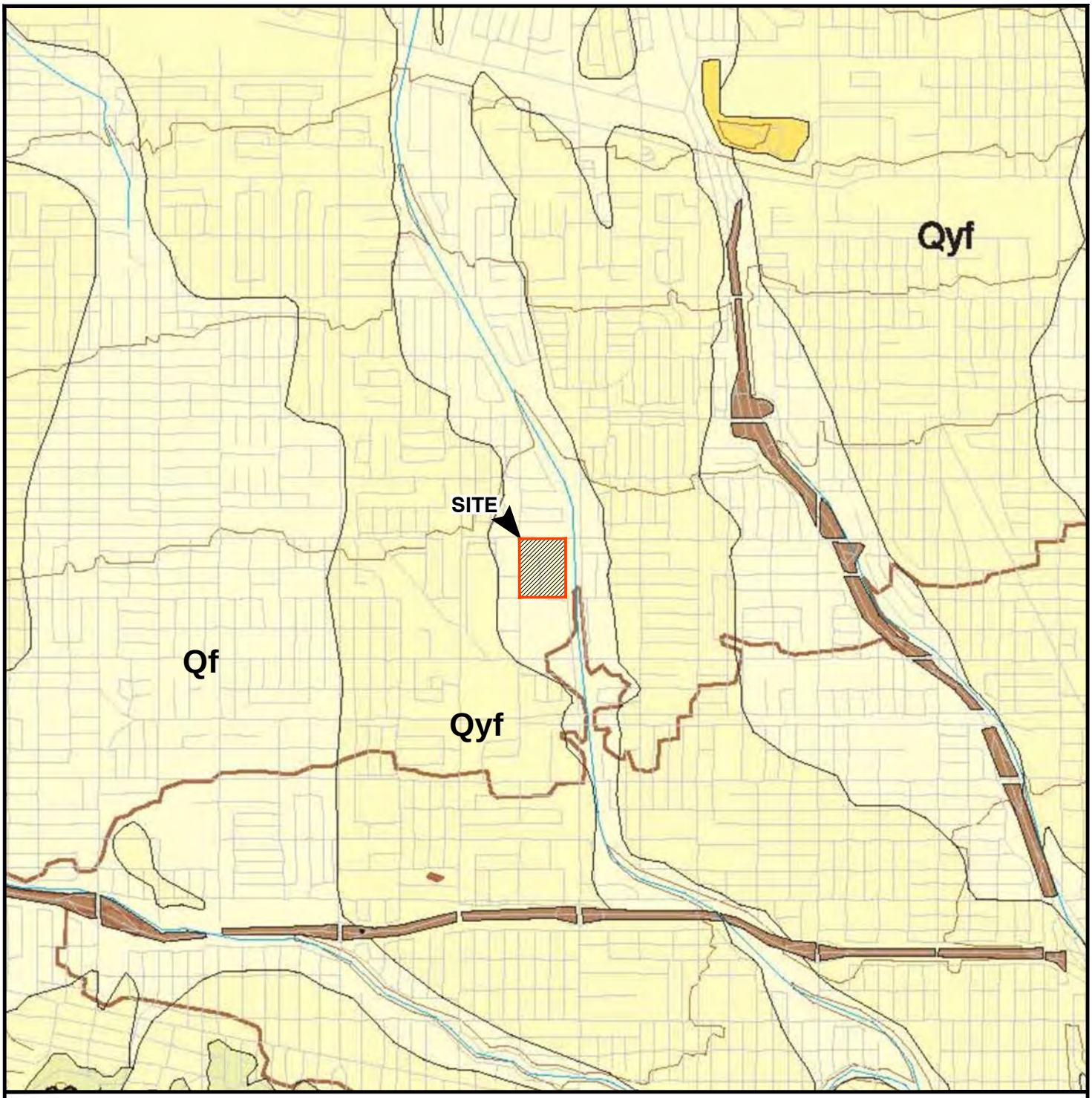


REFERENCE: ROBERT F. YERKES AND RUSSEL H. CAMPBELL 2005, PRELIMINARY GEOLOGIC MAP OF THE LOS ANGELES 30'X60' SOUTHERN QUADRANGLE, CALIFORNIA, VERSION 1.0.

N

SCALE IN FEET

0 3,000 6,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Qf	ALLUVIAL FAN DEPOSITS	Qaf	ARTIFICIAL FILL
Qyf	OLD ALLUVIAL FAN DEPOSITS		GEOLOGIC CONTACT

Ninyo & Moore

REGIONAL GEOLOGY

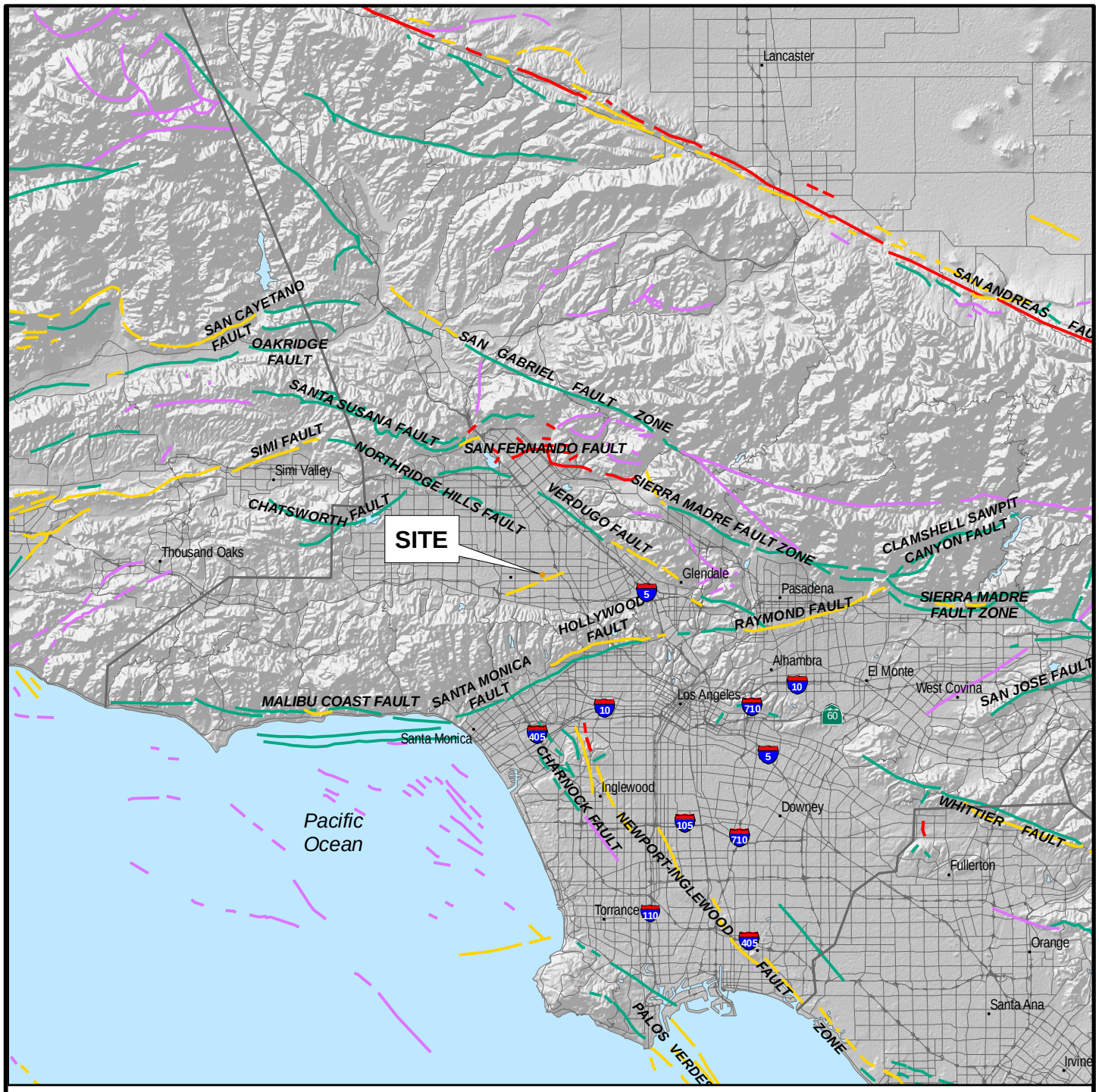
PROJECT NO.	DATE
209381009	5/17

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
13000 OXNARD STREET
VAN NUYS, CALIFORNIA

FIGURE

4

209381009_RG.dwg 10:48:24 04/24/2017 GK



GIS DATA SOURCE: CALIFORNIA GEOLOGICAL SURVEY (CGS); ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
REFERENCE: JENNINGS, 1994, FAULT ACTIVITY MAP OF CALIFORNIA AND ADJACENT AREAS

LEGEND

FAULT ACTIVITY:

- HISTORICALLY ACTIVE
- HOLOCENE ACTIVE
- COUNTY BOUNDARIES
- LATE QUATERNARY
- QUATERNARY

N

10 0 10
Miles

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE

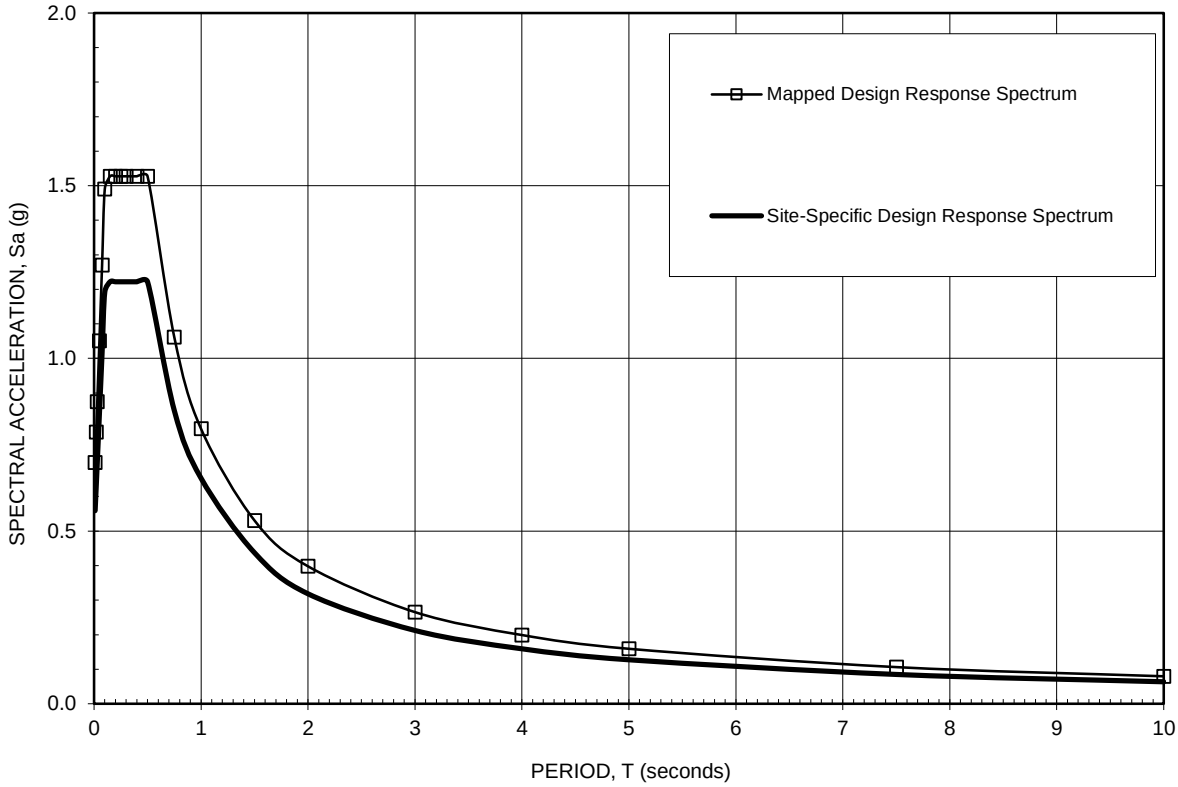
Ninyo & Moore		FAULT LOCATIONS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	5
209381009	5/17		

209381009_FL.gis...GK

PERIOD (seconds)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa, (g)
0.010	0.559
0.020	0.629
0.030	0.700
0.050	0.840
0.075	1.016
0.100	1.192
0.150	1.222
0.200	1.222
0.250	1.222
0.300	1.222
0.400	1.222

PERIOD (seconds)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa, (g)
0.500	1.222
0.750	0.849
1.000	0.653
1.500	0.437
2.000	0.318
3.000	0.212
4.000	0.159
5.000	0.127
7.500	0.085
10.000	0.064

S_{DS} = 1.222 S_{D1} = 0.653 PGA_M = 0.658



NOTES:

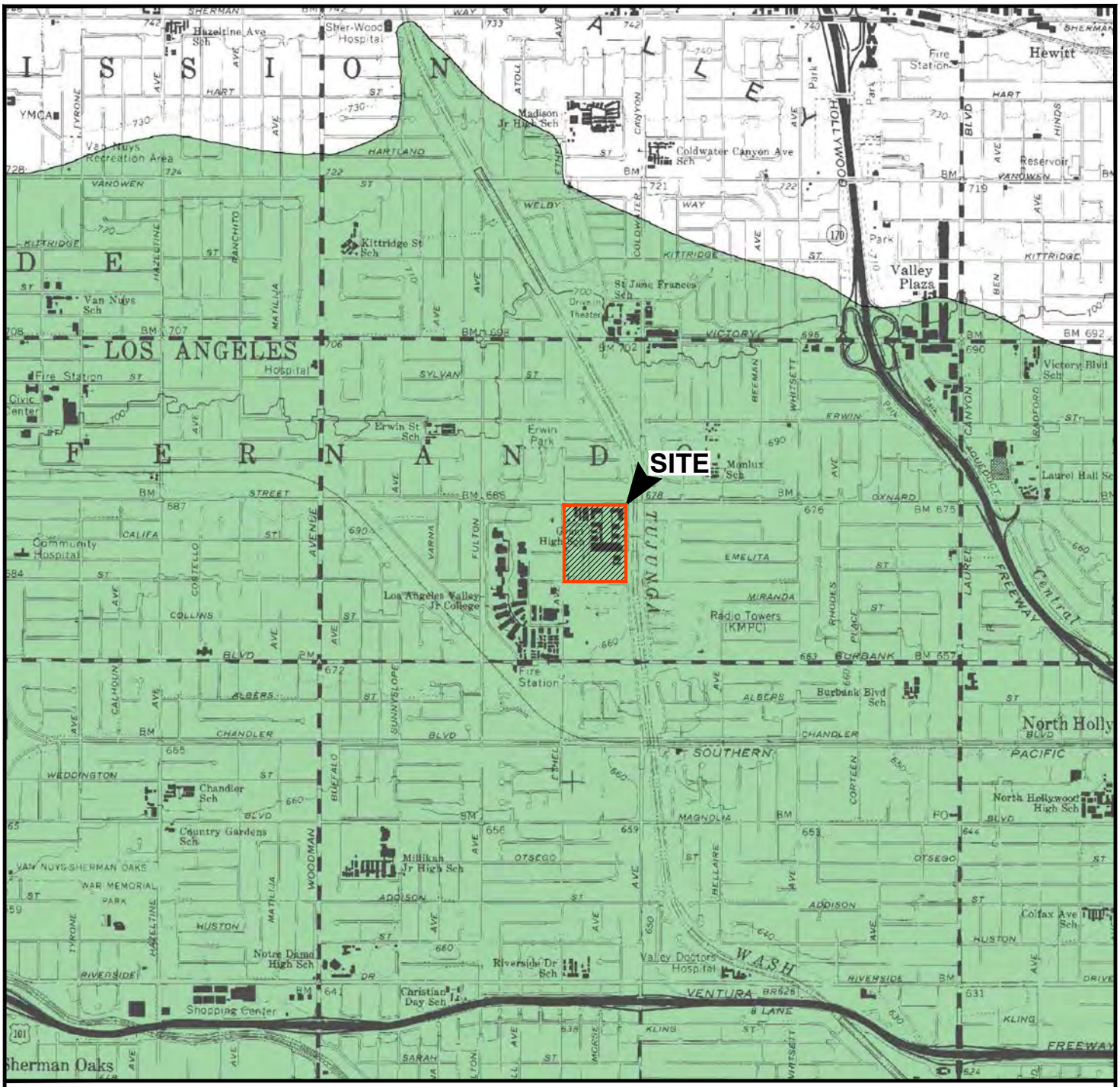
1 Probabilistic Ground Motion is for Risk-targeted Maximum Considered Earthquake (MCE_R) with ground motion having 2% probability of exceedance In 50 years using Chiou & Youngs (2008), Campbell & Bozorgnia (2008), and Boore & Atkinson (2008) attenuation relationships andthe risk coeff.

2 Deterministic ARS is 84th percentile of the median values from attenuation relationships by Chiou & Youngs (2008), Campbell & Bozorgnia (2008), and Boore & Atkinson (2008) for deep soils considering a Mw 6.8 event on the Verdugo-Eagle Rock fault located 7.1 kilometers from the site. It conforms with the lower bound limit per ASCE 7-10 Section 21.2.2 as modified by 2009 NEHRP Recommended Seismic Provisions.

3 Site-Specific MCE_R is the lesser of spectral ordinates of deterministic and probabilistic ARS at each period per ASCE 7-10 Section 21.2.3. Site-Specific Design Response Spectrum conforms with lower bound limit per ASCE 7-10 Section 21.3.

4 Mapped Design Response Spectrum is computed from mapped spectral ordinates modified for Site Class D (stiff soil profile) per ASCE 7-10 Section 11.4. It is presented for comparison.

Ninyo & Moore	ACCELERATION RESPONSE SPECTRA	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	6
209381009 / 5/17		



REFERENCE: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MAPS AND GEOLOGY, STATE OF CALIFORNIA, 1998, SEISMIC HAZARD ZONES MAP OFFICIAL REVISED MAP VAN NUYS QUADRANGLE, 7.5-MINUTE SERIES: SCALE 1:24,000.

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

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.

Ninyo & Moore

PROJECT NO.	DATE
209381009	5/17

SEISMIC HAZARD ZONES

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
13000 OXNARD STREET
VAN NUYS, CALIFORNIA

FIGURE

7

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APPENDIX A

BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Spoon

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test spoon sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of $1^3/_8$ inches. The spoon was driven into the ground 12 to 18 inches with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the spoon, bagged, sealed, and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using the following method.

The Modified Split-Barrel Drive Sampler

The sampler, with an external diameter of 3 inches, was lined with 1-inch-long, thin brass rings with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer of the drill rig in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer or bar, and the number of blows per foot of driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

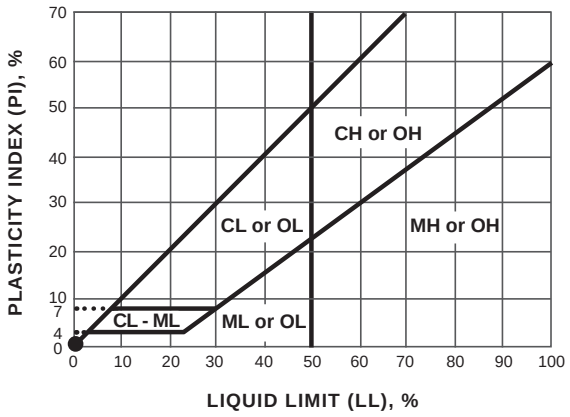
SOIL CLASSIFICATION CHART PER ASTM D 2488

PRIMARY DIVISIONS			SECONDARY DIVISIONS	
			GROUP SYMBOL	GROUP NAME
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	**GRAVEL** more than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVEL less than 5% fines	GW	well-graded GRAVEL
			GP	poorly graded GRAVEL
		GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines	GW-GM	well-graded GRAVEL with silt
			GP-GM	poorly graded GRAVEL with silt
			GW-GC	well-graded GRAVEL with clay
			GP-GC	poorly graded GRAVEL with clay
		GRAVEL with FINES more than 12% fines	GM	silty GRAVEL
			GC	clayey GRAVEL
			GC-GM	silty, clayey GRAVEL
	SAND 50% or more of coarse fraction passes No. 4 sieve	CLEAN SAND less than 5% fines	SW	well-graded SAND
			SP	poorly graded SAND
		SAND with DUAL CLASSIFICATIONS 5% to 12% fines	SW-SM	well-graded SAND with silt
			SP-SM	poorly graded SAND with silt
			SW-SC	well-graded SAND with clay
			SP-SC	poorly graded SAND with clay
		SAND with FINES more than 12% fines	SM	silty SAND
			SC	clayey SAND
			SC-SM	silty, clayey SAND
FINE-GRAINED SOILS 50% or more passes No. 200 sieve	**SILT and CLAY** liquid limit less than 50%	INORGANIC	CL	lean CLAY
			ML	SILT
			CL-ML	silty CLAY
		ORGANIC	OL (PI > 4)	organic CLAY
			OL (PI < 4)	organic SILT
	SILT and CLAY liquid limit 50% or more	INORGANIC	CH	fat CLAY
			MH	elastic SILT
		ORGANIC	OH (plots on or above "A"-line)	organic CLAY
			OH (plots below "A"-line)	organic SILT
	Highly Organic Soils		PT	Peat

GRAIN SIZE

DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders		> 12"	> 12"	Larger than basketball-sized
Cobbles		3 - 12"	3 - 12"	Fist-sized to basketball-sized
Gravel	Coarse	3/4 - 3"	3/4 - 3"	Thumb-sized to fist-sized
	Fine	#4 - 3/4"	0.19 - 0.75"	Pea-sized to thumb-sized
Sand	Coarse	#10 - #4	0.079 - 0.19"	Rock-salt-sized to pea-sized
	Medium	#40 - #10	0.017 - 0.079"	Sugar-sized to rock-salt-sized
	Fine	#200 - #40	0.0029 - 0.017"	Flour-sized to sugar-sized
Fines		Passing #200	< 0.0029"	Flour-sized and smaller

PLASTICITY CHART



APPARENT DENSITY - COARSE-GRAINED SOIL

APPARENT DENSITY	SPOOLING CABLE OR CATHEAD		AUTOMATIC TRIP HAMMER	
	SPT (blows/foot)	MODIFIED SPLIT BARREL (blows/foot)	SPT (blows/foot)	MODIFIED SPLIT BARREL (blows/foot)
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5
Loose	5 - 10	9 - 21	4 - 7	6 - 14
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42
Dense	31 - 50	64 - 105	21 - 33	43 - 70
Very Dense	> 50	> 105	> 33	> 70

CONSISTENCY - FINE-GRAINED SOIL

CONSIS-TENCY	SPOOLING CABLE OR CATHEAD		AUTOMATIC TRIP HAMMER	
	SPT (blows/foot)	MODIFIED SPLIT BARREL (blows/foot)	SPT (blows/foot)	MODIFIED SPLIT BARREL (blows/foot)
Very Soft	< 2	< 3	< 1	< 2
Soft	2 - 4	3 - 5	1 - 3	2 - 3
Firm	5 - 8	6 - 10	4 - 5	4 - 6
Stiff	9 - 15	11 - 20	6 - 10	7 - 13
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26
Hard	> 30	> 39	> 20	> 26

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USCS METHOD OF SOIL CLASSIFICATION

Explanation of USCS Method of Soil Classification

PROJECT NO.	DATE	FIGURE

BORING LOG EXPLANATION SHEET

DEPTH (feet)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	
0	■							Bulk sample.
		■						Modified split-barrel drive sampler.
		☒						No recovery with modified split-barrel drive sampler.
		▬						Sample retained by others.
		◤						Standard Penetration Test (SPT).
5		⁄						No recovery with a SPT.
		▯	XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
		⁄						No recovery with Shelby tube sampler.
		▤						Continuous Push Sample.
				♀				Seepage.
10				▽				Groundwater encountered during drilling.
				▼				Groundwater measured after drilling.
						▦	SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.
						▨	CL	Dashed line denotes material change.
15								Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface
20								The total depth line is a solid line that is drawn at the bottom of the boring.

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BORING LOG

Explanation of Boring Log Symbols

PROJECT NO.	DATE	FIGURE
	Rev. 11/11	

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 2.5 inches thick.
							SC	AGGREGATE BASE: Dark brown, moist, medium dense, silty SAND with gravel; approximately 4.5 inches thick.
							SM	FILL: Brown, moist, medium dense, clayey SAND; few gravel; trace asphalt.
			16				SP-SM	ALLUVIUM: Brown, moist, medium dense, silty SAND; trace gravel. Light brown, moist, medium dense, poorly graded SAND with silt.
							SM	Reddish brown, moist, medium dense, silty SAND; pinhole porosity; caliche stringers.
10			8					
20								
30								
40								

DATE DRILLED 6/9/15 BORING NO. B-1

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

Total Depth = 11.5 feet.
Groundwater was not encountered during drilling.
Backfilled with on-site soil and capped with rapid-set concrete on 6/9/15.

Note:
Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.

The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-1

DATE DRILLED 6/9/15 BORING NO. B-2

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							ML	FILL:
							SP-SM	Brown, moist, medium dense, sandy SILT with organics; approximately 3 inches thick.
								ALLUVIUM: Light brown, moist, loose, poorly graded SAND with silt; trace gravel; trace organics.
			4					Dry; few gravel.
10			35					Medium dense; few to little gravel.
							ML	Reddish brown, moist, loose, sandy SILT; trace organics.
			10					
20			17	12.9	102.2			Medium dense; caliche stringers.
								@ 24': Gravel encountered.
			10					Trace gravel.
30			42	19.0	110.3			Oxidation staining.
			18					
40								

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-2

DATE DRILLED 6/9/15 BORING NO. B-2

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	37	15.7	111.9		ML	ALLUVIUM: (Continued) Reddish gray, moist, medium dense, sandy SILT; oxidation staining; pinhole porosity.
		◥	20					Trace gravel.
50		■	55					Dense.
								Total Depth = 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 6/9/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-3

DATE DRILLED 6/9/15 BORING NO. B-3

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■	■					SM	ALLUVIUM: Dark brown, moist, medium dense, silty SAND.
		■	17	5.8	101.0		SP-SM	Yellowish brown, moist, medium dense, poorly graded SAND with silt.
								Gravel.
10		◥	26					Trace gravel; dense.
		■	14	21.6	98.3		ML	Brown, moist, very stiff, clayey SILT.
20		◥	19					Dark brown, medium dense, sandy SILT; oxidation staining.
		■	17	19.5	107.5			Increase in moisture content; pinhole porosity.
30		◥	15				SM	Brown, moist, medium dense, silty SAND.
		◥	30				SW-SM	Yellowish brown, moist, dense, poorly graded SAND with silt; few to little gravel.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-4

DATE DRILLED 6/9/15 BORING NO. B-3

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◥	24				ML	ALLUVIUM: (Continued) Dark brown, moist, hard, clayey SILT; oxidation staining.
		◥	19				SM	Mottled brown and yellowish brown, moist, medium dense, silty SAND.
50		◥	31				SM	Yellowish brown, moist, dense, silty SAND; few gravel.
		◥	42				SP-SM	Yellowish brown, moist, very dense, poorly graded SAND with silt; trace gravel.
60		◥	49				SM	Yellowish brown, moist, very dense, silty SAND; trace gravel.
		◥	61				SP	Yellowish brown, moist, very dense, poorly graded SAND; few gravel.
70		◥	24					No gravel observed.
							ML	Dark brown, moist, dense, sandy SILT; oxidation staining.
80								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-5

DATE DRILLED 6/9/15 BORING NO. B-3

GROUND ELEVATION 675' ± (MSL) SHEET 3 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
80		◪	48				SP	ALLUVIUM: (Continued) Brown, moist, very dense, poorly graded SAND; trace gravel.
		◪	39				SM	Yellowish brown, moist, very dense, silty SAND.
90		◪	36	▽			ML	Dark brown, moist to wet, very dense, silty SAND. @ 91': Groundwater encountered during drilling; wet.
100								Total Depth = 91.5 feet. Groundwater was encountered at approximately 91 feet during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/9/15. Note: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
110								
120								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-6

DATE DRILLED 6/9/15 BORING NO. B-4

GROUND ELEVATION 670' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 3.5 inches thick.
							SP-SM	AGGREGATE BASE: Reddish brown, moist, medium dense, silty SAND with gravel; trace asphalt; approximately 6.5 inches thick.
							SP-SM	FILL: Brown, moist, medium dense, poorly graded SAND with silt; trace gravel.
			12					ALLUVIUM: Light brown, moist, medium dense, poorly graded SAND with silt; trace gravel.
10			41	3.4	115.2			Few gravel.
			8				CL	Reddish brown, moist, stiff, sandy CLAY; oxidation staining.
20			29				SC	Reddish brown, moist, medium dense, clayey SAND; trace gravel; oxidation staining.
			14				CL	Reddish brown, moist, very stiff, sandy CLAY; oxidation staining.
30			28	2.8	123.9		SM	Reddish yellow, moist, medium dense, silty SAND; oxidation staining; pinhole porosity.
								@ 32': Gravel layer.
			24					Dense; oxidation staining.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-7

DATE DRILLED 6/9/15 BORING NO. B-4

GROUND ELEVATION 670' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	38	17.5	111.1		SM	ALLUVIUM: (Continued) Reddish gray, moist, medium dense, silty SAND; oxidation staining; pinhole porosity.
		◥	20					
							SP-SM	Reddish yellow, moist, dense, poorly graded SAND with silt.
50		■	57				SM	Reddish brown, moist, dense, silty SAND; trace gravel; oxidation staining.
								Total Depth = 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/9/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-8

DATE DRILLED 9/28/16 BORING NO. B-5

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■						CL	FILL: Brown, moist, medium dense, sandy CLAY; interbedded sand; trace debris (brick).
		◢	6				SM	ALLUVIUM: Yellowish brown, moist, loose, silty SAND.
							SP	Yellowish brown, moist, dense, poorly graded SAND.
10		■	52	2.8	116.7			Trace gravel.
		◢	10				ML	Brown, moist, stiff, clayey SILT.
20		■	12	15.3	109.2			Increase in sand.
		◢	9				CL	Pale brown, moist, stiff, silty CLAY.
30		◢	14					Very stiff; oxidation staining.
							SM	Brown, moist, dense, silty SAND.
		◢	25				SP-SM	Yellowish brown, moist, dense, poorly graded SAND with silt.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-9

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	26				SP	ALLUVIUM: (Continued) Yellowish brown, moist, dense, poorly graded SAND; trace gravel.
							ML	Brown, moist, hard, clayey SILT.
							SM	Brown, moist, dense, silty SAND.
		■	30					
							SP	Brownish yellow, moist, very dense, poorly graded SAND; trace gravel.
50		■	47					
								Total Depth = 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 9/28/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

DATE DRILLED 9/28/16 BORING NO. B-5

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-10

DATE DRILLED 9/29/16 BORING NO. B-6

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GM	ASPHALT CONCRETE: Approximately 3 inches thick.
							SM	BASE: Brown, moist, medium dense, silty GRAVEL; approximately 10 inches thick.
								ALLUVIUM: Brown, moist, medium dense, silty SAND.
			9				SP	Yellowish brown, moist, medium dense, poorly graded SAND; fine grained.
10			34					Trace gravel.
							ML	Dark brown, moist, stiff, clayey SILT.
			7					
20			18	12.4	122.2			Very stiff; pinhole porosity; trace oxidation staining.
			12					
							SP	Brownish yellow, moist, very dense, poorly graded SAND; trace gravel.
30			49					
			68					
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-11

DATE DRILLED 9/29/16 BORING NO. B-6

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◥	18				CL	ALLUVIUM: (Continued) Pale brown, moist, very stiff, silty CLAY.
		◥	19					Slight oxidation staining.
							ML	Brown, moist, hard, clayey SILT; interbedded sand.
50		◥	26					
		◥	22				SP	Brownish yellow, moist, dense, poorly graded SAND: oxidation staining.
							ML	Pale brown, moist, hard, clayey SILT; oxidation staining.
60		◥	40				SM	Light brown, moist, very dense, silty SAND; fine sand.
		◥	52				SP-SM	Yellow, moist, very dense, poorly graded SAND with silt.
70		◥	36				SM	Brown, moist, very dense, silty SAND.
80								Total Depth = 71.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 9/29/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-12

DATE DRILLED 9/28/16 BORING NO. B-7

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	PORTLAND CEMENT CONCRETE: Approximately 3 inches thick.
								FILL: Brown, moist, medium dense, silty SAND; few gravel.
			40				SP	ALLUVIUM: Brownish yellow, moist, medium dense, poorly graded SAND; few gravel.
10			5				ML	Brown, moist, firm, clayey SILT.
			17	6.7	108.1			Very stiff; trace pinhole porosity.
20			8					Stiff.
			30					Mottled pale brown and brown; hard; increase in sand.
30			31					Trace gravel.
							SP	Yellowish brown, moist, dense, poorly graded SAND; trace gravel.
			19				SM	Few gravel. Brown, moist, medium dense, silty SAND.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-13

DATE DRILLED 9/28/16 BORING NO. B-7

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	26				CL	ALLUVIUM: (Continued) Brown, moist, hard, sandy CLAY.
		■	23					Increase in sand.
50		■	52				SM	Brownish yellow, moist, very dense, silty SAND; coarse sand.
		■	54				SP	Yellowish brown, moist, very dense, poorly graded SAND.
60		■	36				SM	Yellowish brown, moist, very dense, silty SAND; fine sand.
70								Total Depth = 61.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 9/28/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-14

DATE DRILLED 9/28/16 BORING NO. B-8

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GM	ASPHALT CONCRETE: Approximately 3½ inches thick.
							SP	AGGREGATE BASE: Gray, moist, medium dense; approximately 5 inches thick.
							SM	FILL: Yellowish brown, moist, medium dense, poorly graded SAND; fine sand; trace gravel.
			20				SP	ALLUVIUM: Brown, moist, medium dense, silty SAND. Yellowish brown, moist, medium dense, poorly graded SAND.
10			22					
							ML	Brown, moist, hard, clayey SILT.
			13	14.1	105.5			Stiff; trace pinhole porosity.
20			20					Very stiff; no pinhole porosity observed; trace gravel.
							CL	Brown, moist, very stiff, silty CLAY; oxidation staining.
			11					Trace gravel.
30			39				SP	Brown, moist, very dense, poorly graded SAND.
			58				SM	Yellowish brown, moist, very dense, silty SAND; coarse sand; few gravel.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-15

DATE DRILLED 9/28/16 BORING NO. B-8

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	21				SP	ALLUVIUM: (Continued) Brownish yellow, moist, dense, poorly graded SAND; trace silt.
							CL	Brown, moist, hard, silty CLAY.
		■	23				ML	Dark brown, moist, hard, clayey SILT.
50		■	13					
							CL	Pale brown, moist, hard, silty CLAY; oxidation staining.
		■	37				SM	Brown, moist, dense, silty SAND.
							ML	Pale brown, moist, hard, sandy SILT; oxidation staining.
60		■	24					
		■	45				SP	Light yellowish brown, moist, very dense, poorly graded SAND; fine sand. Trace gravel.
70		■	40				SM	Pale brown, moist, very dense, silty SAND; fine sand.
80								Total Depth = 71.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 9/28/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-16

DATE DRILLED 9/27/16 BORING NO. B-9

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■						SP	ALLUVIUM: Yellowish brown, moist, medium dense, poorly graded SAND; cobble; trace gravel.
							SM	Brown, moist, medium dense, silty SAND.
		◥	13				SP	Yellowish brown, moist, medium dense, poorly graded SAND.
10		■	19				CL	Brown, moist, very stiff, sandy CLAY.
		◥	8				ML	Brown, moist, stiff, sandy SILT.
20		■	22					Very stiff; increase in sand and sandy clay; oxidation staining; trace gravel.
							SM	Brown, moist, medium dense, silty SAND; trace gravel; trace oxidation staining.
		◥	14					
							CL	Mottled pale brown and brown, moist, very stiff, silty CLAY; oxidation staining.
30		◥	19					
		◥	24				ML	Pale brown, moist, hard, sandy SILT.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-17

DATE DRILLED 9/27/16 BORING NO. B-9

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◥	22				CH	ALLUVIUM: (Continued) Brown, moist, hard, fat CLAY; oxidation staining.
		◥	50					Increase in sand.
50		◥	75				SM	Yellowish brown, moist, very dense, silty SAND; coarse sand.
		◥	64				SP	Brownish yellow, moist, very dense, poorly graded SAND; trace gravel.
60		◥	55					
		◥	47					No gravel observed.
70		◥	53					
								Total Depth = 71.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 9/27/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-18

DATE DRILLED 9/29/16 BORING NO. B-10

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							CL	FILL: Dark brown, moist, medium dense, sandy CLAY; trace gravel; trace debris (brick).
	■						SM	ALLUVIUM: Yellowish brown, moist, medium dense, silty SAND.
	■	■	12	4.8	101.9			
							SP	Brownish yellow, moist, medium dense, poorly graded SAND; fine sand; trace gravel.
10		◥	19					
							ML	Brown, moist, very stiff, clayey SILT; trace pinhole porosity.
		■	17	13.8	106.4			
20		◥	10					Stiff; increase in sand.
		◥	14					Sandy; very stiff; trace gravel.
							CL	Mottled dark brown and brown, moist, very stiff, sandy CLAY.
30		◥	15					
		◥	20				ML	Dark brown, moist, very stiff, sandy SILT.
40								

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-19

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◥	29				SM	ALLUVIUM: (Continued) Brown, moist, dense, silty SAND.
		◥	18				ML	Dark brown, moist, very stiff, clayey SILT; trace oxidation staining.
50		◥	23					Hard.
								Total Depth - 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 9/29/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

DATE DRILLED 9/29/16 BORING NO. B-10

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-20

DATE DRILLED 9/27/16 BORING NO. B-11

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■						SM	ALLUVIUM: Brown, moist, medium dense, silty SAND.
		■	27				SP	Yellowish brown, moist, medium dense, poorly graded SAND; trace gravel.
10		◢	16					Increase in silt; trace cobble.
		■	13	14.6	115.2		ML	Brown, moist, loose, sandy SILT; trace pinhole porosity.
20		◢	7				CL	Brown, moist, stiff, CLAY; increase in moisture; oxidation staining.
		◢	13					Very stiff; increase in fine sand.
30		◢	15					Mottled pale brown and brown; oxidation staining.
		◢	18				SM	Brown, moist, medium dense, silty SAND; oxidation staining; interbedded clay.
40								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-21

DATE DRILLED 9/27/16 BORING NO. B-11

GROUND ELEVATION 675' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◥	18				CL	ALLUVIUM: (Continued) Brown, moist, very stiff, silty CLAY; oxidation staining.
		◥	24					Hard; increase in sand.
50		◥	24					Pale brown; hard; sandy. Oxidation staining.
		◥	36				SM	Mottled yellowish brown and brown, moist, very dense, silty SAND.
60		◥	43					Yellowish brown.
		◥	44				SP	Brownish yellow, moist, very dense, poorly graded SAND.
70		◥	55					
								Total Depth = 71.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 9/27/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
80								

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BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-22

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ALLUVIUM: Light gray brown, dry, loose, silty SAND; fine grained; micaceous; trace gravel.
								Total Depth = 3.0 feet. Groundwater was not encountered during excavation. Backfilled with on-site soil on 9/28/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
10								
20								
30								
40								

DATE DRILLED 9/28/16 BORING NO. P-1

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING 8" Hand Auger

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SMR LOGGED BY SMR REVIEWED BY RDH

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-23

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ALLUVIUM: Brown, dry, medium dense, silty SAND.
								Total Depth = 3.0 feet. Groundwater was not encountered during excavation. Backfilled with on-site soil on 9/28/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
10								
20								
30								
40								

DATE DRILLED 9/28/16 BORING NO. P-2

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING 8" Hand Auger

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SMR LOGGED BY SMR REVIEWED BY RDH

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-24

DATE DRILLED 9/29/16 BORING NO. P-3

GROUND ELEVATION 675' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING 8" Hollow-Stem Auger (2R Drilling)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0	■						SM	ALLUVIUM: Brown, moist, medium dense, silty SAND. Trace gravel.
		■	20				SP	Yellowish brown, moist, medium dense, poorly graded SAND; trace gravel.
10		■	20				SM	Brown, moist, medium dense, silty SAND.
		■	16				CL	Dark brown, moist, very stiff, silty CLAY.
20								Total Depth = 15 feet. Groundwater was not encountered during drilling. Temporary well installed on 9/29/16 and removed on 9/30/16. Backfilled with on-site soil on 9/30/16. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
30								
40								

Ninyo & Moore

BORING LOG

ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION
VAN NUYS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381009	5/17	A-25

APPENDIX B

LABORATORY TESTING

In-Place Moisture and Density Tests

The moisture content and dry density of relatively undisturbed samples obtained from the exploratory excavations were evaluated in general accordance with ASTM D 2937. The test results are presented on the logs of the exploratory excavations in Appendix A.

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory excavations in Appendix A.

200 Wash

An evaluation of the percentage of particles finer than the No. 200 sieve in selected soil samples was performed in general accordance with ASTM D 1140. The results of the tests are presented on Figures B-1 through B-3. These test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Gradation Analysis

Gradation analysis testing was performed on selected representative soil samples in general accordance with ASTM D 422. The grain-size distribution curves are shown on Figures B-4 through B-9. The test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Atterberg Limits

Testing was performed on a selected representative fine-grained soil sample to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. The test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System (USCS). The test results and classifications are shown on Figure B-10.

Expansion Index Tests

The expansion index of a selected materials were evaluated in general accordance with Uniform Building Code (UBC) Standard No. 18-2 (ASTM D 4829). A specimen was molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimen was loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The results of this test are presented on Figure B-11.

Direct Shear Tests

Direct shear tests were performed on undisturbed samples in general accordance with ASTM D 3080 to evaluate the shear strength characteristics of selected materials. The samples were

inundated during shearing to represent adverse field conditions. The results are shown on Figures B-12 through B-15.

Consolidation Tests

A consolidation test was performed on selected relatively undisturbed soil samples in general accordance with ASTM D 2435. The samples were inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the samples. The results of the tests are summarized on Figures B-16 through B-18.

Hydro-Collapse Potential Tests

A collapse potential test was performed on selected relatively undisturbed soil samples in general accordance with ASTM D 5333. The samples were inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the samples. The results of the test are summarized on Figures B-19 through B-21.

R-Value

The resistance value, or R-value, for site soils was evaluated in general accordance with California Test (CT) 301. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results. The test results are shown on Figure B-22.

Soil Corrosivity Tests

Soil pH, and resistivity tests were performed on a representative sample in general accordance with CT 643. The soluble sulfate and chloride content of the selected sample was evaluated in general accordance with CT 417 and CT 422, respectively. The test results are presented on Figure B-23.

SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-2	10.0-11.5	POORLY GRADED SAND WITH SILT	90	5	SP-SM
B-2	25.0-26.5	SANDY SILT	100	68	ML
B-2	30.0-31.5	SANDY SILT	100	77	ML
B-2	45.0-46.5	SANDY SILT	100	60	ML
B-3	10.0-11.5	POORLY GRADED SAND WITH SILT	92	6	SP-SM
B-3	20.0-21.5	SANDY SILT	99	65	ML
B-3	30.0-31.5	SILTY SAND	99	44	SM
B-3	40.0-41.5	SANDY SILT	100	68	ML
B-3	45.0-46.5	SILTY SAND	100	49	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

Ninyo & Moore		NO. 200 SIEVE ANALYSIS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-1
209381009	5/17		

SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-4	35.0-36.5	SILTY SAND	100	34	SM
B-4	45.0-46.5	SILTY SAND	100	48	SM
B-5	20.0-21.5	SANDY SILT	99	63	ML
B-7	10.0-11.5	SANDY SILT	100	59	ML
B-7	25.0-26.5	SANDY SILT	100	56	ML
B-7	40.0-41.5	SANDY CLAY	98	63	CL
B-9	15.0-16.5	SANDY SILT	99	60	ML
B-9	35.0-36.5	SANDY SILT	100	63	ML
B-10	30.0-31.5	SANDY CLAY	100	67	CL

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

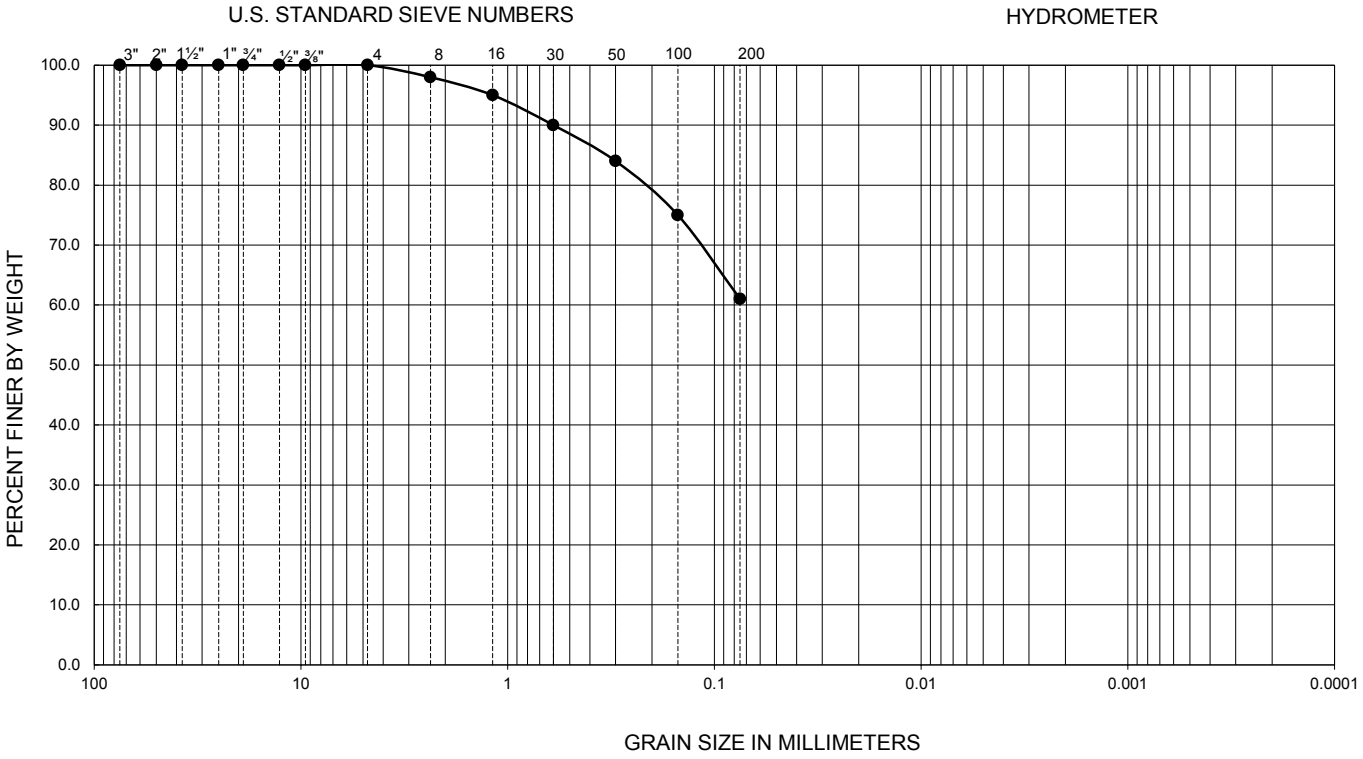
Ninyo & Moore		NO. 200 SIEVE ANALYSIS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-2
209381009	5/17		

SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-11	25.0-26.5	SANDY CLAY	99	61	CL

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

Ninyo & Moore		NO. 200 SIEVE ANALYSIS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-3
209381009	5/17		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



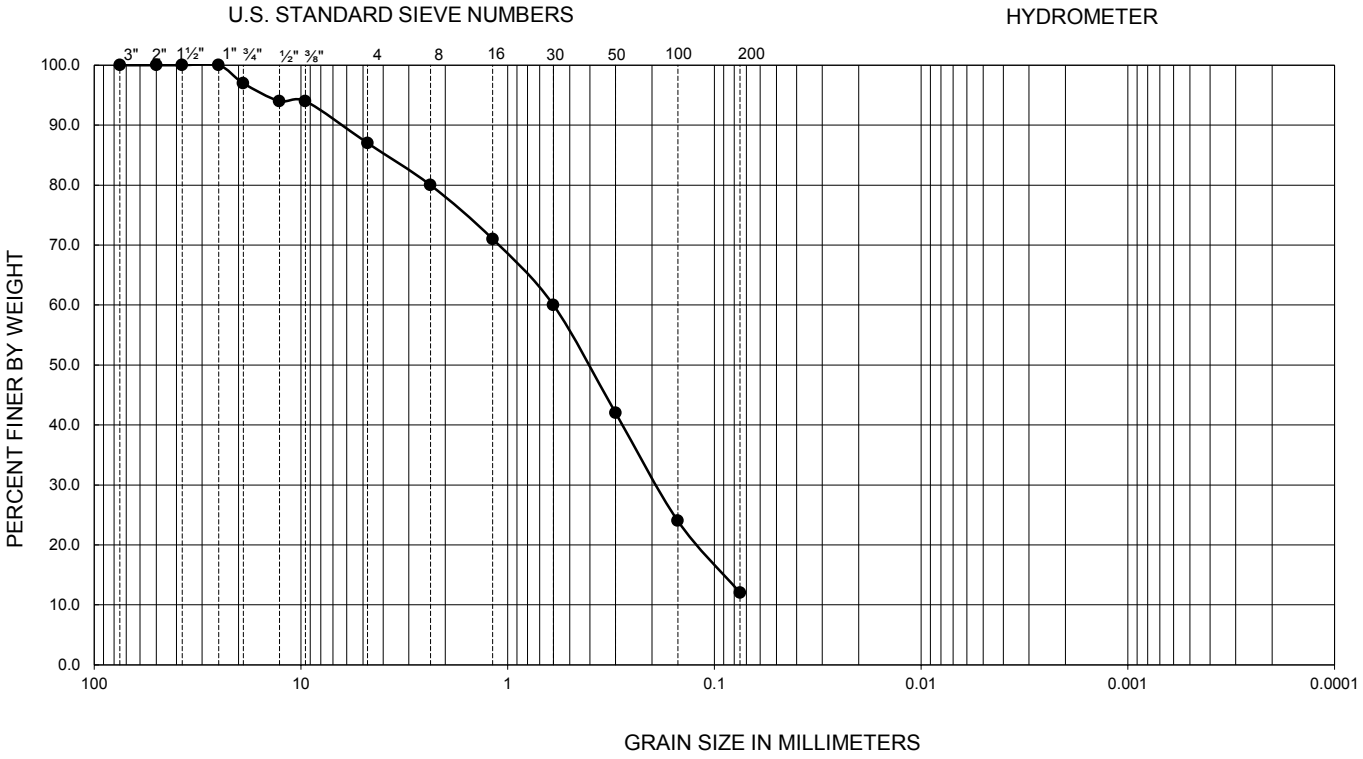
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-2	35.0-36.5	--	--	--	--	--	--	--	--	61	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-4
209381009 / 5/17		

209381009 B-04_SIEVE w No 8 B-2 35.0-36.5

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

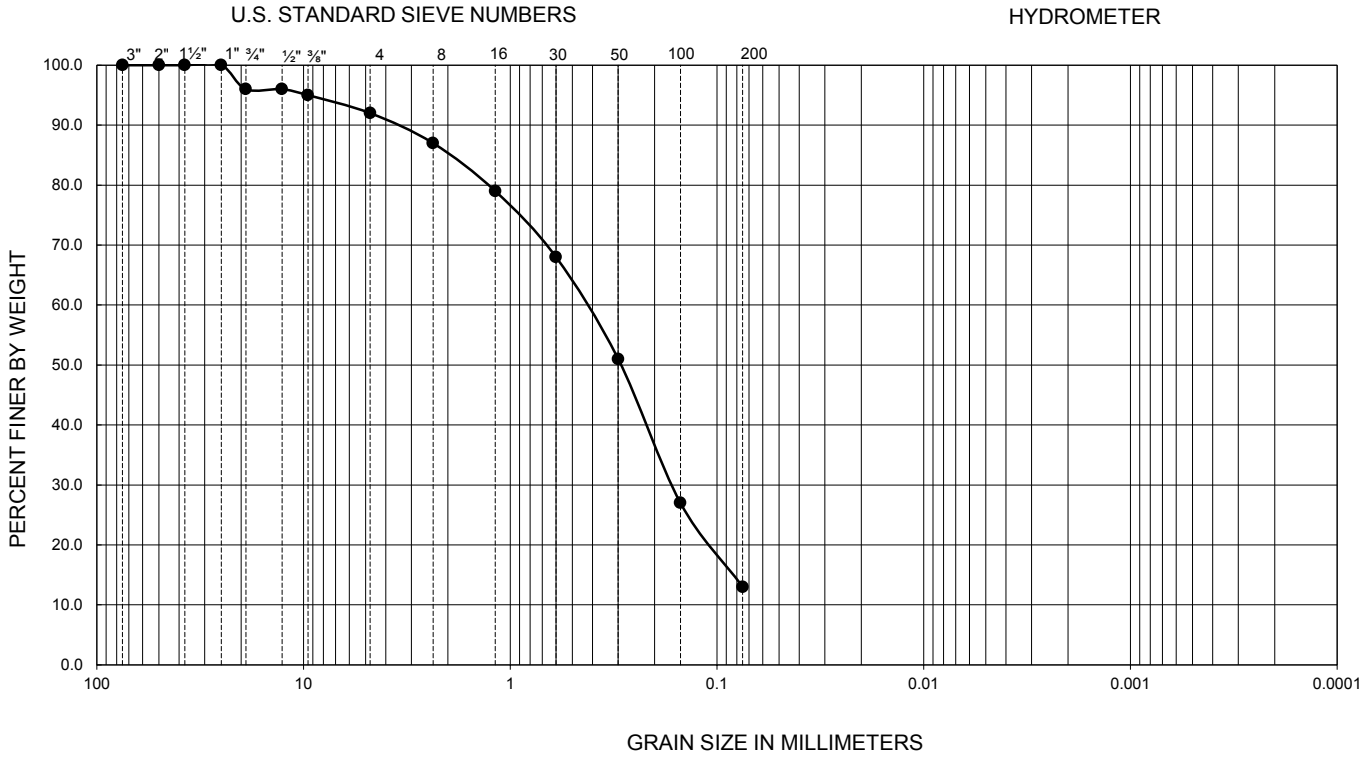


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	35.0-36.5	--	--	--	0.06	0.19	0.60	10.0	1.0	12	SW-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-5
209381009 / 5/17		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



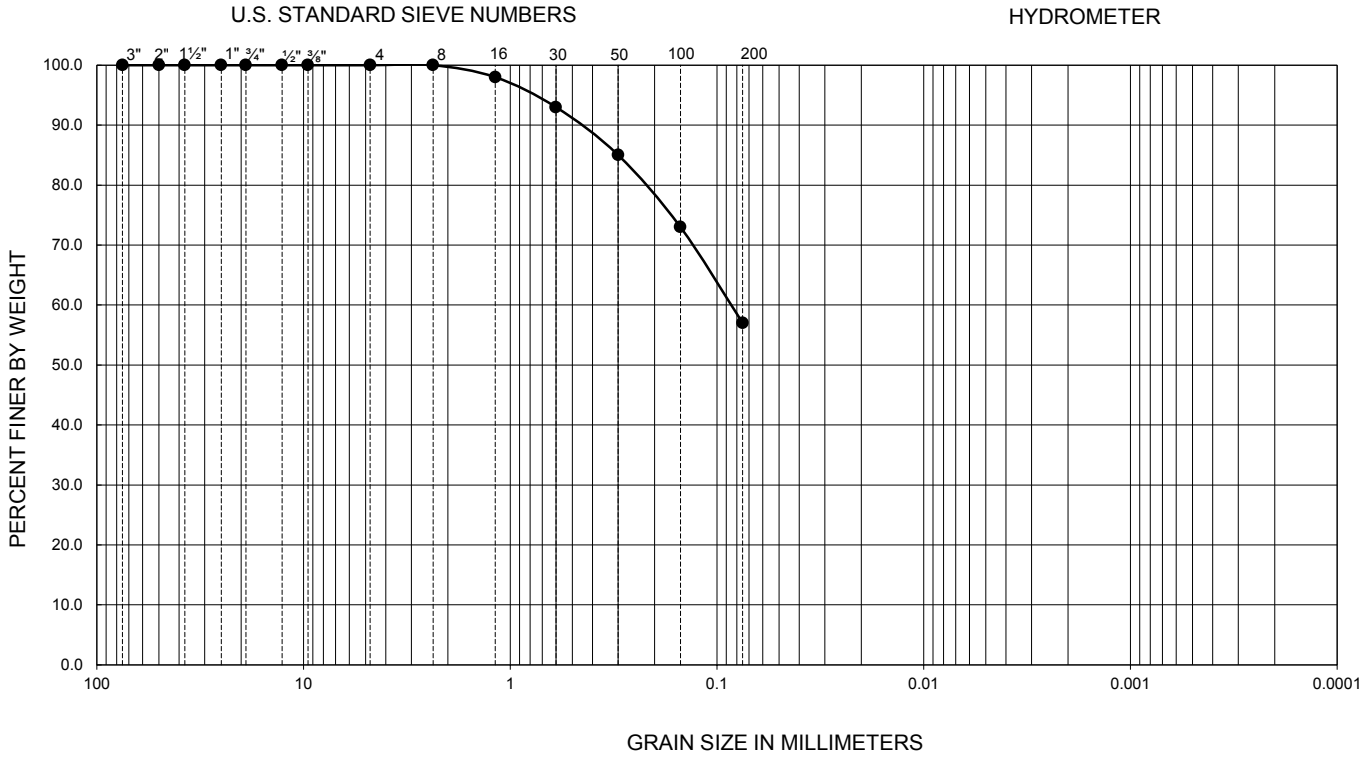
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	50.0-51.5	--	--	--	--	--	--	--	--	13	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-6
209381009 / 5/17		

209381009 B-06_SIEVE w No 8 B-3 50.0-51.5

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

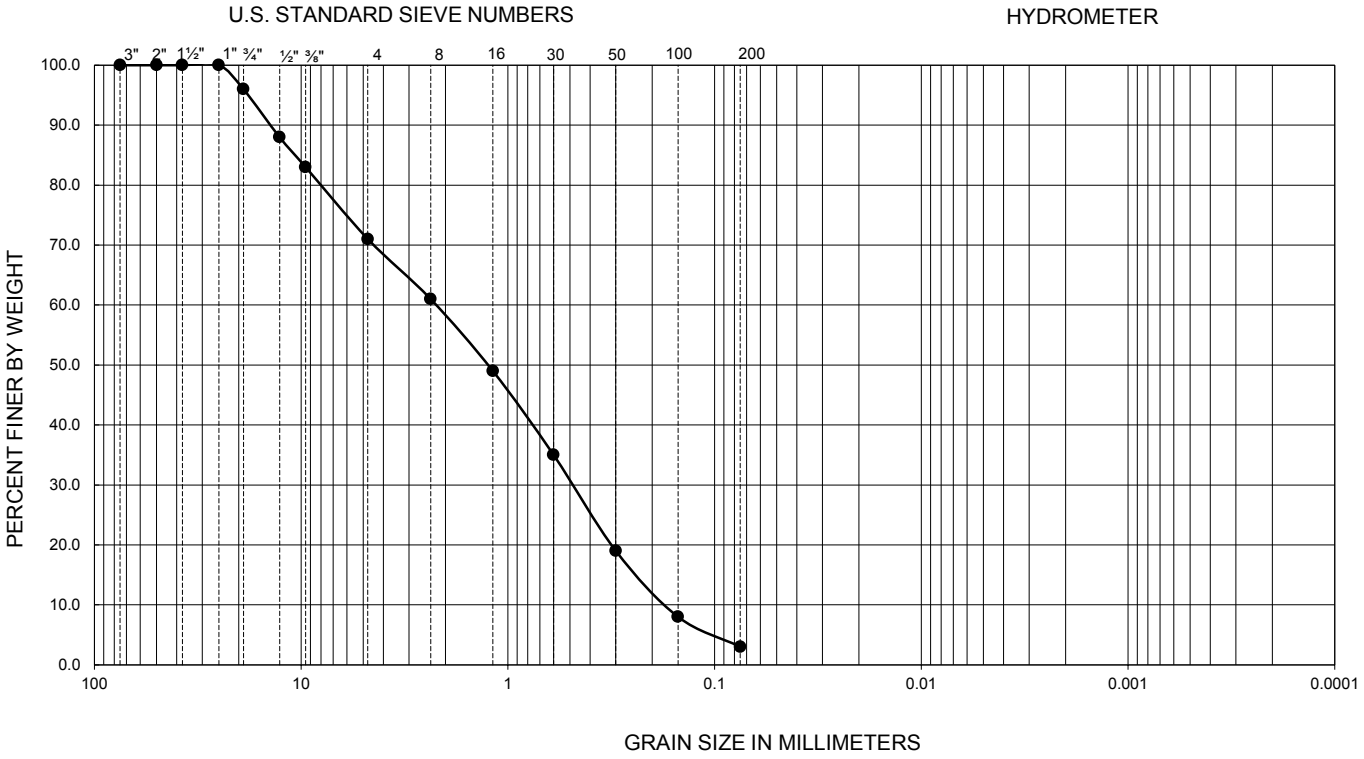


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-4	15.0-16.5	--	--	--	--	--	--	--	--	57	CL

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-7
209381009 / 5/17		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



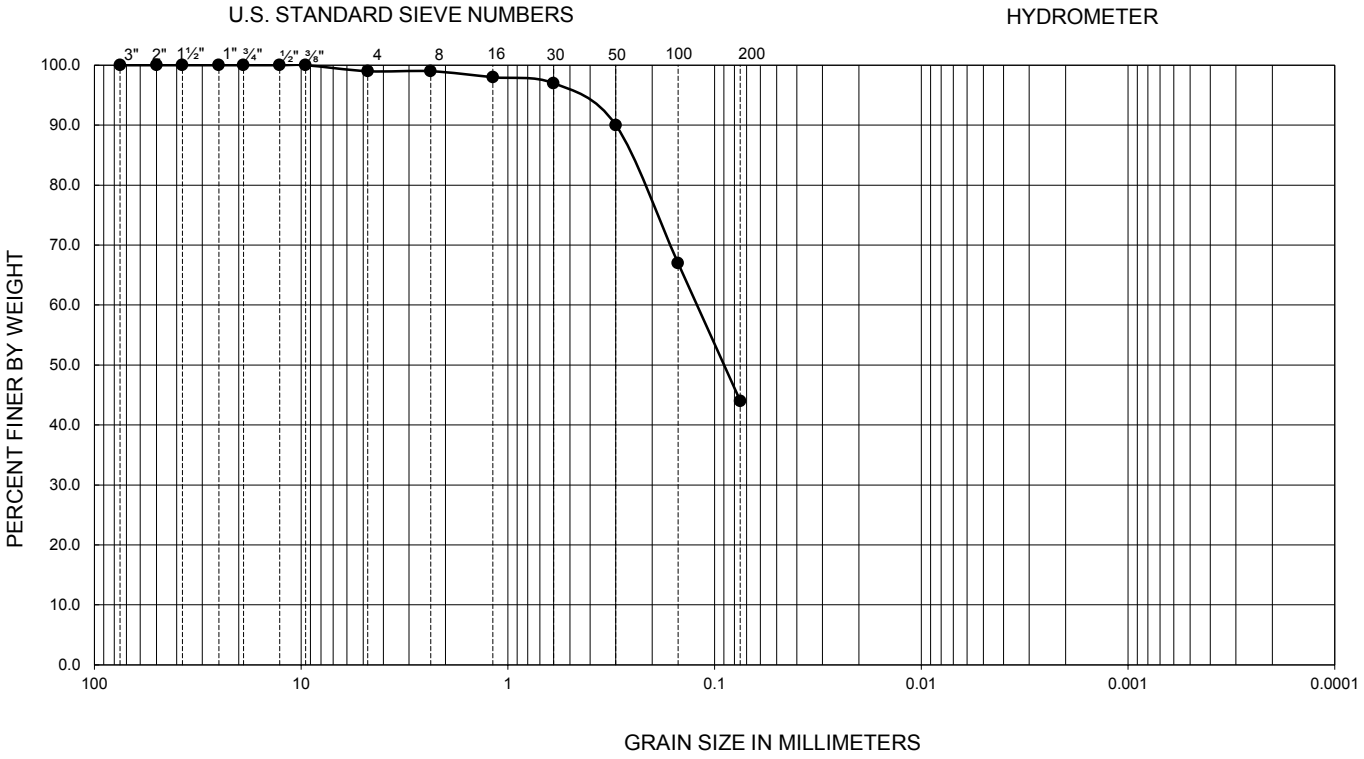
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-5	10.0-11.5	--	--	--	0.17	0.48	2.10	12.4	0.6	3	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-8
209381009 / 5/17		

209381009 B-08_SIEVE w No 8 @ B-5 10.0-11.5

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



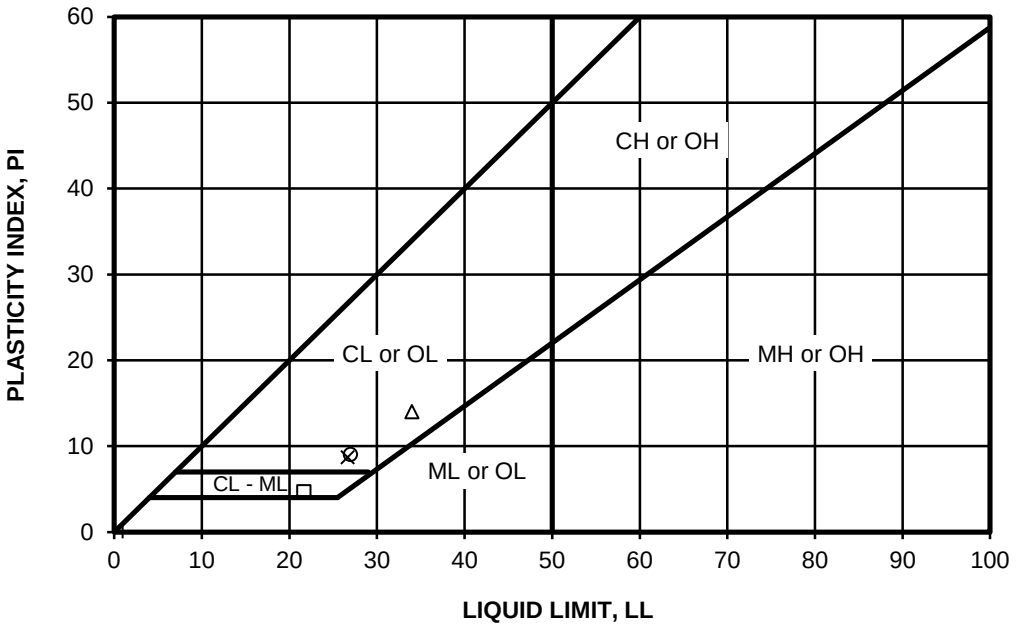
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	P-3	10.0-11.5	--	--	--	--	--	--	--	--	44	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-9
209381009 / 5/17		

SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-2	15.0-16.5	22	22	0	ML	ML
■	B-3	30.0-31.5	20	20	0	ML	SM
◆	B-3	40.0-41.5	19	19	0	ML	ML
○	B-4	25.0-26.5	27	18	9	CL	CL
□	B-5	20.0-21.5	22	17	5	CL-ML	ML
Δ	B-6	40.0-41.5	34	20	14	CL	CL
X	B-7	40.0-41.5	27	18	9	CL	CL

NP - INDICATES NON-PLASTIC



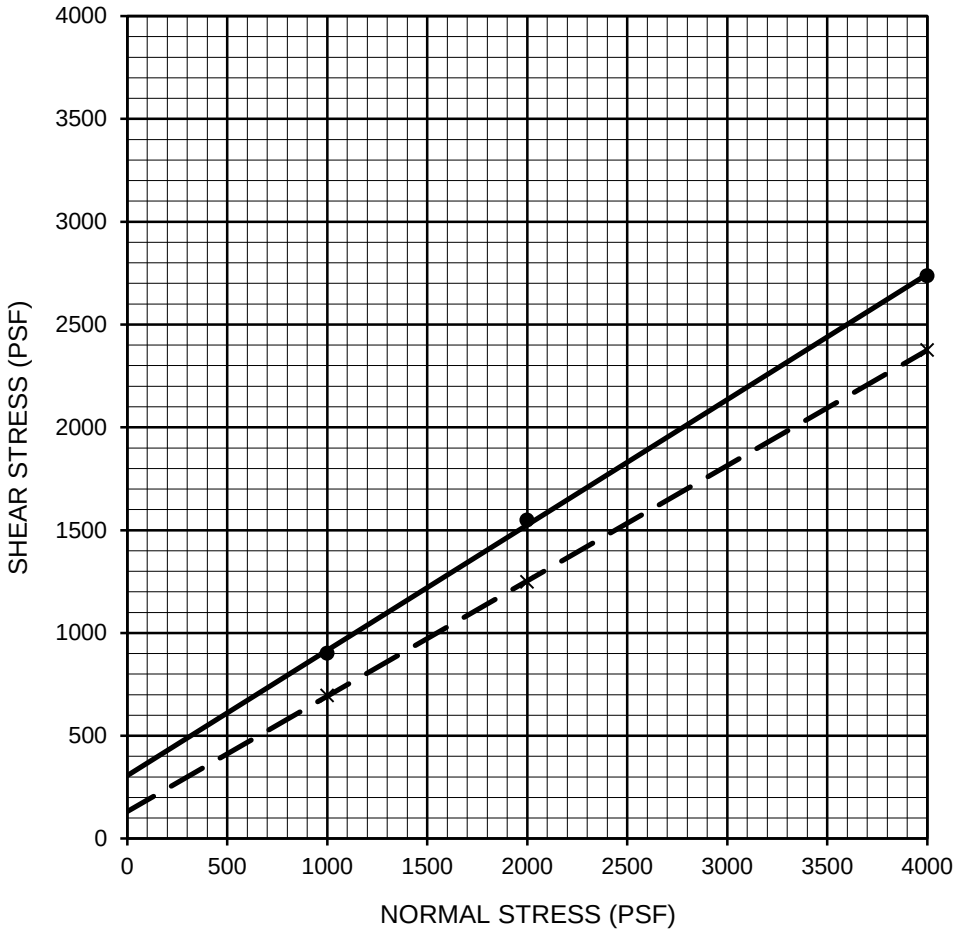
PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore	ATTERBERG LIMITS TEST RESULTS	FIGURE
PROJECT NO. 209381009 / DATE 5/17	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-10

SAMPLE LOCATION	SAMPLE DEPTH (FT)	INITIAL MOISTURE (%)	COMPACTED DRY DENSITY (PCF)	FINAL MOISTURE (%)	VOLUMETRIC SWELL (IN)	EXPANSION INDEX	POTENTIAL EXPANSION
B-3	0.5-5.0	9.5	111.4	18.8	0.000	0	Very Low
B-5	0.5-4.0	8.5	114.5	19.0	0.017	17	Very Low

PERFORMED IN GENERAL ACCORDANCE WITH ☑ UBC STANDARD 18-2 ☑ ASTM D 4829

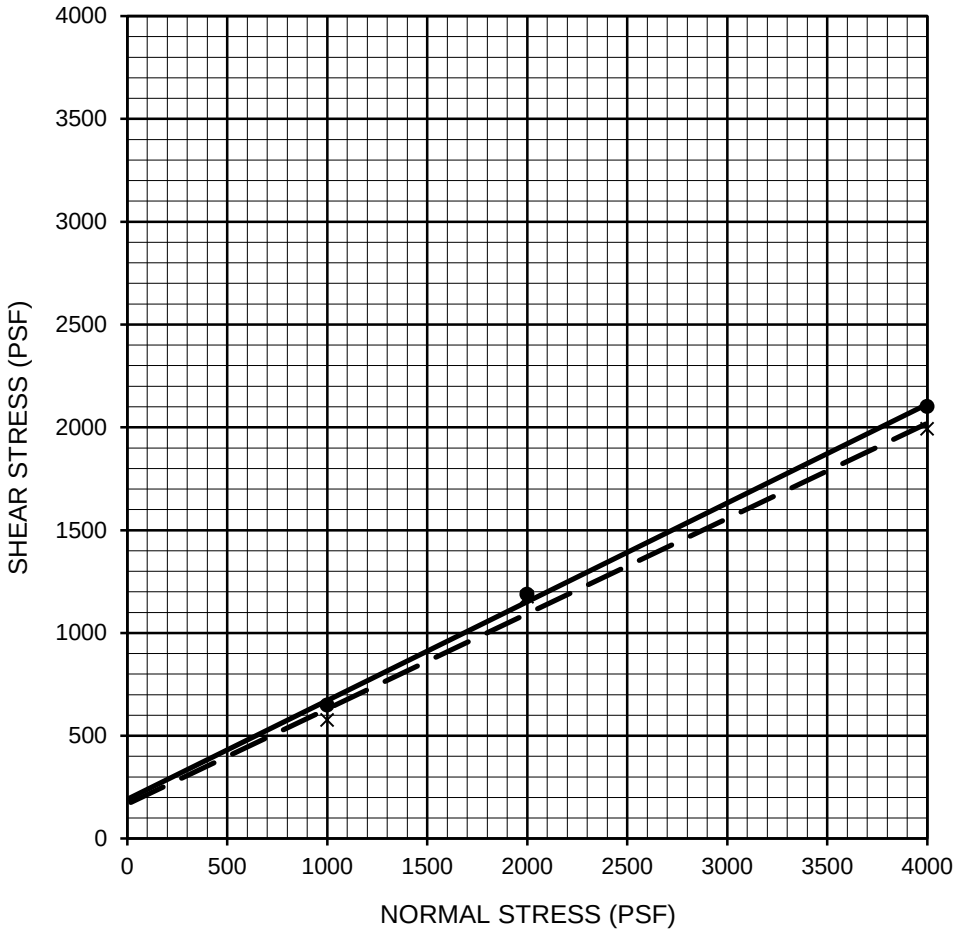
Ninyo & Moore		EXPANSION INDEX TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-11
209381009	5/17		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLY GRADED SAND WITH SILT	—●—	B-2	10.0-11.5	Peak	305	31	SP-SM
POORLY GRADED SAND WITH SILT	- - x - -	B-2	10.0-11.5	Ultimate	130	29	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

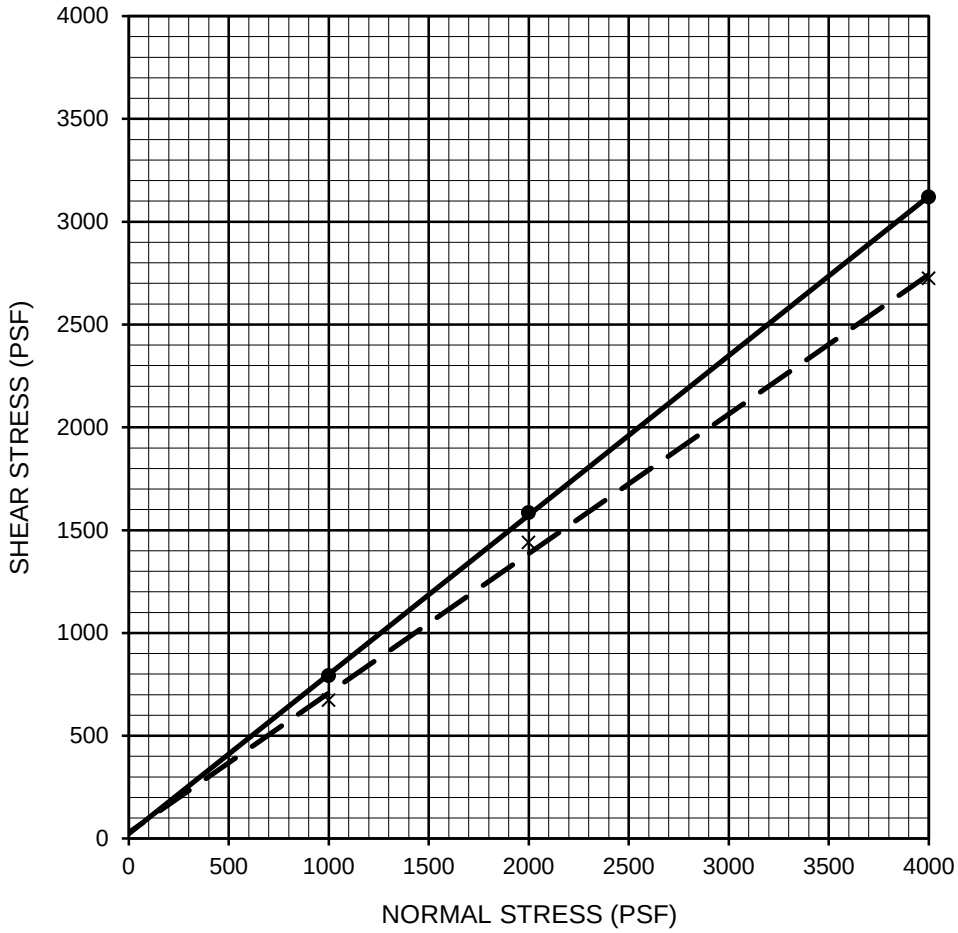
Ninyo & Moore	DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-12
209381009 / 5/17		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SANDY SILT	—●—	B-3	15.0-16.5	Peak	190	26	ML
SANDY SILT	- - x - -	B-3	15.0-16.5	Ultimate	170	25	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

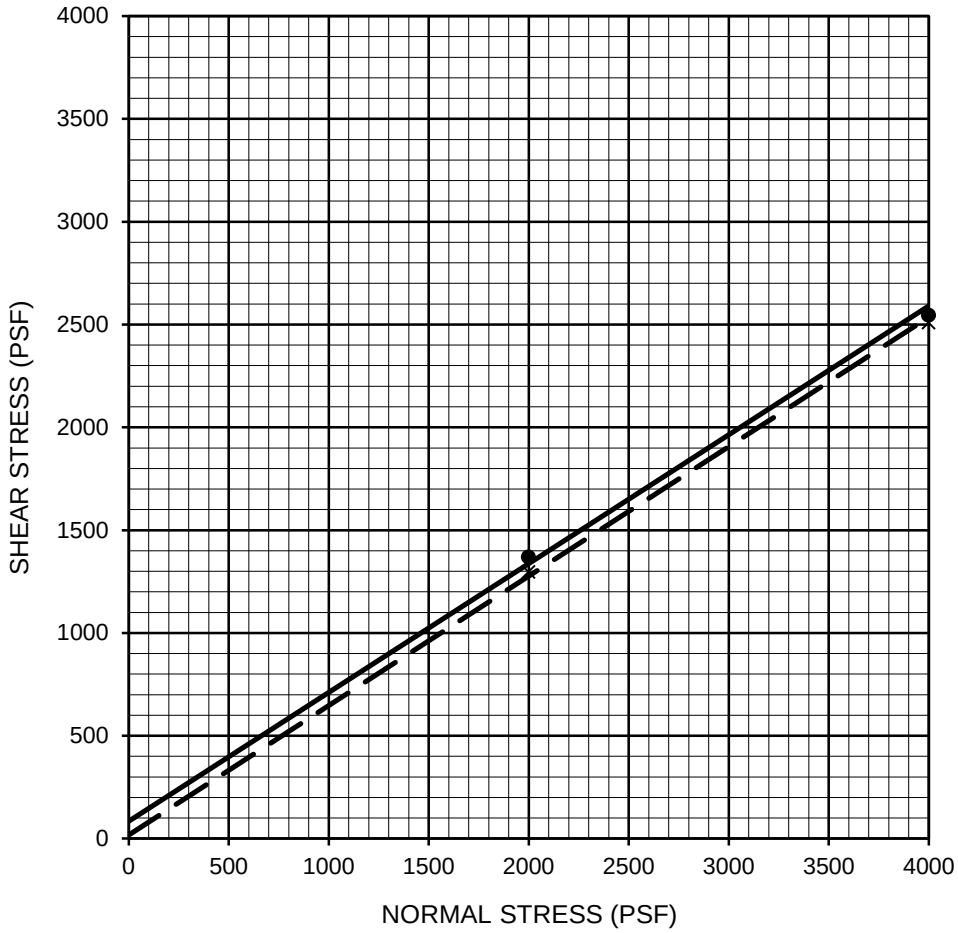
Ninyo & Moore	DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-13
209381009 / 5/17		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLY-GRADED SAND	—●—	B-8	5.0-6.5	Peak	24	38	SP
POORLY-GRADED SAND	- - x - -	B-8	5.0-6.5	Ultimate	30	34	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

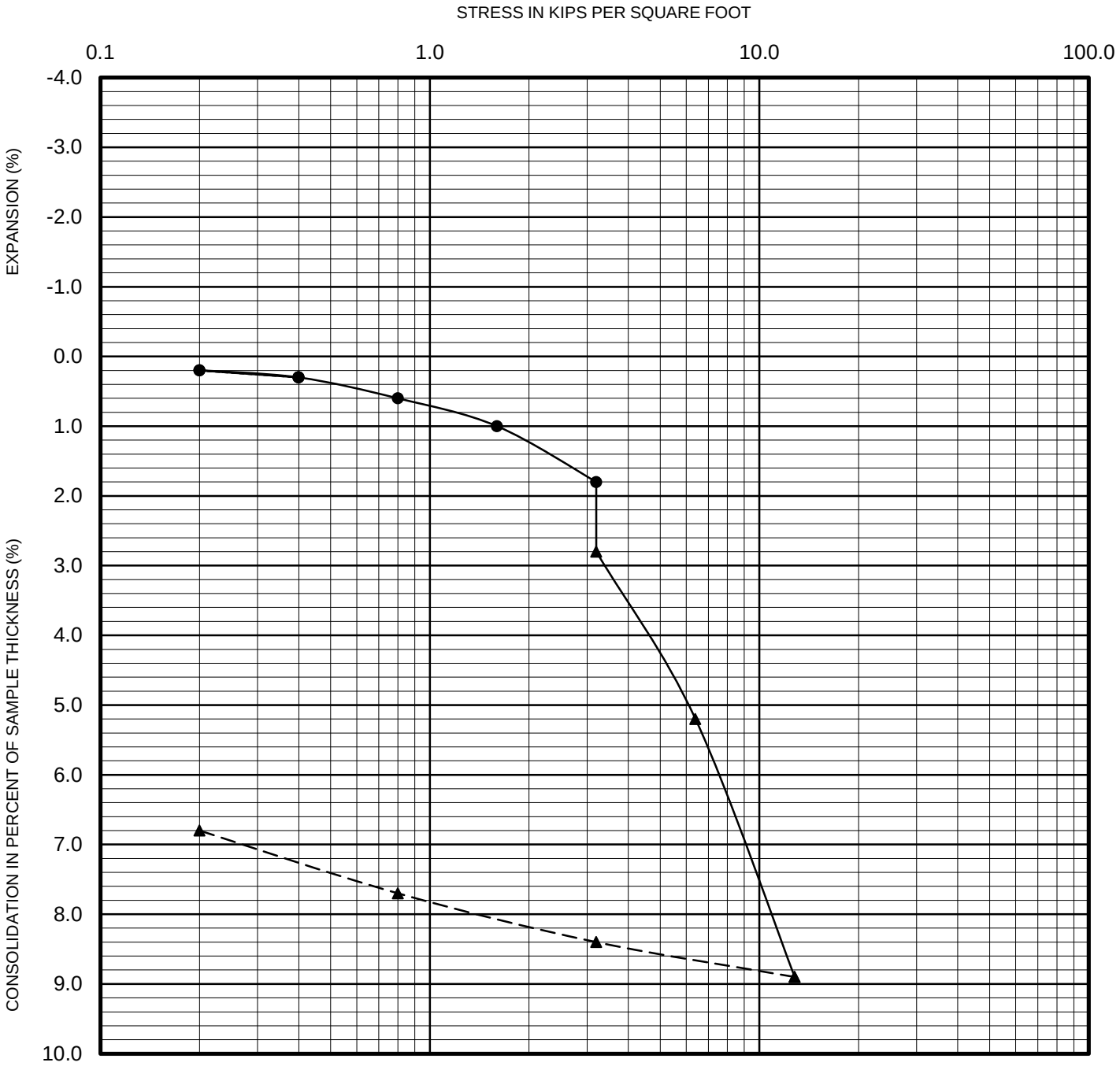
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-14
209381009	5/17		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SILT	—●—	B-11	15.0-16.5	Peak	84	32	ML
SILT	- - x - -	B-11	15.0-16.5	Ultimate	18	32	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

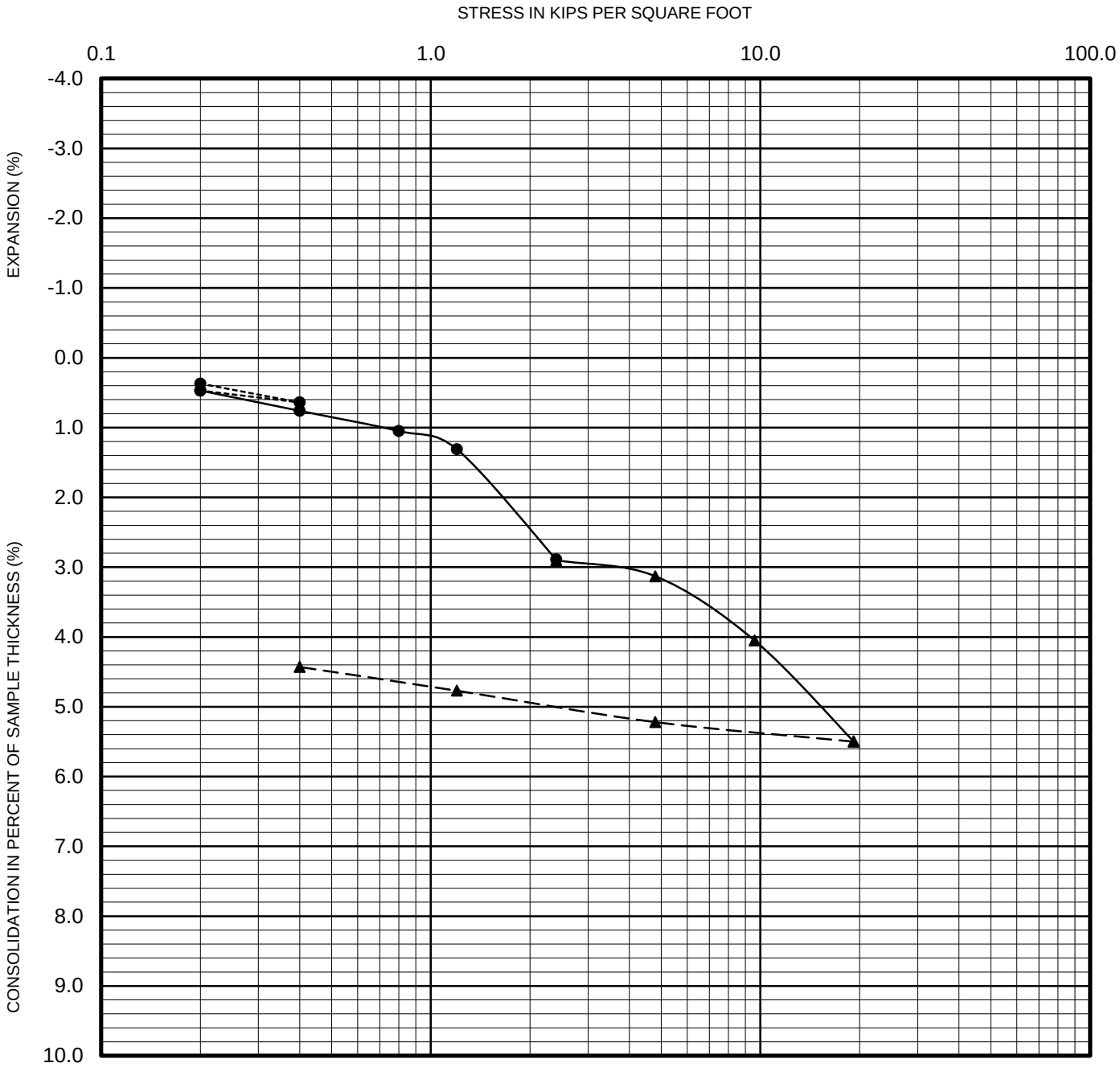
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-15
209381009	5/17		



--●--	Seating Cycle	Sample Location	B-2
—●—	Loading Prior to Inundation	Depth (ft.)	20.0-21.5
—▲—	Loading After Inundation	Soil Type	ML
--▲--	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

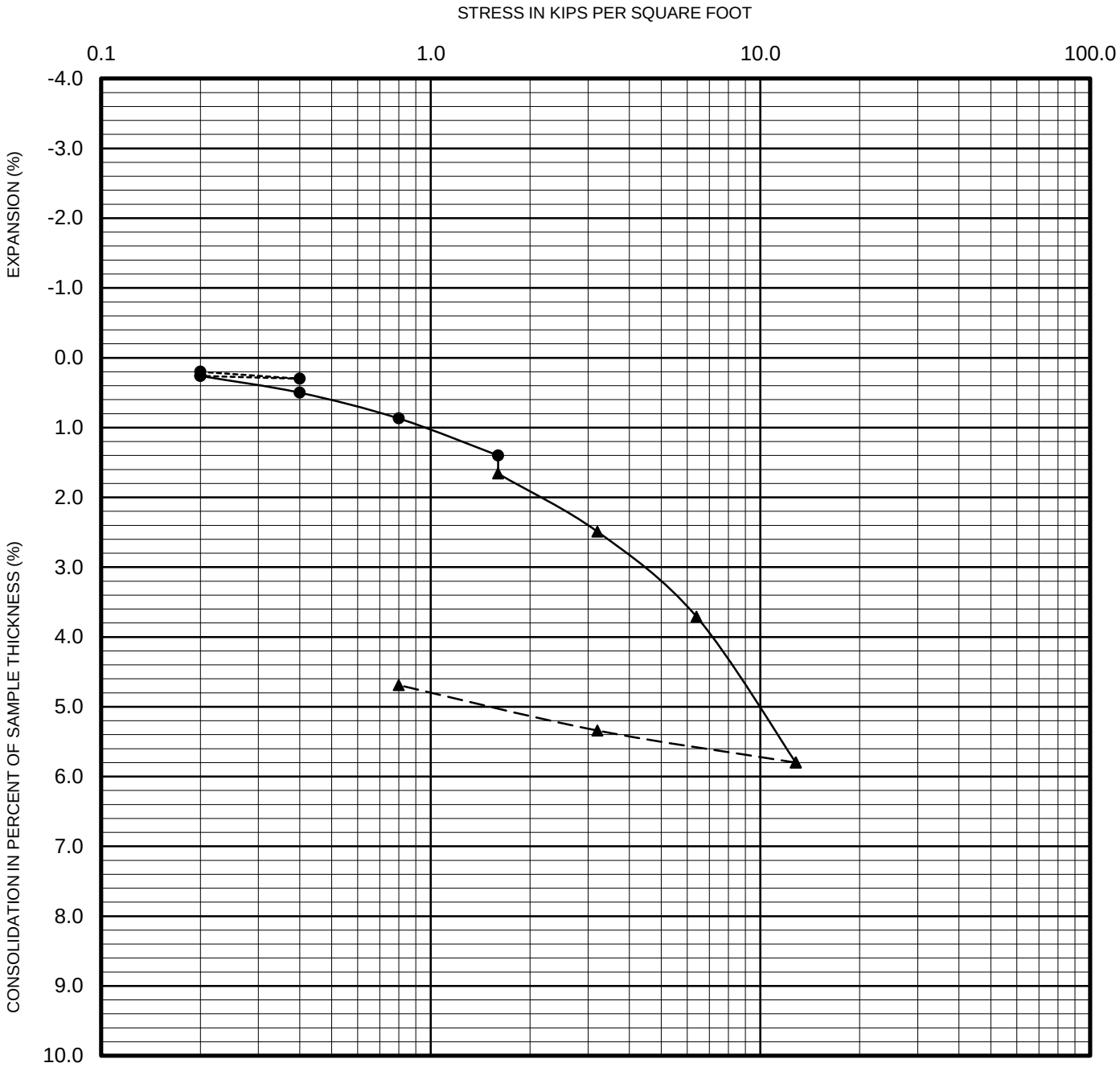
Ninyo & Moore		CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-16
209381009	5/17		



Seating Cycle		Sample Location	B-9
Loading Prior to Inundation		Depth (ft.)	20.0-21.5
Loading After Inundation		Soil Type	SM
Rebound Cycle			

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

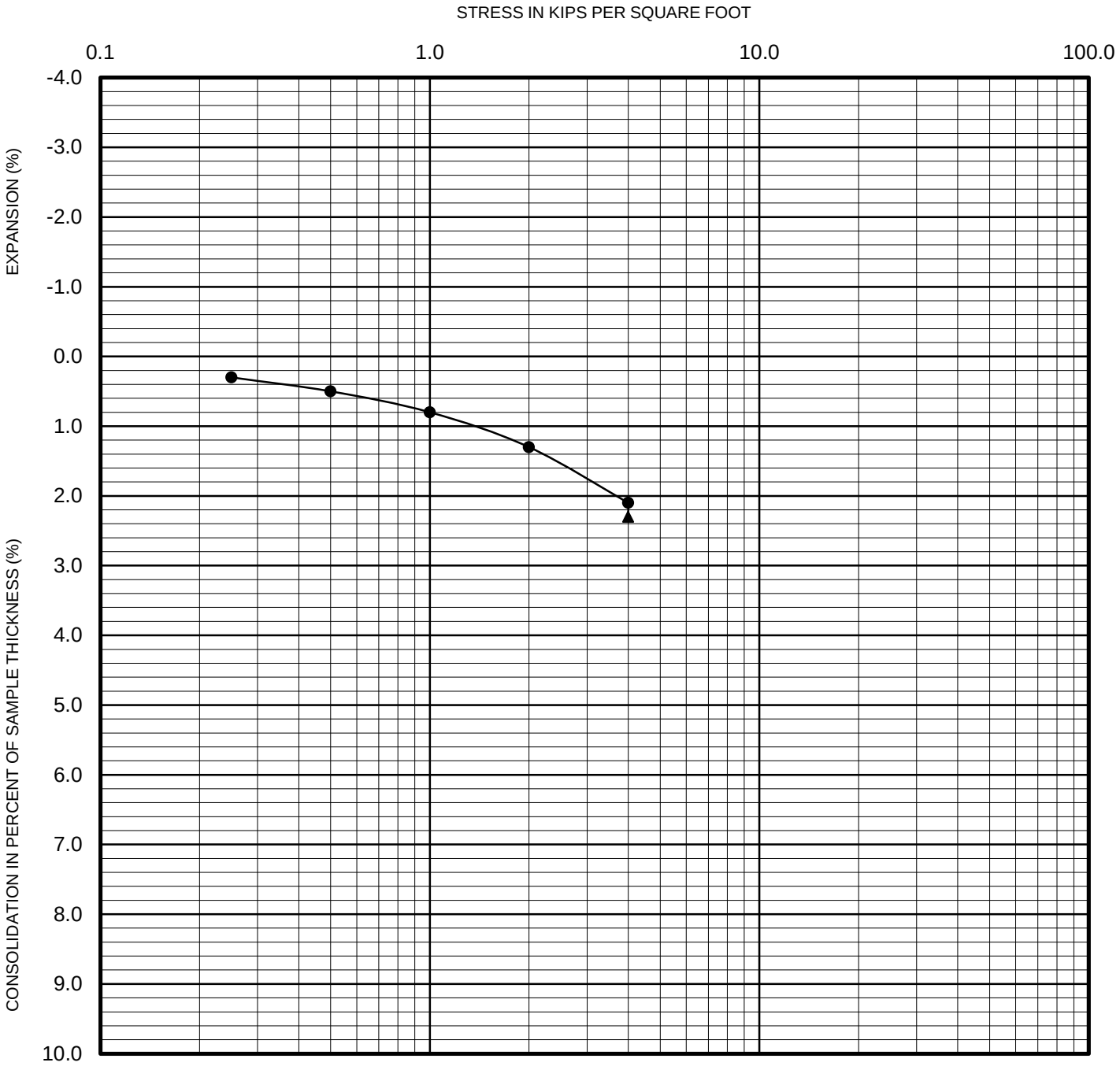
Ninyo & Moore	CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-17
209381009 / 5/17		



Seating Cycle		Sample Location	B-10
Loading Prior to Inundation		Depth (ft.)	15.0-16.5
Loading After Inundation		Soil Type	ML
Rebound Cycle			

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

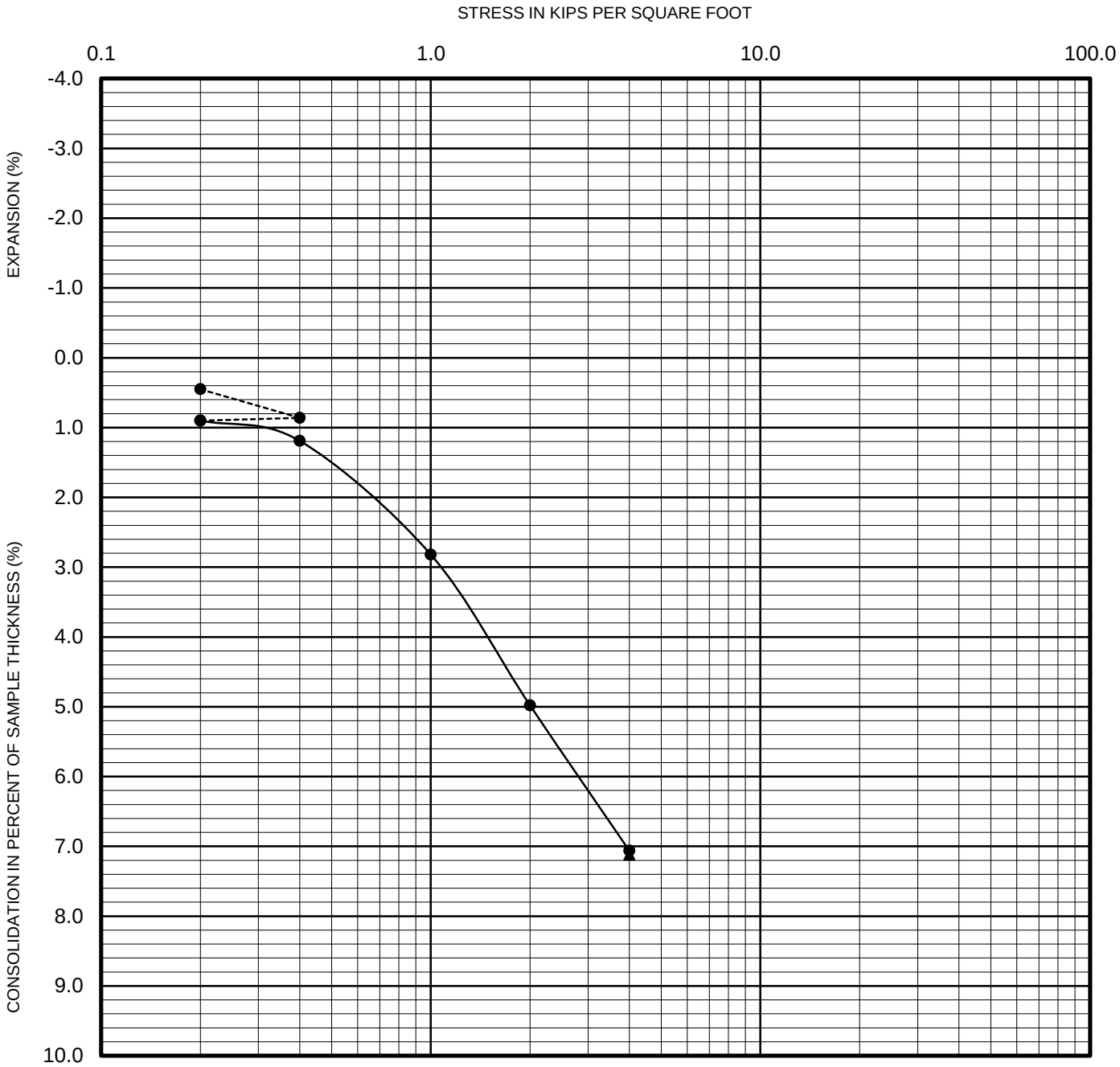
Ninyo & Moore		CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-18
209381009	5/17		



- - -●- - -	Seating Cycle	Sample Location	B-3
—●—	Loading Prior to Inundation	Depth (ft.)	25.0-26.5
—▲—	Loading After Inundation	Soil Type	ML
– –▲– –	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 5333

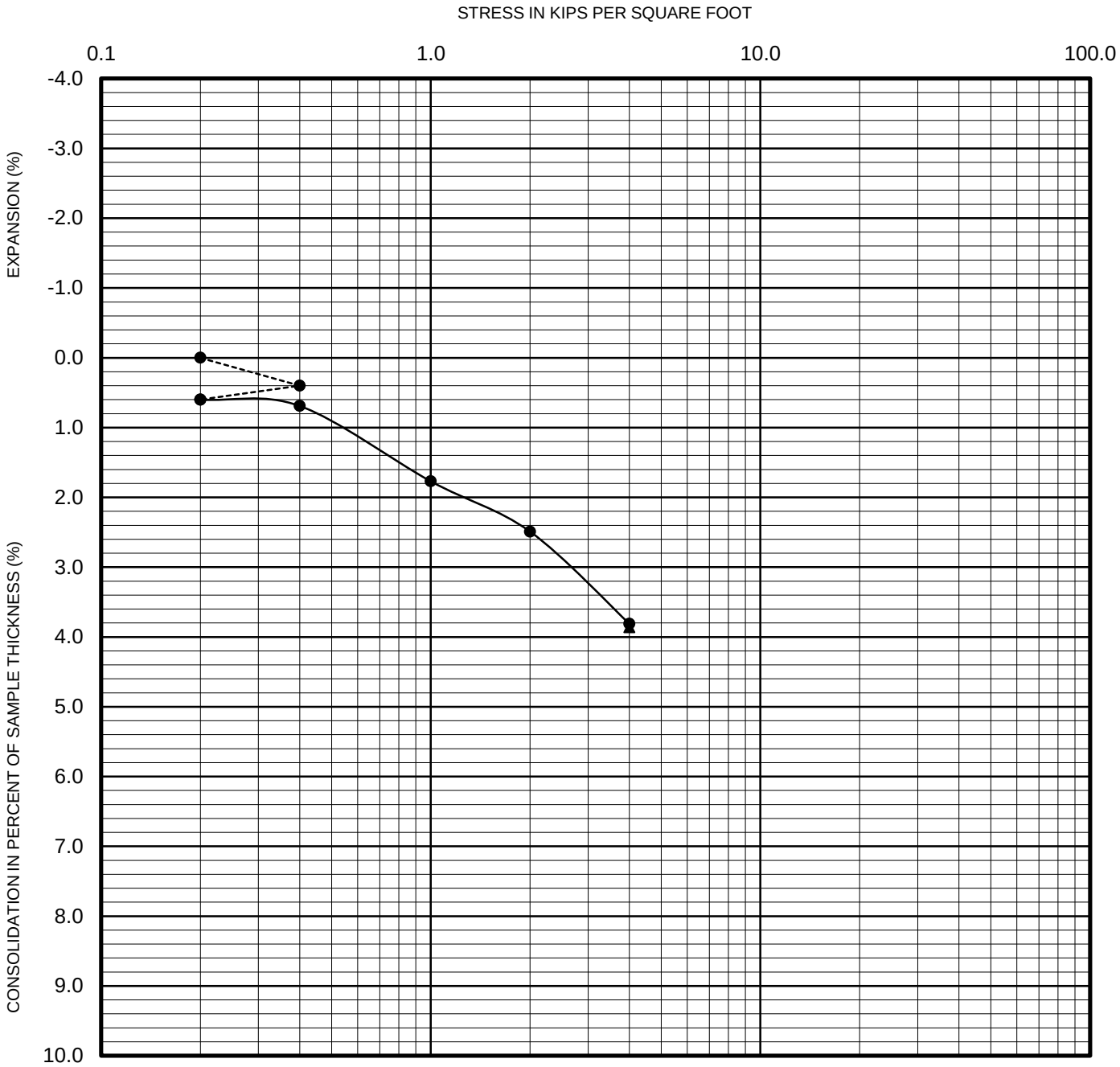
Ninyo & Moore	HYDRO-COLLAPSE POTENTIAL TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-19
209381009 / 5/17		



- - ●- - -	Seating Cycle	Sample Location	B-7
—●—	Loading Prior to Inundation	Depth (ft.)	15.0-16.5
—▲—	Loading After Inundation	Soil Type	ML
– –▲– –	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 5333

Ninyo & Moore	HYDRO-COLLAPSE POTENTIAL TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-20
209381009 / 5/17		



- - -●- - -	Seating Cycle	Sample Location	P-3
—●—	Loading Prior to Inundation	Depth (ft.)	10.0-11.5
—▲—	Loading After Inundation	Soil Type	SM
– –▲– –	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 5333

Ninyo & Moore	HYDRO-COLLAPSE POTENTIAL TEST RESULTS	FIGURE
PROJECT NO. / DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-21
209381009 / 5/17		

SAMPLE LOCATION	SAMPLE DEPTH (FT)	SOIL TYPE	R-VALUE
B-1	0.5-5.0	ML	73

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2844/CT 301

Ninyo & Moore		R-VALUE TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-22
209381009	5/17		

SAMPLE LOCATION	SAMPLE DEPTH (FT)	pH [1]	RESISTIVITY [1] (Ohm-cm)	SULFATE CONTENT [2]		CHLORIDE CONTENT [3] (ppm)
				(ppm)	(%)	
B-1	0.5-5.0	7.0	2,670	80	0.008	35
B-5	0.5-4.0	7.4	2,726	70	0.007	80
B-11	0.5-5.0	7.0	6,922	10	0.001	65

[1] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643
[2] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417
[3] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

Ninyo & Moore		CORROSIVITY TEST RESULTS	FIGURE
PROJECT NO.	DATE	ULYSSES S. GRANT HIGH SCHOOL MODERNIZATION 13000 OXNARD STREET VAN NUYS, CALIFORNIA	B-23
209381009	5/17		

APPENDIX C

CONE PENETRATION TEST RESULTS

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

LAUSD/Ulysses S. Grant High School
13000 Oxnard Street
Van Nuys, CA
September 29, 2016

Prepared for:

Mr. Franklin Ruiz
Ninyo & Moore
475 Goddard, Ste 200
Irvine, CA 92618-4605
Office (949) 753-7070 / Fax (949) 753-7071

Prepared by:

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Huntington Beach, CA 92649-1518
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www.kehoetesting.com

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1. **INTRODUCTION**

2. **SUMMARY OF FIELD WORK**

3. **FIELD EQUIPMENT & PROCEDURES**

4. **CONE PENETRATION TEST DATA & INTERPRETATION**

APPENDIX

- CPT Plots
- CPT Classification/Soil Behavior Chart
- Interpretation Output (CPeT-IT)
- CPeT-IT Calculation Formulas

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the LAUSD/Ulysses S. Grant High School project located at 13000 Oxnard Street in Van Nuys, California. The work was performed by Kehoe Testing & Engineering (KTE) on September 29, 2016. The scope of work was performed as directed by Ninyo & Moore personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at four locations to determine the soil lithology. Groundwater measurements and hole collapse depths provided in **TABLE 2.1** are for information only. The readings indicate the apparent depth to which the hole is open and the apparent water level (if encountered) in the CPT probe hole at the time of measurement upon completion of the CPT. KTE does not warranty the accuracy of the measurements and the reported water levels may not represent the true or stabilized groundwater levels.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	60	Hole open to 59 ft (dry)
CPT-2	70	Hole open to 50 ft (dry)
CPT-3	70	Hole open to 66 ft (dry)
CPT-4	70	Hole open to 2 ft (dry)

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone and recorded the following parameters at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil classification on the CPT plots is derived from the attached CPT Classification Chart (Robertson) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

Tables of basic CPT output from the interpretation program CPeT-IT are provided for CPT data averaged over one foot intervals in the Appendix. Spreadsheet files of the averaged basic CPT output and averaged estimated geotechnical parameters are also included for use in further geotechnical analysis. We recommend a geotechnical engineer review the assumed input parameters and the calculated output from the CPeT-IT program. A summary of the equations used for the tabulated parameters is provided in the Appendix.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING

Richard W. Koester, Jr.
General Manager

10/07/16-ms-7633

APPENDIX

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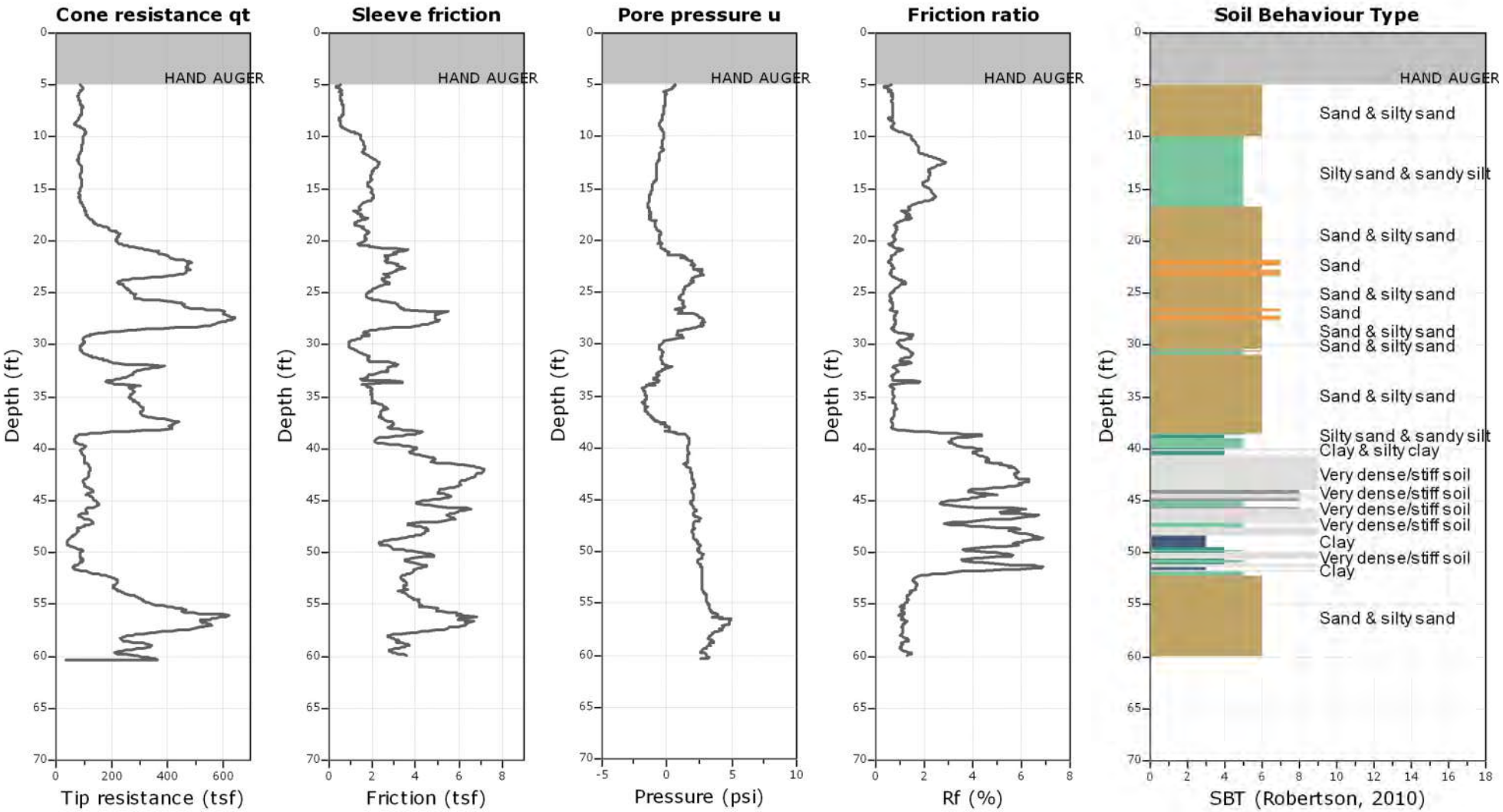
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com

CPT: CPT-1

Project: **Ninyo & Moore/LAUSD/Ulysses S. Grant High School**
Location: **13000 Oxnard St Van Nuys, CA**

Total depth: 60.32 ft, Date: 9/29/2016
Cone Type: Vertek



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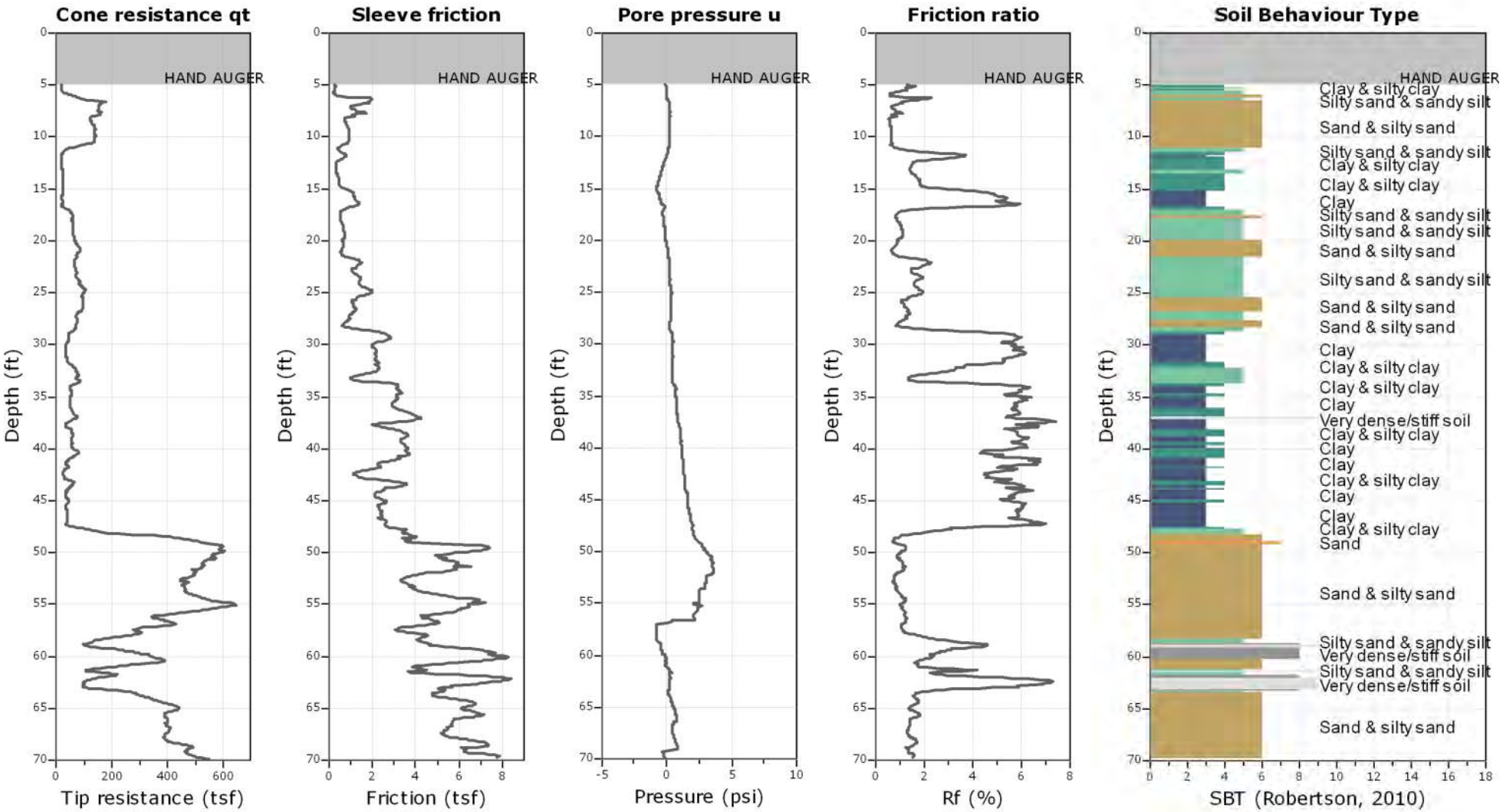
CPT: CPT-2

Project: **Ninyo & Moore/LAUSD/Ulysses S. Grant High School**
Location: **13000 Oxnard St Van Nuys, CA**

Total depth: 70.09 ft, Date: 9/29/2016
Cone Type: Vertek



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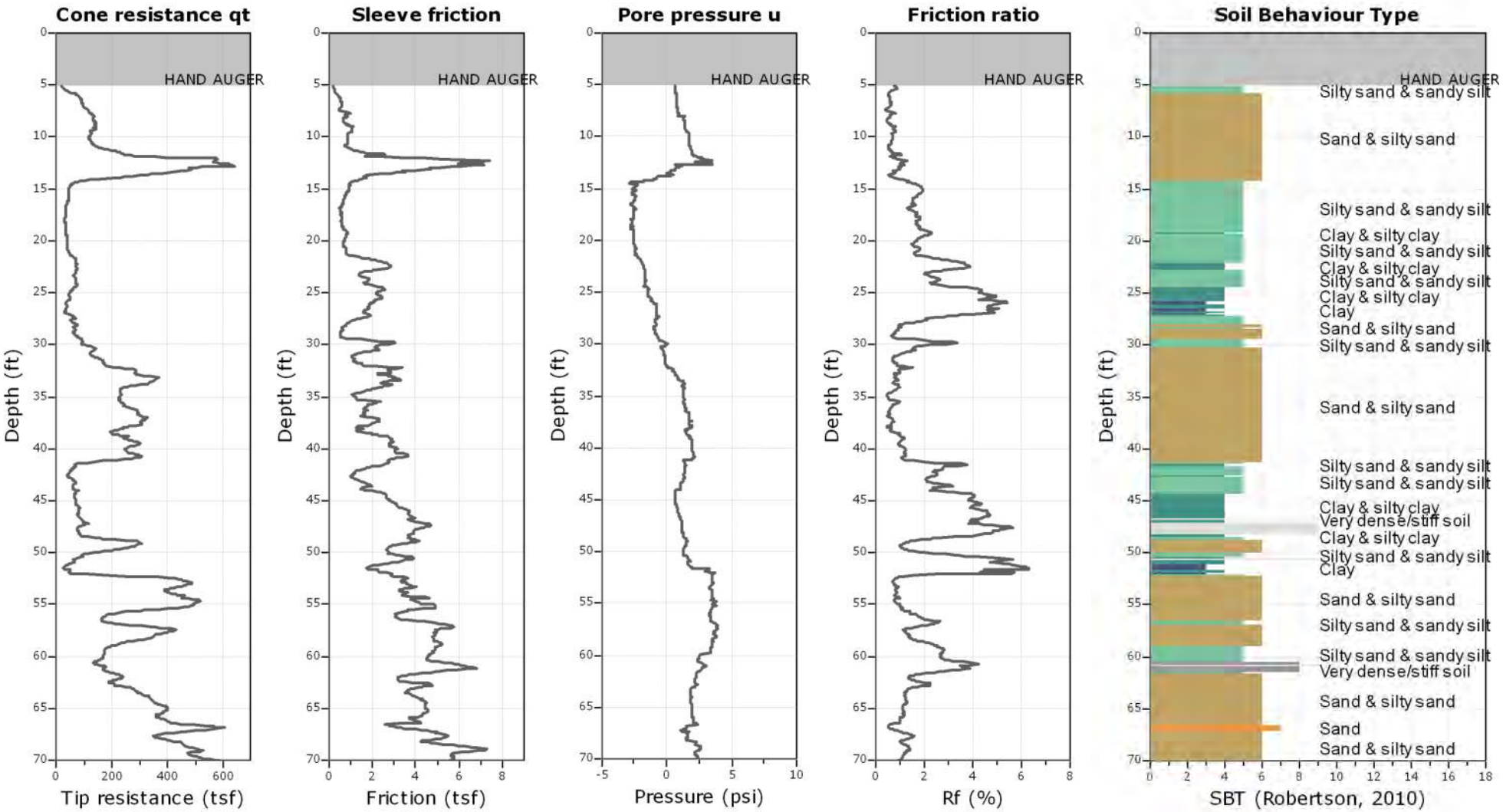
CPT: CPT-3

Project: **Ninyo & Moore/LAUSD/Ulysses S. Grant High School**
Location: **13000 Oxnard St Van Nuys, CA**

Total depth: 70.43 ft, Date: 9/29/2016
Cone Type: Vertek



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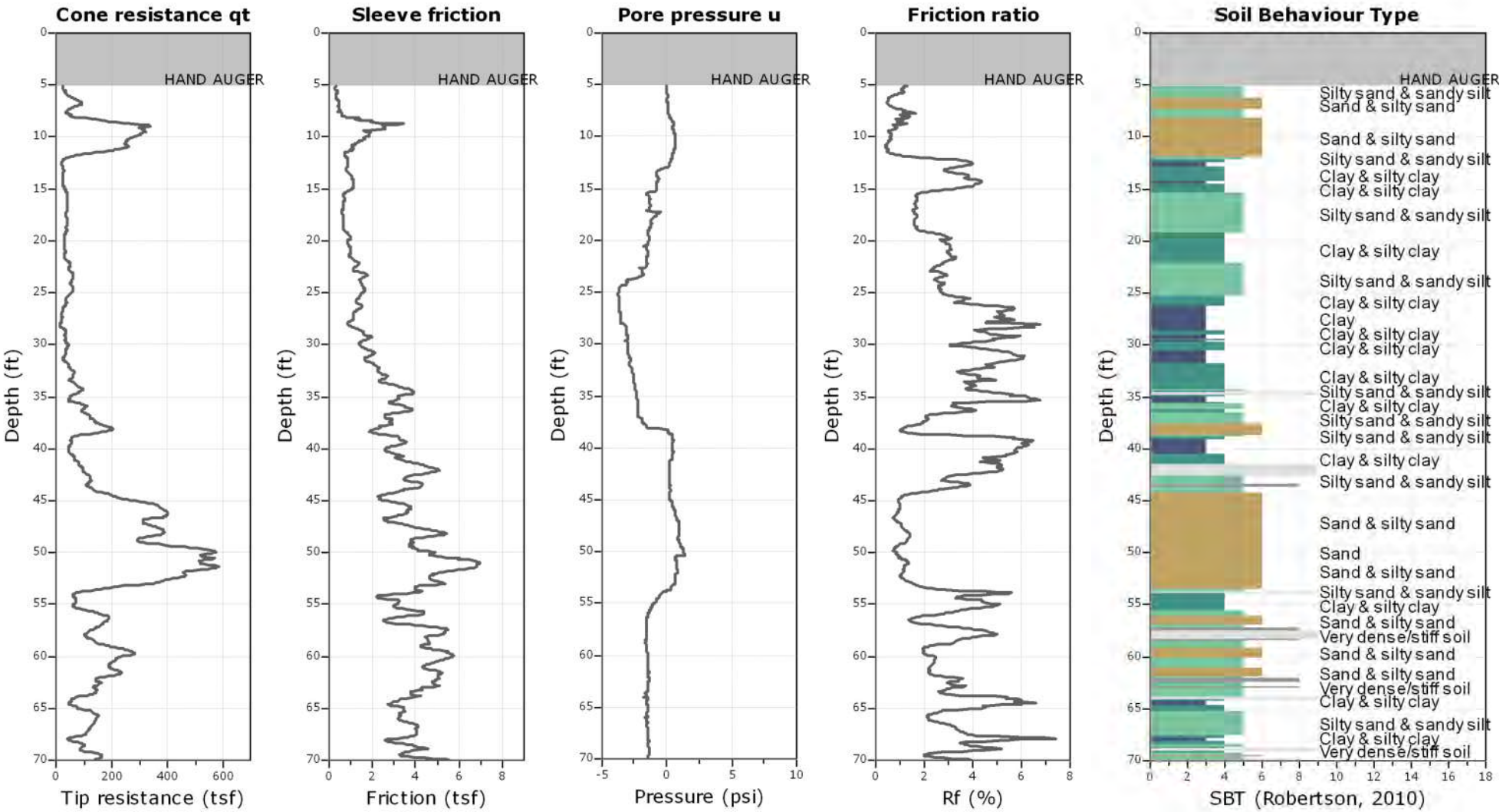
CPT: CPT-4

Project: **Ninyo & Moore/LAUSD/Ulysses S. Grant High School**
Location: **13000 Oxnard St Van Nuys, CA**

Total depth: 70.67 ft, Date: 9/29/2016
Cone Type: Vertek



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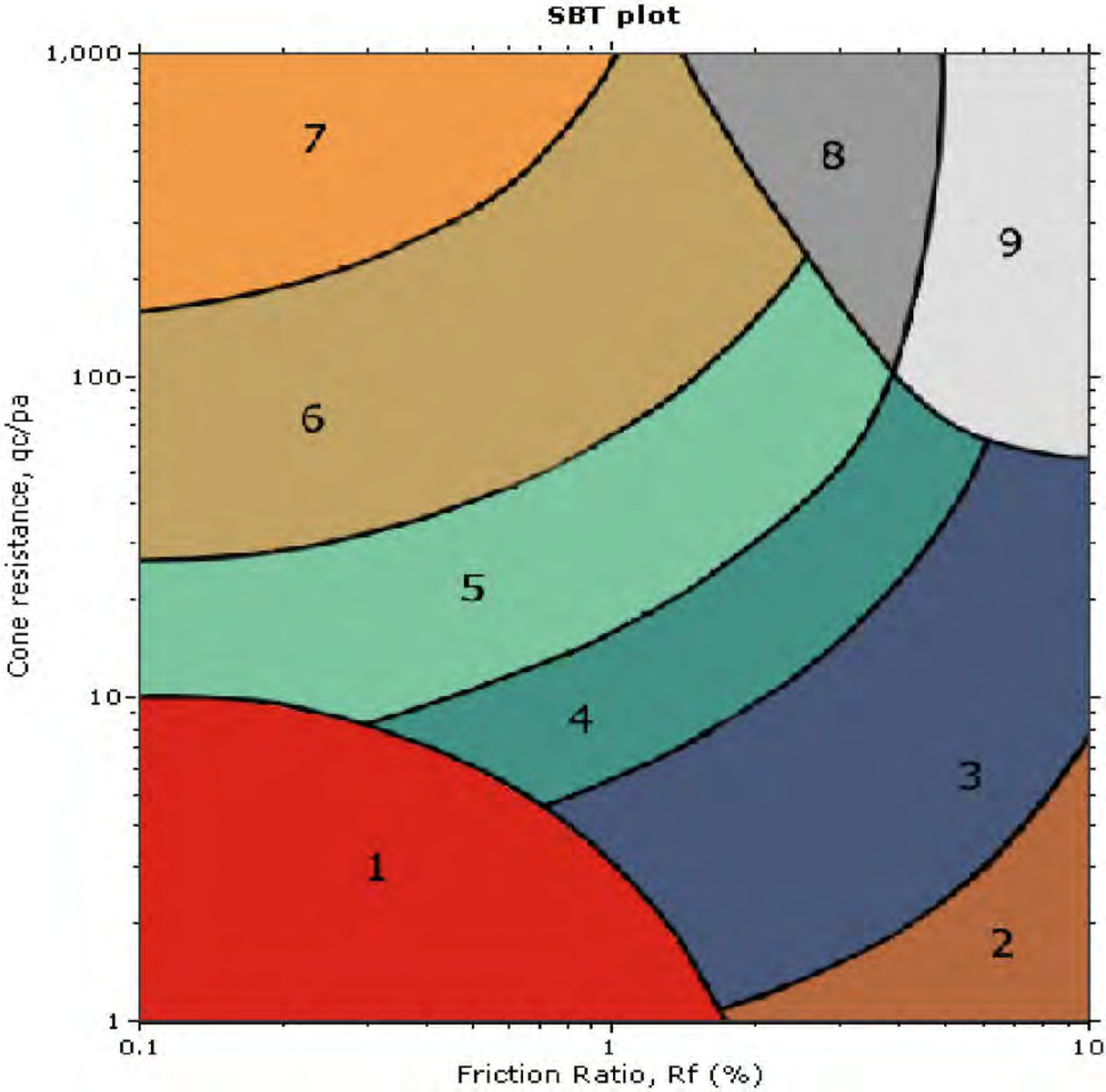

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

	CPT-1	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	118	1.4	0.54	0.46	118.007	1.1864	6	1.92324	124.3692	0.06218	0	0.0622	1896.7	1.187	0.0003	6	0.4494	3.5736	1.5595	398.3356
2	75.9	0.86	1.53	0.54	75.9187	1.1328	5	2.05646	119.7278	0.12205	0	0.1221	621.04	1.1346	0.0015	6	0.5085	2.9993	1.7088	214.8491
3	52.8	0.55	0.75	0.64	52.8092	1.0415	5	2.16128	115.5717	0.17983	0	0.1798	292.65	1.045	0.001	6	0.5564	2.6806	1.8289	133.3299
4	62	0.59	0.57	0.62	62.007	0.9515	5	2.08166	116.477	0.23807	0	0.2381	259.45	0.9552	0.0007	6	0.5494	2.2695	1.8047	132.4844
5	86.7	0.55	0.6	0.61	86.7073	0.6343	6	1.86218	116.7811	0.29646	0	0.2965	291.47	0.6365	0.0005	6	0.4909	1.8675	1.6443	152.5089
6	80.4	0.52	-0.1	0.66	80.3988	0.6468	6	1.89427	116.1865	0.35456	0	0.3546	225.76	0.6496	-9E-05	6	0.5137	1.7537	1.6975	132.6608
7	93.7	0.64	-0.19	0.69	93.6977	0.6831	6	1.85224	118.0791	0.4136	0	0.4136	225.54	0.6861	-2E-04	6	0.5116	1.6169	1.6876	142.551
8	85.5	0.6	-0.38	0.75	85.4954	0.7018	6	1.89169	117.3834	0.47229	0	0.4723	180.02	0.7057	-3E-04	6	0.5359	1.5408	1.7432	123.8062
9	83.3	0.56	-0.57	0.83	83.293	0.6723	6	1.89067	116.815	0.5307	0	0.5307	155.95	0.6766	-5E-04	6	0.5456	1.4571	1.7608	113.9724
10	99.5	1.47	-0.29	0.87	99.4965	1.4774	5	2.04228	124.31	0.59285	0	0.5929	166.83	1.4863	-2E-04	6	0.6153	1.4282	1.9354	133.4985
11	92.2	1.65	-0.39	0.93	92.1952	1.7897	5	2.12354	124.9693	0.65534	0	0.6553	139.68	1.8025	-3E-04	5	0.6551	1.3687	2.0319	118.4077
12	81.4	1.99	-0.57	1.02	81.393	2.4449	5	2.2573	126.0363	0.71835	0	0.7184	112.31	2.4667	-5E-04	5	0.7145	1.3188	2.1801	100.551
13	92.8	2.13	-0.76	1.1	92.7907	2.2955	5	2.19795	126.8534	0.78178	0	0.7818	117.69	2.315	-6E-04	5	0.7023	1.2368	2.14	107.5504
14	89.5	1.93	-0.86	1.16	89.4895	2.1567	5	2.1896	126.0436	0.8448	0	0.8448	104.93	2.1772	-7E-04	5	0.7082	1.1729	2.1472	98.25779
15	88.1	1.97	-1.15	1.23	88.0859	2.2365	5	2.20564	126.1551	0.90788	0	0.9079	96.024	2.2597	-1E-03	5	0.723	1.1171	2.1785	92.03595
16	85.7	1.98	-1.34	1.33	85.6836	2.3108	5	2.22419	126.1247	0.97094	0	0.9709	87.248	2.3373	-0.001	5	0.7387	1.0656	2.2119	85.30942
17	102.3	1.46	-1.34	1.45	102.284	1.4274	6	2.02331	124.3274	1.03311	0	1.0331	98.006	1.442	-1E-03	6	0.6701	1.0162	2.0244	97.23592
18	127.7	1.46	-1.3	1.54	127.684	1.1435	6	1.88719	124.8684	1.09554	0	1.0955	115.55	1.1533	-7E-04	6	0.6255	0.9785	1.8994	117.0634
19	202.5	1.71	-0.66	1.64	202.492	0.8445	6	1.65115	127.1497	1.15911	0	1.1591	173.7	0.8493	-2E-04	6	0.5412	0.9519	1.6702	181.1159
20	218.5	1.68	-0.57	1.66	218.493	0.7689	6	1.59912	127.2057	1.22272	0	1.2227	177.69	0.7732	-2E-04	6	0.5277	0.9265	1.6267	190.2542
21	365.6	3.34	-0.19	1.56	365.598	0.9136	6	1.50396	133.4893	1.28946	0	1.2895	282.53	0.9168	-4E-05	6	0.4949	0.9068	1.5328	312.2011
22	477.4	2.62	1.91	1.14	477.423	0.5488	7	1.25924	132.3636	1.35564	0	1.3556	351.17	0.5503	0.0003	7	0.4054	0.9044	1.2897	406.9184
23	470.5	2.95	2.73	1.25	470.533	0.627	7	1.3078	133.1962	1.42224	0	1.4222	329.84	0.6289	0.0004	6	0.4297	0.8807	1.345	390.4416
24	223.3	2.82	2.04	1.3	223.325	1.2627	6	1.74878	131.0488	1.48777	0	1.4878	149.11	1.2712	0.0007	6	0.6113	0.812	1.8134	170.2304
25	273.3	1.79	1.24	1.23	273.315	0.6549	6	1.4808	128.2157	1.55187	0	1.5519	175.12	0.6587	0.0003	6	0.5125	0.8218	1.5464	211.0629
26	447.4	3.04	1.24	1.2	447.415	0.6795	6	1.34873	133.2932	1.61852	0	1.6185	275.43	0.6819	0.0002	6	0.4622	0.8217	1.4059	346.1726
27	601.7	5.04	0.87	1.12	601.711	0.8376	6	1.34832	137.28	1.68716	0	1.6872	355.64	0.84	0.0001	6	0.464	0.8054	1.4022	456.6889
28	569.9	4.39	2.63	1.04	569.932	0.7703	6	1.33054	136.5723	1.75545	0	1.7555	323.67	0.7727	0.0003	6	0.4632	0.791	1.3915	424.7326
29	130.5	1.89	0.86	0.98	130.511	1.4482	6	1.9514	126.8107	1.81885	0	1.8189	70.754	1.4686	0.0005	5	0.7304	0.6732	2.085	81.88025
30	94.7	0.92	-0.38	1.08	94.6954	0.9715	6	1.93982	120.7603	1.87923	0	1.8792	49.39	0.9912	-3E-04	5	0.7388	0.6542	2.0993	57.38635
31	114.9	1.69	-0.45	1.16	114.894	1.4709	6	1.9956	125.6814	1.94207	0	1.9421	58.161	1.4962	-3E-04	5	0.763	0.6292	2.1552	67.16329
32	347.5	3.09	-0.17	0.98	347.498	0.8892	6	1.5086	132.7962	2.00847	0	2.0085	172.02	0.8944	-4E-05	6	0.5605	0.6982	1.6153	227.9795
33	262.1	1.76	-0.57	0.93	262.093	0.6715	6	1.50142	127.9898	2.07247	0	2.0725	125.46	0.6769	-2E-04	6	0.569	0.6821	1.6295	167.6295
34	287.9	1.71	-1.47	0.47	287.882	0.594	6	1.43509	128.0078	2.13647	0	2.1365	133.75	0.5984	-4E-04	6	0.5473	0.6807	1.5644	183.8353
35	265	1.98	-1.63	0.14	264.98	0.7472	6	1.5308	128.8783	2.20091	0	2.2009	119.4	0.7535	-5E-04	6	0.5917	0.6483	1.6731	161.0085
36	310.7	2.5	-1.65	0.23	310.68	0.8047	6	1.50714	130.9727	2.2664	0	2.2664	136.08	0.8106	-4E-04	6	0.5848	0.6406	1.6466	186.7064
37	341.5	2.43	-1.17	0.12	341.486	0.7116	6	1.43997	130.9955	2.33189	0	2.3319	145.44	0.7165	-3E-04	6	0.5624	0.6412	1.5796	205.5302
38	414.6	2.74	0.15	0.04	414.602	0.6609	6	1.36044	132.3472	2.39807	0	2.3981	171.89	0.6647	3E-05	6	0.5326	0.6468	1.493	251.9689
39	70	2.29	1.63	-0.12	70.02	3.2705	5	2.39355	126.6966	2.46141	0	2.4614	27.447	3.3897	0.0017	4	0.9867	0.4348	2.6777	27.7579
40	94.7	4.02	1.63	-0.19	94.72	4.2441	9	2.39142	131.5511	2.52719	0	2.5272	36.48	4.3604	0.0013	4	0.9829	0.425	2.6596	37.02781
41	105	4.9	1.63	-0.21	105.02	4.6658	9	2.39552	133.2512	2.59382	0	2.5938	39.489	4.7839	0.0012	4	0.988	0.4123	2.6649	39.91493
42	123.4	7.15	1.82	-0.27	123.422	5.7931	9	2.42914	136.41	2.66202	0	2.662	45.364	5.9208	0.0011	3	1	0.3975	2.694	45.36412
43	101	6.37	1.91	-0.19	101.023	6.3055	9	2.50992	135.0763	2.72956	0	2.7296	36.011	6.4806	0.0014	3	1	0.3877	2.7909	36.01088
44	130.3	5.08	1.91	-0.08	130.323	3.898	8	2.27644	134.0417	2.79658	0	2.7966	45.601	3.9835	0.0011	4	0.956	0.3949	2.5546	47.59455
45	141.7	4.39	2.05	-0.05	141.725	3.0976	5	2.17519	133.1781	2.86317	0	2.8632	48.499	3.1614	0.0011	4	0.9212	0.3997	2.4538	52.45829
46	109.2	6.07	2.27	0.06	109.228	5.5572	9	2.44564	134.9138	2.93063	0	2.9306	36.271	5.7104	0.0015	3	1	0.3611	2.749	36.27114
47	132	5.03	2.49	0.12	132.03	3.8097	8	2.2651	134.0011	2.99763	0	2.9976	43.045	3.8982	0.0014	4	0.971	0.3638	2.5695	44.36348
48	78.7	4.44	1.91	0.17	78.7234	5.64	9	2.53789	131.827	3.06354	0	3.0635	24.697	5.8684	0.0018	3	1	0.3454	2.8757	24.69687
49	40.4	2.38	2.34	0.24	40.4286	5.8869	3	2.74292	125.6391	3.12636	0	3.1264	11.932	6.3803	0.0045	3	1	0.3385	3.135	11.93154
50	88.1	4.22	2.41	0.3	88.1295	4.7884	9	2.45181	131.7304	3.19222	0	3.1922	26.608	4.9684	0.002	3	1	0.3315	2.8025	26.60755
51	87	3.91	2.39	0.39	87.0293	4.4927	9	2.43391	131.1415	3.2578	0	3.2578	25.714	4.6675	0.0021	3	1	0.3248	2.7949	25.71415
52	134.9	3.72	2.77	0.44	134.934	2.7569	5	2.1491	131.8466	3.32372	0	3.3237	39.597	2.8265	0.0015	4	0.9581	0.334	2.4942	41.54324
53	215.9	3.59	2.77	0.44	215.934	1.6626	6	1.84984	132.7331	3.39009	0	3.3901	62.696	1.6891	0.0009	5	0.8288	0.381	2.1475	76.52454
54	250.2	3.59	2.94	0.46	250.236	1.4347	6	1.75984	133.0927	3.45663	0	3.4566	71.393	1.4547	0.0009	5	0.7941	0.3906	2.0479	91.0976
55	355.9	4.21	3.15	0.44	355.939	1.1828	6	1.60036	135.1178	3.52419	0	3.5242	99.999	1.1946	0.0006	6	0.7239	0.4185	1.8548	139.3956
56	601.8	5.95	3.77	0.35	601.846	0.9886	6	1.40982	137.28	3.59283	0	3.5928	166.51	0.9946	0.0005	6	0.6342	0.4606	1.6107	260.3992
57	557.9	6.26	4.74	0.19	557.958	1.122	6	1.47385	137.28	3.66147	0	3.6615	151.39	1.1294	0.0006	6	0.6674	0.4367	1.6892	228.7814
58	266.6	2.66	3.44	0.06	266.642	0.9976	6	1.62104	131.0538	3.727	0	3.727	70.543	1.0117	0.0009	6	0.7624	0.3829	1.9302	95.14751
59	344	3.55	3.25	-0.02	344.04	1.0319	6	1.56187	133.7872	3.79389	0	3.7939	89.683	1.0434	0.0007	6	0.7337	0.3919	1.8465	126.0073
60	297.4	0	3.06	-0.02	297.437	0	0	0	120.9	3.85434	0	3.8543	76.169	0	0.0008	0	1	0.2745	0	0

	CPT-2	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	30.1	0.12	0	-0.22	30.1	0.3987	5	2.17658	103.061	0.05153	0	0.0515	583.12	0.3994	0	6	0.4692	4.1289	1.6239	117.255
2	54.5	0.54	0	-0.53	54.5	0.9908	5	2.13768	115.5143	0.10929	0	0.1093	497.68	0.9928	0	6	0.5185	3.2447	1.7429	166.7895
3	40.3	0.37	0	-0.5	40.3	0.9181	5	2.22899	112.0118	0.16529	0	0.1653	242.81	0.9219	0	6	0.5679	2.8698	1.8594	108.8516
4	36.6	0.39	0	-0.42	36.6	1.0656	5	2.299	112.1621	0.22137	0	0.2214	164.33	1.0721	0	6	0.6107	2.5995	1.9672	89.37379
5	18.8	0.24	-0.1	-0.54	18.7988	1.2767	4	2.58625	106.9847	0.27487	0	0.2749	67.392	1.2956	-4E-04	5	0.7185	2.634	2.2445	46.11158
6	56.8	0.33	0	-0.68	56.8	0.581	6	1.9992	112.0117	0.33087	0	0.3309	170.67	0.5844	0	6	0.5405	1.8744	1.7703	100.0337
7	153.9	0.98	0.19	0.15	153.902	0.6368	6	1.66058	122.4071	0.39208	0	0.3921	391.53	0.6384	9E-05	6	0.445	1.5555	1.5157	225.665
8	134.4	1.19	0.27	0	134.403	0.8854	6	1.7968	123.4973	0.45383	0	0.4538	295.16	0.8884	0.0002	6	0.5043	1.5325	1.6623	193.9989
9	139.9	0.87	0.19	-0.1	139.902	0.6219	6	1.68718	121.3033	0.51448	0	0.5145	270.93	0.6242	0.0001	6	0.4734	1.4068	1.5735	185.3274
10	141.2	0.92	0.19	-0.02	141.202	0.6516	6	1.69624	121.7348	0.57534	0	0.5753	244.42	0.6542	0.0001	6	0.4861	1.3447	1.5987	178.7101
11	62	0.47	0.19	-0.02	62.0023	0.758	6	2.02646	114.813	0.63275	0	0.6328	96.989	0.7659	0.0002	6	0.6111	1.3692	1.9195	79.4103
12	20.9	0.65	0	0.02	20.9	3.1101	4	2.76794	114.5333	0.69002	0	0.69	29.289	3.2162	0	4	0.8963	1.467	2.6598	28.01895
13	22.6	0.32	-0.38	0.04	22.5954	1.4162	4	2.542	109.5383	0.74479	0	0.7448	29.338	1.4645	-0.001	5	0.822	1.3346	2.4576	27.56021
14	26.2	0.45	-0.57	0.02	26.193	1.718	4	2.53541	112.3932	0.80098	0	0.801	31.701	1.7722	-0.002	5	0.8302	1.26	2.4727	30.23745
15	25.7	0.71	-0.76	0.01	25.6907	2.7637	4	2.66584	115.6827	0.85882	0	0.8588	28.914	2.8592	-0.002	4	0.8904	1.2042	2.624	28.26011
16	22.6	1.2	-0.5	-0.02	22.5939	5.3112	3	2.89235	119.2094	0.91843	0	0.9184	23.601	5.5362	-0.002	3	0.9881	1.1501	2.8732	23.56076
17	45.3	0.66	-0.3	-0.02	45.2963	1.4571	5	2.30087	116.5315	0.97669	0	0.9767	45.377	1.4892	-5E-04	5	0.7697	1.0636	2.2928	44.54827
18	58.7	0.53	-0.29	0.02	58.6965	0.903	5	2.0883	115.5585	1.03447	0	1.0345	55.74	0.9192	-4E-04	5	0.6965	1.0159	2.0934	55.3595
19	62.1	0.68	-0.19	0.04	62.0977	1.0951	5	2.11687	117.5194	1.09323	0	1.0932	55.802	1.1147	-2E-04	5	0.7154	0.9769	2.1358	56.32287
20	68.8	0.64	-0.1	0.06	68.7988	0.9303	6	2.03918	117.3257	1.1519	0	1.1519	58.727	0.9461	-1E-04	5	0.6932	0.9428	2.0702	60.27664
21	85.6	0.55	0.1	0.08	85.6012	0.6425	6	1.8699	116.7498	1.21027	0	1.2103	69.729	0.6517	9E-05	6	0.6348	0.9182	1.9095	73.23545
22	66.1	1.41	0.19	0.08	66.1023	2.1331	5	2.28095	123.0077	1.27178	0	1.2718	50.976	2.1749	0.0002	5	0.8019	0.8629	2.3403	52.86862
23	73.5	1.07	0.19	0.08	73.5023	1.4557	5	2.13636	121.2476	1.3324	0	1.3324	54.165	1.4826	0.0002	5	0.7535	0.8406	2.2056	57.33216
24	85.5	1.37	0.19	0.13	85.5023	1.6023	5	2.11458	123.4248	1.39411	0	1.3941	60.331	1.6289	0.0002	5	0.7513	0.8129	2.192	64.61384
25	98.9	1.94	0.38	0.11	98.9047	1.9615	5	2.12975	126.3254	1.45727	0	1.4573	66.87	1.9908	0.0003	5	0.7631	0.7833	2.2148	72.13853
26	97.1	1.11	0.29	0.1	97.1036	1.1431	6	1.97622	122.1953	1.51837	0	1.5184	62.952	1.1613	0.0002	5	0.7113	0.7735	2.0722	69.87107
27	77	1.07	0.29	0.12	77.0036	1.3896	5	2.10788	121.3611	1.57905	0	1.5791	47.766	1.4186	0.0003	5	0.7722	0.7341	2.2246	52.32588
28	73.4	0.65	0.19	0.06	73.4023	0.8855	6	2.00385	117.5972	1.63785	0	1.6379	43.816	0.9057	0.0002	5	0.7402	0.7237	2.1332	49.08324
29	47.2	2.67	0.38	0.04	47.2047	5.6562	3	2.68426	126.8583	1.70128	0	1.7013	26.747	5.8677	0.0006	3	1	0.622	2.8508	26.74655
30	35.4	1.98	0.38	0.12	35.4047	5.5925	3	2.76701	123.9691	1.76326	0	1.7633	19.079	5.8856	0.0008	3	1	0.6001	2.9585	19.07903
31	36.3	2.13	0.38	0.21	36.3047	5.867	3	2.77423	124.5646	1.82555	0	1.8256	18.887	6.1777	0.0008	3	1	0.5796	2.976	18.887
32	58.7	2.2	0.38	0.23	58.7047	3.7476	4	2.4892	125.9734	1.88853	0	1.8885	30.085	3.8721	0.0005	4	0.9615	0.5729	2.6827	30.76274
33	80	1.21	0.38	0.27	80.0047	1.5124	5	2.11936	122.354	1.94971	0	1.9497	40.034	1.5502	0.0004	5	0.8194	0.6061	2.3022	44.70733
34	53.1	3.16	0.56	0.33	53.1069	5.9503	3	2.66625	128.3785	2.0139	0	2.0139	25.37	6.1848	0.0008	3	1	0.5254	2.8831	25.37016
35	52.9	3.13	0.67	0.37	52.9082	5.9159	3	2.66545	128.2996	2.07805	0	2.0781	24.461	6.1578	0.001	3	1	0.5092	2.8932	24.46051
36	52.2	3	0.76	0.48	52.2093	5.7461	3	2.65986	127.9568	2.14203	0	2.142	23.374	5.9919	0.0011	3	1	0.494	2.8992	23.37377
37	76.3	4.2	0.86	0.54	76.3105	5.5038	9	2.53822	131.3445	2.2077	0	2.2077	33.566	5.6678	0.0008	3	1	0.4793	2.7702	33.56562
38	40.2	2.59	0.95	0.56	40.2116	6.4409	3	2.77298	126.2447	2.27082	0	2.2708	16.708	6.8264	0.0018	3	1	0.466	3.0445	16.70796
39	55.2	3.46	1.05	0.59	55.2129	6.2667	3	2.67201	129.137	2.33539	0	2.3354	22.642	6.5434	0.0014	3	1	0.4531	2.9357	22.6418
40	63	3.62	1.15	0.59	63.0141	5.7448	4	2.60593	129.7901	2.40029	0	2.4003	25.253	5.9722	0.0014	3	1	0.4408	2.874	25.25273
41	47.9	3.17	1.15	0.58	47.9141	6.616	3	2.73036	128.1507	2.46436	0	2.4644	18.443	6.9747	0.0018	3	1	0.4294	3.0194	18.44279
42	33.4	1.92	1.24	0.58	33.4152	5.7459	3	2.79304	123.6029	2.52616	0	2.5262	12.228	6.2158	0.0029	3	1	0.4189	3.1195	12.22764
43	38.9	2.2	1.43	0.62	38.9175	5.653	3	2.74163	124.9708	2.58865	0	2.5887	14.034	6.0558	0.0028	3	1	0.4088	3.0666	14.03391
44	38.6	2.49	1.43	0.54	38.6175	6.4479	3	2.78532	125.8579	2.65158	0	2.6516	13.564	6.9232	0.0029	3	1	0.3991	3.116	13.56397
45	48.2	2.6	1.62	0.48	48.2198	5.392	4	2.66273	126.7158	2.71494	0	2.7149	16.761	5.7137	0.0026	3	1	0.3897	2.9919	16.76095
46	41.3	2.44	1.72	0.49	41.3211	5.905	3	2.73737	125.8745	2.77787	0	2.7779	13.875	6.3306	0.0032	3	1	0.3809	3.083	13.87507
47	41.8	2.67	1.81	0.56	41.8222	6.3842	3	2.75856	126.563	2.84115	0	2.8412	13.72	6.8495	0.0033	3	1	0.3724	3.1092	13.72013
48	151.1	3.4	1.95	0.58	151.124	2.2498	5	2.04973	131.4649	2.90689	0	2.9069	50.988	2.2939	0.001	5	0.874	0.4134	2.3266	57.9132
49	529.4	4.05	2.38	0.58	529.429	0.765	6	1.34612	135.8027	2.97479	0	2.9748	176.97	0.7693	0.0003	6	0.5664	0.5568	1.5097	277.0538
50	593.8	5.93	3.06	0.68	593.837	0.9986	6	1.41653	137.28	3.04343	0	3.0434	194.12	1.0037	0.0004	6	0.5949	0.5334	1.5762	297.8253
51	523.5	5.94	3.53	0.71	523.543	1.1346	6	1.49222	137.28	3.11207	0	3.1121	167.23	1.1414	0.0005	6	0.6337	0.5048	1.6696	248.2763
52	498.4	4.41	3.63	0.77	498.444	0.8848	6	1.41299	136.2787	3.18021	0	3.1802	155.73	0.8904	0.0005	6	0.6105	0.5108	1.5998	239.0813
53	463.4	3.66	3.01	0.83	463.437	0.7898	6	1.39114	134.7371	3.24758	0	3.2476	141.7	0.7953	0.0005	6	0.6103	0.5044	1.5906	219.3753
54	483.7	4.87	2.48	0.81	483.73	1.0068	6	1.46681	136.9316	3.31604	0	3.316	144.88	1.0137	0.0004	6	0.6431	0.4797	1.6686	217.7922
55	635.5	6.43	2.01	0.71	635.525	1.0118	6	1.40672	137.28	3.38468	0	3.3847	186.76	1.0172	0.0002	6	0.6148	0.4893	1.5858	292.2933
56	383.8	4.49	2.1	0.56	383.826	1.1698	6	1.57736	135.7729	3.45257	0	3.4526	110.17	1.1804	0.0004	6	0.7059	0.4339	1.8165	155.9924
57	401.5	4.24	-0.76	0.56	401.491	1.0561	6	1.52983	135.4635	3.5203	0	3.5203	113.05	1.0654	-1E-04	6	0.6915	0.4355	1.77	163.8027
58	259.9	4.53	-0.76	0.58	259.891	1.743	6	1.81694	134.8868	3.58774	0	3.5877	71.438	1.7674	-2E-04	5	0.826	0.3648	2.1154	88.3514
59	106.9	4.91	-0.48	0.62	106.894	4.5933	9	2.38544	133.3093	3.6544	0	3.6544	28.251	4.7559	-3E-04	3	1	0.2895	2.7705	28.25082
60	337.2	8.07	-0.16	0.73	337.198	2.3933	8	1.86847	137.28	3.72304	0	3.723	89.571	2.42	-3E-05	5	0.8459	0.345	2.1512	108.7351
61	201.1	3.88	-0.1	0.77	201.099	1.9294	6	1.91965	133.1279	3.7896	0	3.7896	52.066	1.9665	-4E-05	5	0.8954	0.3191	2.2729	59.50015
62	166.2	7.84	0.19	0.82	166.202	4.7171	9	2.28228	137.28	3.85824	0	3.8582	42.077	4.8293	8E-05	4	1	0.2743	2.6519	42.07722
63	106.3	5.35	0.19	0.77	106.302	5.0328	9	2.41834	133.9237	3.9252	0	3.9252	26.082	5.2258	0.0001	3	1	0.2696	2.8238	26.08199
64	333.7	5.42	0.21	0.77	333.703	1.6242	6	1.72913	136.809	3.99361	0	3.9936	82.559	1.6439	5E-05	5	0.816	0.3383	2.0386	105.4122
65	441.5	6.09	0.48	0.79	441.506	1.3794	6	1.60329	137.28	4.06225	0	4.0623	107.69	1.3922	8E-05	6	0.7599	0.3598	1.8824	148.7399
66	402.5	5.74	0.76	0.83	402.509	1.4261	6	1.63704	137.28	4.13089	0	4.1309	96.439	1.4408	0.0001	6	0.7831	0.3442	1.9347	129.5872
67	409.6	5.49	0.38	0.83	409.605	1.3403	6	1.61034	137.28	4.19953	0	4.1995	96.536	1.3542	7E-05	6	0.7777	0.3423	1.912	131.15
68	390.9	6.38	0.49	0.87	390.906	1.6321	6	1.69328	137.28	4.26817	0	4.2682	90.586	1.6501	9E-05	6	0.8175	0.3198	2.0083	116.8438

69	466.6	6.22	0.86	0.83	466.611	1.333	6	1.57802	137.28	4.33681	0	4.3368	106.59	1.3455	0.0001	6	0.7699	0.3376	1.8743	147.4728
70	545.9	0	-0.12	0.75	545.899	0	0	0	120.9	4.39726	0	4.3973	123.15	0	-2E-05	0	1	0.2406	0	0

	CPT-3	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	122.1	1	0.38	0.01	122.105	0.819	6	1.80726	121.9904	0.061	0	0.061	2000.9	0.8194	0.0002	6	0.4047	3.1733	1.4514	366.0108
2	139.6	1.45	1.03	0.71	139.613	1.0386	6	1.83036	125.036	0.12351	0	0.1235	1129.3	1.0395	0.0005	6	0.4472	2.6131	1.5492	344.4848
3	58.1	0.72	1.24	0.8	58.1152	1.2389	5	2.17205	117.7759	0.1824	0	0.1824	317.61	1.2428	0.0015	6	0.5641	2.6958	1.8494	147.5956
4	28.3	0.41	0.95	0.85	28.3116	1.4482	5	2.46551	111.9018	0.23835	0	0.2384	117.78	1.4605	0.0024	5	0.6713	2.7196	2.1247	72.1559
5	20.5	0.16	0.49	0.77	20.506	0.7803	5	2.4497	104.2299	0.29047	0	0.2905	69.597	0.7915	0.0018	5	0.6748	2.3925	2.1277	45.70903
6	78.9	0.43	0.76	0.64	78.9093	0.5449	6	1.86179	114.7503	0.34784	0	0.3478	225.85	0.5473	0.0007	6	0.4999	1.7439	1.6619	129.4809
7	96.5	0.59	0.76	0.6	96.5093	0.6113	6	1.81455	117.556	0.40662	0	0.4066	236.35	0.6139	0.0006	6	0.4966	1.6079	1.6495	146.0351
8	138.7	0.84	1.13	0.52	138.714	0.6056	6	1.68325	121.0258	0.46713	0	0.4671	295.95	0.6076	0.0006	6	0.4643	1.4617	1.556	190.9769
9	141.7	1.17	1.43	0.62	141.718	0.8256	6	1.75959	123.5026	0.52888	0	0.5289	266.96	0.8287	0.0007	6	0.503	1.4174	1.6492	189.132
10	118.9	0.86	1.72	0.73	118.921	0.7232	6	1.783	120.8224	0.5893	0	0.5893	200.8	0.7268	0.0011	6	0.5188	1.3548	1.683	151.5166
11	158	0.86	1.81	0.77	158.022	0.5442	6	1.61017	121.5158	0.65005	0	0.6501	242.09	0.5465	0.0008	6	0.4653	1.2544	1.5346	186.5677
12	484.8	3.56	2.68	0.77	484.833	0.7343	6	1.35406	134.6445	0.71738	0	0.7174	674.84	0.7354	0.0004	7	0.3857	1.1617	1.3171	531.5154
13	477.1	4.63	0.72	1.21	477.109	0.9704	6	1.45687	136.5282	0.78564	0	0.7856	606.29	0.972	0.0001	6	0.431	1.1369	1.4274	511.7958
14	191.3	1.56	-0.76	2.09	191.291	0.8155	6	1.65865	126.3391	0.84881	0	0.8488	224.36	0.8192	-3E-04	6	0.5096	1.1189	1.6261	201.3788
15	47.5	0.92	-2.67	2.34	47.4673	1.9382	5	2.36175	119.0759	0.90835	0	0.9084	51.257	1.976	-0.004	5	0.7822	1.1268	2.3339	49.58126
16	44.9	0.68	-2.48	2.28	44.8696	1.5155	5	2.31444	116.7268	0.96671	0	0.9667	45.415	1.5489	-0.004	5	0.7734	1.0724	2.3036	44.49452
17	36.1	0.51	-2.39	2.3	36.0708	1.4139	5	2.37307	114.0895	1.02376	0	1.0238	34.234	1.4552	-0.005	5	0.8056	1.0269	2.3811	34.01478
18	32.2	0.56	-2.77	2.34	32.1661	1.741	5	2.46629	114.4944	1.081	0	1.081	28.756	1.8015	-0.006	5	0.8511	0.982	2.4934	28.84762
19	37.3	0.76	-2.58	2.41	37.2684	2.0393	5	2.45722	117.088	1.13955	0	1.1396	31.705	2.1036	-0.005	4	0.8555	0.9385	2.4978	32.04609
20	42.1	0.7	-2.67	2.41	42.0673	1.664	5	2.36136	116.7816	1.19794	0	1.1979	34.116	1.7128	-0.005	5	0.8265	0.9025	2.4144	34.85898
21	45.1	0.77	-2.48	2.41	45.0696	1.7085	5	2.34479	117.6472	1.25676	0	1.2568	34.862	1.7575	-0.004	5	0.828	0.8672	2.4109	35.90872
22	72.3	2.4	-2	2.26	72.2755	3.3206	5	2.3889	127.1173	1.32032	0	1.3203	53.741	3.3824	-0.002	4	0.8485	0.8287	2.4568	55.57364
23	71.9	1.63	-1.73	2.33	71.8788	2.2677	5	2.27273	124.273	1.38246	0	1.3825	50.994	2.3122	-0.002	5	0.8122	0.8048	2.3535	53.61931
24	71.1	1.62	-1.72	2.61	71.079	2.2792	5	2.27775	124.2006	1.44456	0	1.4446	48.205	2.3264	-0.002	5	0.8222	0.7742	2.3718	50.94886
25	50.7	2.18	-1.43	2.65	50.6825	4.3013	4	2.57658	125.5482	1.50733	0	1.5073	32.624	4.4331	-0.002	4	0.9495	0.7146	2.6985	33.21281
26	37.4	1.93	-1.05	2.68	37.3872	5.1622	3	2.72566	123.9148	1.56929	0	1.5693	22.824	5.3884	-0.002	3	1	0.6743	2.8753	22.82428
27	37.5	1.7	-0.76	2.65	37.4907	4.5345	4	2.68516	122.9931	1.63078	0	1.6308	21.989	4.7407	-0.002	3	1	0.6488	2.8499	21.98936
28	75.8	0.82	-0.86	2.76	75.7895	1.0819	6	2.04475	119.3752	1.69047	0	1.6905	43.833	1.1066	-8E-04	5	0.7616	0.6999	2.1829	49.01282
29	68.7	0.5	-0.83	2.88	68.6898	0.7279	6	1.97956	115.5156	1.74823	0	1.7482	38.291	0.7469	-9E-04	5	0.7453	0.6878	2.1329	43.51459
30	101.8	2.4	0.08	2.99	101.801	2.3575	5	2.17863	127.9527	1.81221	0	1.8122	55.175	2.4003	6E-05	5	0.8215	0.6428	2.3249	60.73811
31	126.4	1.07	-0.29	3.11	126.396	0.8465	6	1.80471	122.5698	1.87349	0	1.8735	66.466	0.8593	-2E-04	6	0.6805	0.6779	1.9471	79.77645
32	179	1.7	0	3.09	179	0.9497	6	1.72511	126.806	1.93689	0	1.9369	91.416	0.9601	0	6	0.6497	0.6752	1.8584	112.9801
33	328.2	2.66	0.73	2.43	328.209	0.8105	6	1.49374	131.5605	2.00267	0	2.0027	162.89	0.8154	0.0002	6	0.5554	0.7016	1.6025	216.3113
34	269.5	2.55	1.17	2.3	269.514	0.9462	6	1.60072	130.7709	2.06806	0	2.0681	129.32	0.9535	0.0003	6	0.6062	0.6662	1.7278	168.378
35	229	1.23	1.34	2.4	229.016	0.5371	6	1.47988	125.0391	2.13058	0	2.1306	106.49	0.5421	0.0004	6	0.569	0.6715	1.622	143.9882
36	259.9	1.66	1.43	2.57	259.918	0.6387	6	1.48893	127.5415	2.19435	0	2.1944	117.45	0.6441	0.0004	6	0.5755	0.6572	1.6312	160.0747
37	321.7	1.9	1.72	2.81	321.721	0.5906	6	1.39889	129.0498	2.25887	0	2.2589	141.43	0.5948	0.0004	6	0.5417	0.6631	1.5343	200.206
38	247.2	1.43	1.91	3.28	247.223	0.5784	6	1.4758	126.3281	2.32204	0	2.322	105.47	0.5839	0.0006	6	0.5833	0.6323	1.6355	146.3395
39	241.6	2.78	1.72	3.67	241.621	1.1506	6	1.69586	131.1363	2.38761	0	2.3876	100.2	1.162	0.0005	6	0.6744	0.5776	1.8669	130.5993
40	253.3	3.15	1.91	3.8	253.323	1.2435	6	1.70828	132.1659	2.45369	0	2.4537	102.24	1.2556	0.0006	6	0.6839	0.5626	1.8837	133.381
41	251.9	2.85	1.94	3.9	251.924	1.1313	6	1.67846	131.4201	2.5194	0	2.5194	98.994	1.1427	0.0006	6	0.6786	0.5551	1.8613	130.8335
42	56.7	1.57	1.43	4.02	56.7175	2.7681	5	2.40692	123.4208	2.58111	0	2.5811	20.974	2.9001	0.0019	4	1	0.4099	2.7287	20.97407
43	62.7	1.3	1.34	4.17	62.7164	2.0728	5	2.2894	122.2852	2.64225	0	2.6423	22.736	2.164	0.0016	4	0.9715	0.4111	2.6148	23.33761
44	74.4	1.73	0.97	4.38	74.4119	2.3249	5	2.26946	124.7931	2.70465	0	2.7047	26.513	2.4126	0.001	4	0.9642	0.4046	2.5878	27.41733
45	72	2.81	0.67	4.63	72.0082	3.9023	4	2.44155	128.2622	2.76878	0	2.7688	25.007	4.0584	0.0007	4	1	0.3822	2.7633	25.00719
46	80.7	3.67	0.86	4.93	80.7105	4.5471	4	2.45894	130.4942	2.83403	0	2.834	27.479	4.7126	0.0008	3	1	0.3734	2.7766	27.47909
47	98.5	3.83	1.06	5.16	98.513	3.8878	4	2.3512	131.2926	2.89967	0	2.8997	32.974	4.0057	0.0008	4	1	0.3649	2.6705	32.97381
48	80.8	3.86	1.15	5.58	80.8141	4.7764	9	2.47493	130.8666	2.96511	0	2.9651	26.255	4.9583	0.0011	3	1	0.3569	2.8061	26.25502
49	299.2	3.86	1.58	6.09	299.219	1.29	6	1.67568	134.0593	3.03214	0	3.0321	97.683	1.3032	0.0004	6	0.7174	0.4699	1.8993	131.53
50	139.3	2.8	1.34	6.22	139.316	2.0098	5	2.03566	129.8458	3.09706	0	3.0971	43.983	2.0555	0.0007	5	0.8903	0.3844	2.3457	49.48285
51	59.4	2.92	1.62	6.2	59.4198	4.9142	4	2.57179	128.0745	3.1611	0	3.1611	17.797	5.1903	0.0021	3	1	0.3347	2.9448	17.79722
52	53.2	2.93	3.36	6.28	53.2411	5.5033	4	2.64024	127.8318	3.22501	0	3.225	15.509	5.8581	0.0048	3	1	0.3281	3.0244	15.50881
53	477.4	3.61	3.6	6.24	477.444	0.7561	6	1.36825	134.7091	3.29237	0	3.2924	144.02	0.7614	0.0006	6	0.604	0.5038	1.5684	225.7542
54	423.5	3.48	3.44	6.37	423.542	0.8216	6	1.42839	134.1485	3.35944	0	3.3594	125.08	0.8282	0.0006	6	0.6372	0.479	1.6472	190.1954
55	493.9	4.84	3.62	6.43	493.944	0.9799	6	1.452	136.9373	3.42791	0	3.4279	143.09	0.9867	0.0005	6	0.6456	0.4682	1.661	217.0472
56	186.9	3.09	3.25	6.89	186.94	1.6529	6	1.88783	131.2841	3.49355	0	3.4936	52.51	1.6844	0.0013	5	0.8592	0.3584	2.2144	62.1285
57	284.2	5.67	3.82	7.11	284.247	1.9948	6	1.84212	136.7477	3.56193	0	3.5619	78.801	2.0201	0.001	5	0.8294	0.3654	2.1278	96.92843
58	354.9	4.89	3.63	7.09	354.944	1.3777	6	1.65503	136.2065	3.63003	0	3.63	96.78	1.3919	0.0007	6	0.7539	0.3948	1.9206	131.0793
59	199.6	5.05	3.44	7.13	199.642	2.5295	5	2.01508	135.0386	3.69755	0	3.6976	52.993	2.5773	0.0013	5	0.9252	0.3142	2.3597	58.1893
60	170.5	4.55	2.53	7.18	170.531	2.6681	5	2.07472	133.8913	3.76449	0	3.7645	44.3	2.7284	0.0011	5	0.9612	0.2953	2.4474	46.53789
61	179.9	6.49	3.05	7.26	179.937	3.6068	8	2.16663	136.6208	3.83281	0	3.8328	45.947	3.6853	0.0013	4	0.9994	0.2763	2.5413	45.97956
62	241.4	3.22	2.29	7.32	241.428	1.3337	6	1.74504	132.2095	3.89891	0	3.8989	60.922	1.3556	0.0007	5	0.8298	0.3389	2.0863	76.06809
63	265.6	4.18	2.2	7.42	265.627	1.5736	6	1.77569	134.3517	3.96609	0	3.9661	65.975	1.5975	0.0006	5	0.8427	0.3284	2.1121	81.21778
64	337.8	4.18	1.91	7.51	337.823	1.2373	6	1.62956	134.9381	4.03355	0	4.0336	82.753	1.2523	0.0004	6	0.7808	0.3517	1.9408	110.9561
65	402.9	4.47	2	7.51	402.924	1.1094	6	1.54638	135.8587	4.10148	0	4.1015	97.239	1.1208	0.0004	6	0.746	0.3639	1.8406	137.1768
66	381.8	3.74	2.07	7.55	381.825	0.9795	6	1.51641	134.4229	4.1687	0	4.1687	90.593	0.9903	0.0004	6	0.7431	0.361	1.8241	128.8562
67	569.4	3.94	1.53	7.71	569.419	0.6919	7	1.29229	135.7788	4.23658	0	4.2366	133.41	0.6971	0.0002	6	0.6427	0.41	1.5513	218.9963
68	400.3	4.63	1.53	7.76	400.319	1.1566	6	1.56283	136.1002	4.30463	0	4.3046	91.997	1.1692	0.0003	6	0.7696	0.3396	1.8773	127.1111

69	522.7	7.16	2.58	7.82	522.732	1.3697	6	1.56302	137.28	4.37327	0	4.3733	118.53	1.3813	0.0004	6	0.7611	0.3396	1.8467	166.367
70	577.6	5.58	2.42	8.08	577.63	0.966	6	1.41036	137.28	4.44191	0	4.4419	129.04	0.9735	0.0003	6	0.703	0.3647	1.6849	197.5836

	CPT-4	In situ data										Basic output data								
Depth (ft)	qc (tsf)	fs (tsf)	u (psi)	Other	qt (tsf)	Rf(%)	SBT	Ic SBT	ã (pcf)	ó,v (tsf)	u0 (tsf)	ó',vo (tsf)	Qt1	Fr (%)	Bq	SBTn	n	Cn	Ic	Qtn
1	48.4	0.49	0	0.35	48.4	1.0124	5	2.18551	114.5139	0.05726	0	0.0573	844.31	1.0136	0	6	0.4984	2.2784	1.7008	195.4718
2	82.8	0.54	0	0.39	82.8	0.6522	6	1.88554	116.5344	0.11552	0	0.1155	715.73	0.6531	0	6	0.444	2.6734	1.5472	208.9113
3	57	0.64	0	0.57	57	1.1228	5	2.15328	116.8669	0.17396	0	0.174	326.67	1.1262	0	6	0.5537	2.7175	1.8227	145.945
4	51.4	0.76	0.1	0.72	51.4012	1.4786	5	2.26113	117.8721	0.23289	0	0.2329	219.71	1.4853	0.0001	6	0.6095	2.5157	1.9634	121.6565
5	27.8	0.37	0	0.68	27.8	1.3309	5	2.45178	111.1062	0.28845	0	0.2885	95.378	1.3449	0	5	0.6818	2.4258	2.1467	63.07315
6	44.7	0.33	0.1	0.64	44.7012	0.7382	5	2.14133	111.4275	0.34416	0	0.3442	128.88	0.744	0.0002	6	0.5916	1.9434	1.9031	81.47068
7	79.7	0.44	0.1	0.71	79.7012	0.5521	6	1.86099	114.9429	0.40163	0	0.4016	197.44	0.5549	9E-05	6	0.5094	1.638	1.6842	122.7623
8	50.9	0.71	0.19	0.79	50.9023	1.3948	5	2.24903	117.3504	0.46031	0	0.4603	109.58	1.4076	0.0003	5	0.66	1.7322	2.07	82.57503
9	334.2	2.6	0.38	2.19	334.205	0.778	6	1.47517	131.4377	0.52603	0	0.526	634.34	0.7792	8E-05	6	0.4073	1.3293	1.3979	419.1897
10	279.3	1.67	0.67	2.74	279.308	0.5979	6	1.44655	127.7609	0.58991	0	0.5899	472.48	0.5992	0.0002	6	0.4019	1.2647	1.3757	333.1229
11	257	1.18	0.67	2.74	257.008	0.4591	6	1.3979	125.0167	0.65241	0	0.6524	392.93	0.4603	0.0002	6	0.3901	1.2076	1.3369	292.5681
12	39.7	0.82	0.38	2.63	39.7047	2.0653	5	2.43922	117.7984	0.71131	0	0.7113	54.819	2.1029	0.0007	5	0.778	1.362	2.3475	50.19269
13	26.4	0.81	-0.2	2.61	26.3976	3.0685	4	2.68529	116.713	0.76967	0	0.7697	33.297	3.1606	-6E-04	4	0.8812	1.3237	2.6106	32.06155
14	27.9	1.04	-0.67	2.68	27.8918	3.7287	4	2.72182	118.6761	0.82901	0	0.829	32.645	3.8429	-0.002	4	0.9061	1.2474	2.6688	31.9051
15	32.4	1.05	-0.76	2.74	32.3907	3.2417	4	2.63292	119.1109	0.88856	0	0.8886	35.453	3.3331	-0.002	4	0.8826	1.1666	2.5999	34.73348
16	40.7	0.7	-1.28	2.84	40.6843	1.7206	5	2.38172	116.7001	0.94691	0	0.9469	41.965	1.7616	-0.002	5	0.7962	1.0924	2.3658	41.0261
17	39.8	0.61	-1.34	2.86	39.7836	1.5333	5	2.35927	115.6385	1.00473	0	1.0047	38.596	1.573	-0.002	5	0.7968	1.0421	2.3605	38.19241
18	40.2	0.64	-1.15	2.88	40.1859	1.5926	5	2.36563	116.0144	1.06274	0	1.0627	36.813	1.6359	-0.002	5	0.8082	0.9965	2.3832	36.84435
19	39.2	0.69	-1.34	2.93	39.1836	1.7609	5	2.4008	116.5032	1.12099	0	1.121	33.954	1.8128	-0.003	5	0.8307	0.9532	2.435	34.28786
20	30.8	0.84	-1.34	2.95	30.7836	2.7287	4	2.60136	117.354	1.17967	0	1.1797	25.095	2.8375	-0.003	4	0.9188	0.9049	2.6588	25.31776
21	34.6	1.02	-1.43	2.92	34.5825	2.9495	4	2.58455	119.0585	1.2392	0	1.2392	26.907	3.0591	-0.003	4	0.9201	0.8647	2.655	27.24882
22	44.4	1.27	-1.53	2.95	44.3813	2.8616	4	2.49472	121.2709	1.29983	0	1.2998	33.144	2.9479	-0.003	4	0.8916	0.8324	2.5725	33.89126
23	53.5	1.41	-1.89	3.14	53.4769	2.6367	5	2.41104	122.4908	1.36108	0	1.3611	38.29	2.7055	-0.003	4	0.8658	0.8041	2.497	39.60585
24	53.8	1.45	-3.1	3.33	53.7621	2.6971	5	2.41606	122.7084	1.42243	0	1.4224	36.796	2.7704	-0.004	4	0.8759	0.7717	2.5159	38.17185
25	55.9	1.54	-3.72	3.42	55.8545	2.7572	5	2.41056	123.2422	1.48405	0	1.4841	36.636	2.8324	-0.005	4	0.8814	0.7422	2.5225	38.13604
26	37	1.3	-3.72	3.36	36.9545	3.5178	4	2.61391	120.9951	1.54455	0	1.5446	22.926	3.6713	-0.008	4	0.9747	0.6917	2.7602	23.14628
27	22.5	1.14	-3.53	3.19	22.4568	5.0764	3	2.88115	118.8193	1.60396	0	1.604	13.001	5.4669	-0.012	3	1	0.6597	3.0633	13.00083
28	13	0.85	-3.53	3.07	12.9568	6.5603	3	3.13419	115.33	1.66163	0	1.6616	6.7977	7.5253	-0.023	3	1	0.6368	3.3694	6.79766
29	33.1	1.6	-3.15	3.11	33.0614	4.8395	3	2.74403	122.2429	1.72275	0	1.7228	18.191	5.1055	-0.007	3	1	0.6142	2.9329	18.19111
30	45.2	1.38	-3.06	3.13	45.1626	3.0556	4	2.5084	121.9213	1.78371	0	1.7837	24.319	3.1813	-0.005	4	0.9621	0.6051	2.6972	24.80593
31	34.6	1.98	-2.93	3.22	34.5641	5.7285	3	2.78176	123.9105	1.84566	0	1.8457	17.727	6.0516	-0.006	3	1	0.5733	2.9903	17.72721
32	45.6	2.11	-2.86	3.36	45.565	4.6308	4	2.63177	125.0497	1.90819	0	1.9082	22.879	4.8332	-0.005	3	1	0.5545	2.8426	22.87866
33	63.6	2.73	-2.58	3.48	63.5684	4.2946	4	2.50874	127.7468	1.97206	0	1.9721	31.234	4.4321	-0.003	4	0.9771	0.5443	2.7133	31.68373
34	77.6	3.17	-2.48	3.51	77.5696	4.0867	4	2.43504	129.3257	2.03673	0	2.0367	37.085	4.1969	-0.002	4	0.9515	0.5363	2.6376	38.28345
35	51	3.16	-2.39	3.53	50.9708	6.1996	3	2.69142	128.2784	2.10086	0	2.1009	23.262	6.4662	-0.004	3	1	0.5037	2.9236	23.2618
36	103.3	3.49	-2.2	3.55	103.273	3.3794	5	2.29138	130.7274	2.16623	0	2.1662	46.674	3.4518	-0.002	4	0.9038	0.5233	2.4954	50.00673
37	123.7	2.55	-2.12	3.55	123.674	2.0619	5	2.07853	128.871	2.23066	0	2.2307	54.443	2.0997	-0.001	5	0.8235	0.5411	2.2782	62.10107
38	201.3	2.35	-1.52	3.55	201.281	1.1675	6	1.75353	129.4613	2.29539	0	2.2954	86.689	1.181	-6E-04	6	0.6927	0.5848	1.9264	109.9841
39	57	3.25	0.38	3.61	57.0047	5.7013	4	2.63197	128.7568	2.35977	0	2.3598	23.157	5.9475	0.0005	3	1	0.4484	2.9	23.15684
40	45.5	2.62	0.38	3.61	45.5047	5.7577	3	2.70074	126.6305	2.42309	0	2.4231	17.78	6.0815	0.0006	3	1	0.4367	2.9908	17.77961
41	67.9	3.22	0.38	3.61	67.9047	4.7419	4	2.5217	129.1157	2.48765	0	2.4877	26.297	4.9223	0.0004	3	1	0.4254	2.8034	26.29676
42	96.9	5.06	0.19	3.65	96.9023	5.2218	9	2.45556	133.2901	2.55429	0	2.5543	36.937	5.3631	0.0001	3	1	0.4143	2.724	36.93708
43	126.3	3.45	0.19	3.67	126.302	2.7315	5	2.16436	131.1341	2.61986	0	2.6199	47.21	2.7894	0.0001	5	0.8957	0.4439	2.4194	51.8907
44	134.2	3.44	0.22	3.69	134.203	2.5633	5	2.12627	131.2608	2.68549	0	2.6855	48.973	2.6156	0.0001	5	0.8857	0.4383	2.3849	54.47498
45	282.2	2.59	0.25	3.71	282.203	0.9178	6	1.57757	130.997	2.75099	0	2.751	101.58	0.9268	6E-05	6	0.6571	0.5337	1.7759	140.963
46	395.7	3.6	0.54	3.84	395.707	0.9098	6	1.48147	134.2308	2.8181	0	2.8181	139.42	0.9163	0.0001	6	0.6152	0.5474	1.6575	203.2422
47	314.9	2.7	0.86	3.82	314.911	0.8574	6	1.52398	131.5688	2.88389	0	2.8839	108.2	0.8653	0.0002	6	0.6446	0.524	1.7263	154.5168
48	389.1	5.11	0.95	3.8	389.112	1.3133	6	1.61531	136.7527	2.95226	0	2.9523	130.8	1.3233	0.0002	6	0.6783	0.4986	1.8067	181.9574
49	309.8	3.86	0.95	3.88	309.812	1.2459	6	1.65451	134.1442	3.01933	0	3.0193	101.61	1.2582	0.0002	6	0.7069	0.4765	1.8734	138.1629
50	566.3	4.94	1.32	3.88	566.316	0.8723	6	1.37729	137.28	3.08797	0	3.088	182.39	0.8771	0.0002	6	0.5849	0.5345	1.5443	284.507
51	519.6	6.97	0.76	3.92	519.609	1.3414	6	1.55644	137.28	3.15661	0	3.1566	163.61	1.3496	0.0001	6	0.6622	0.4849	1.7389	236.6895
52	458.7	5.02	0.86	4.04	458.711	1.0944	6	1.50976	137.024	3.22513	0	3.2251	141.23	1.1021	0.0001	6	0.6543	0.4823	1.7094	207.6144
53	335	5.31	0.57	4.08	335.007	1.585	6	1.71942	136.6685	3.29346	0	3.2935	100.72	1.6008	0.0001	6	0.7524	0.4256	1.9589	133.4096
54	63.4	3.1	-0.38	4.11	63.3954	4.89	4	2.55145	128.6702	3.3578	0	3.3578	17.88	5.1634	-5E-04	3	1	0.3151	2.9418	17.88005
55	60.4	3.08	-1.05	4.07	60.3872	5.1004	4	2.57916	128.5042	3.42205	0	3.4221	16.646	5.4068	-0.001	3	1	0.3092	2.9783	16.64649
56	169.7	4.05	-1.43	4.04	169.683	2.3868	5	2.03789	133.0274	3.48856	0	3.4886	47.64	2.4369	-6E-04	5	0.9219	0.3329	2.377	52.29035
57	160.3	4.16	-1.67	4.11	160.28	2.5955	5	2.08179	133.0844	3.5551	0	3.5551	44.084	2.6543	-8E-04	5	0.9472	0.3173	2.4362	46.99735
58	103.3	4.78	-1.57	4.09	103.281	4.6282	9	2.39722	133.0291	3.62162	0	3.6216	27.518	4.7964	-0.001	3	1	0.2922	2.7814	27.51785
59	188.3	4.24	-1.62	4.09	188.28	2.252	5	1.99015	133.6165	3.68843	0	3.6884	50.046	2.297	-6E-04	5	0.9161	0.3185	2.3401	55.57151
60	238.8	5.7	-1.45	4.21	238.782	2.3871	6	1.94932	136.3612	3.75661	0	3.7566	62.563	2.4253	-4E-04	5	0.8956	0.3215	2.2776	71.41373
61	193.4	4.31	-1.43	4.36	193.383	2.2287	6	1.97948	133.8016	3.82351	0	3.8235	49.577	2.2737	-5E-04	5	0.9233	0.3054	2.3421	54.71213
62	161.1	5.05	-1.43	4.48	161.083	3.135	5	2.14548	134.5152	3.89077	0	3.8908	40.401	3.2126	-7E-04	4	1	0.272	2.5407	40.40123
63	134.7	4.31	-1.43	4.54	134.683	3.2001	5	2.2	132.9192	3.95723	0	3.9572	33.035	3.297	-8E-04	4	1	0.2674	2.613	33.03458
64	65	3.55	-1.81	4.6	64.9779	5.4634	4	2.5807	129.7221	4.02209	0	4.0221	15.155	5.8239	-0.002	3	1	0.2631	3.0303	15.15526
65	82.8	3.45	-1.43	4.64	82.7825	4.1676	4	2.42297	130.1037	4.08714	0	4.0871	19.254	4.384	-0.001	3	1	0.2589	2.871	19.25439
66	146.3	3.18	-1.64	4.71	146.28	2.1739	5	2.04748	130.8959	4.15259	0	4.1526	34.226	2.2374	-8E-04	4	0.9957	0.2563	2.4902	34.42631
67	120.5	3.98	-1.43	4.75	120.483	3.3034	5	2.24104	132.0647	4.21862	0	4.2186	27.56	3.4233	-9E-04	4	1	0.2508	2.6829	27.5597
68	44.8	2.66	-1.43	4.75	44.7825	5.9398	3	2.71539	126.7024	4.28197	0	4.282	9.4584	6.5678	-0.003	3	1	0.2471	3.2206	9.45839

69	90.2	3.87	-1.34	4.75	90.1836	4.2913	4	2.4087	131.1531	4.34755	0	4.3476	19.744	4.5086	-0.001	3	1	0.2434	2.8707	19.74356
70	141.9	5.56	-1.43	4.81	141.883	3.9187	8	2.25612	134.9096	4.415	0	4.415	31.136	4.0446	-8E-04	4	1	0.2397	2.6916	31.13646

Presented below is a list of formulas used for the estimation of various soil properties. The formulas are presented in SI unit system and assume that all components are expressed in the same units.

:: Unit Weight, g (kN/m³) ::

$$g = g_w \cdot \left(0.27 \cdot \log(R_f) + 0.36 \cdot \log(\frac{q_t}{p_a}) + 1.236\right)$$

where g_w = water unit weight

:: Permeability, k (m/s) ::

$I_c < 3.27$ and $I_c > 1.00$ then $k = 10^{0.952-3.04 \cdot I_c}$

$I_c \leq 4.00$ and $I_c > 3.27$ then $k = 10^{-4.52-1.37 \cdot I_c}$

:: N_{SPT} (blows per 30 cm) ::

$$N_{60} = \left(\frac{q_c}{P_a}\right) \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

$$N_{1(60)} = Q_{tn} \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

:: Young's Modulus, Es (MPa) ::

$(q_t - \sigma_v) \cdot 0.015 \cdot 10^{0.55 \cdot I_c + 1.68}$

(applicable only to $I_c < I_{c\_cutoff}$)

:: Relative Density, Dr (%) ::

$100 \cdot \sqrt{\frac{Q_{tn}}{k_{DR}}}$ (applicable only to SBT_n: 5, 6, 7 and 8 or $I_c < I_{c\_cutoff}$)

:: State Parameter, ψ ::

$\psi = 0.56 - 0.33 \cdot \log(Q_{tn,cs})$

:: Peak drained friction angle, φ (°) ::

$\varphi = 17.60 + 11 \cdot \log(Q_{tn})$

(applicable only to SBT_n: 5, 6, 7 and 8)

:: 1-D constrained modulus, M (MPa) ::

If $I_c > 2.20$

$\alpha = 14$ for $Q_{tn} > 14$

$\alpha = Q_{tn}$ for $Q_{tn} \leq 14$

$M_{CPT} = \alpha \cdot (q_t - \sigma_v)$

If $I_c \leq 2.20$

$M_{CPT} = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$

:: Small strain shear Modulus, Go (MPa) ::

$G_0 = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$

:: Shear Wave Velocity, Vs (m/s) ::

$$V_s = \left(\frac{G_0}{\rho}\right)^{0.50}$$

:: Undrained peak shear strength, Su (kPa) ::

$N_{kt} = 10.50 + 7 \cdot \log(F_r)$ or user defined

$$S_u = \frac{(q_t - \sigma_v)}{N_{kt}}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Remolded undrained shear strength, Su(rem) (kPa) ::

$S_{u(rem)} = f_s$ (applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Overconsolidation Ratio, OCR ::

$$k_{OCR} = \left[\frac{Q_{tn}^{0.20}}{0.25 \cdot (10.50 \cdot +7 \cdot \log(F_r))}\right]^{1.25}$$ or user defined

$OCR = k_{OCR} \cdot Q_{tn}$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: In situ Stress Ratio, Ko ::

$K_O = (1 - \sin\varphi') \cdot OCR^{\sin\varphi'}$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Soil Sensitivity, S_t ::

$$S_t = \frac{N_S}{F_r}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Effective Stress Friction Angle, φ' (°) ::

$\varphi' = 29.5° \cdot B_q^{0.121} \cdot (0.256 + 0.336 \cdot B_q + \log Q_t)$

(applicable for $0.10 < B_q < 1.00$)

References

- Robertson, P.K., Cabal K.L., Guide to Cone Penetration Testing for Geotechnical Engineering, Gregg Drilling & Testing, Inc., 5th Edition, November 2012
- Robertson, P.K., Interpretation of Cone Penetration Tests - a unified approach., Can. Geotech. J. 46(11): 1337–1355 (2009)

APPENDIX D

LIQUEFACTION ANALYSIS RESULTS

LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-4 Water Depth=10 ft Surface Elev.=673

Magnitude=6.76
Acceleration=.658g

LiquefyPro CivilTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-4.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=673
Hole No.=B-4
Depth of Hole= 51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=673
Hole No.=B-4
Depth of Hole=51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	12.00	127.00	6.00
10.00	24.00	127.00	6.00
12.50	24.00	127.00	6.00
12.60	8.00	115.00	NoLiq
20.00	8.00	115.00	NoLiq
20.10	17.00	110.00	57.00
23.00	17.00	110.00	NoLiq
23.10	14.00	115.00	NoLiq
27.50	14.00	115.00	NoLiq
27.60	17.00	130.00	49.00

35.00	24.00	130.00	49.00
40.00	24.00	130.00	49.00
40.10	23.00	130.00	45.00
45.00	20.00	130.00	45.00
48.00	20.00	130.00	45.00
48.10	34.00	107.00	6.00
50.50	34.00	130.00	45.00

Output Results:

Settlement of Saturated Sands=2.26 in.
Settlement of Unsaturated Sands=0.28 in.
Total Settlement of Saturated and Unsaturated Sands=2.54 in.
Differential Settlement=1.272 to 1.679 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.32	0.56	5.00	2.26	0.28	2.54
1.00	0.36	0.55	5.00	2.26	0.28	2.54
2.00	0.40	0.55	5.00	2.26	0.27	2.54
3.00	0.48	0.55	5.00	2.26	0.26	2.52
4.00	2.61	0.55	5.00	2.26	0.22	2.49
5.00	2.61	0.55	5.00	2.26	0.21	2.48
6.00	2.61	0.55	5.00	2.26	0.20	2.46
7.00	2.61	0.55	5.00	2.26	0.16	2.42
8.00	2.61	0.55	5.00	2.26	0.06	2.33
9.00	2.61	0.54	5.00	2.26	0.01	2.27
10.00	2.61	0.54	4.80	2.26	0.00	2.26
11.00	2.61	0.57	4.60	2.25	0.00	2.25
12.00	2.61	0.59	4.43	2.23	0.00	2.23
13.00	2.00	0.61	5.00	2.21	0.00	2.21
14.00	2.00	0.63	5.00	2.21	0.00	2.21
15.00	2.00	0.64	5.00	2.21	0.00	2.21
16.00	2.00	0.66	5.00	2.21	0.00	2.21
17.00	2.00	0.67	5.00	2.21	0.00	2.21
18.00	2.00	0.69	5.00	2.21	0.00	2.21
19.00	2.00	0.70	5.00	2.21	0.00	2.21
20.00	2.00	0.71	5.00	2.21	0.00	2.21
21.00	0.53	0.72	0.74*	2.13	0.00	2.13
22.00	0.49	0.73	0.67*	2.03	0.00	2.03
23.00	0.47	0.74	0.63*	1.92	0.00	1.92
24.00	2.00	0.75	5.00	1.92	0.00	1.92
25.00	2.00	0.76	5.00	1.92	0.00	1.92
26.00	2.00	0.77	5.00	1.92	0.00	1.92
27.00	2.00	0.77	5.00	1.92	0.00	1.92
28.00	0.45	0.78	0.57*	1.87	0.00	1.87
29.00	0.48	0.78	0.61*	1.76	0.00	1.76
30.00	0.53	0.79	0.67*	1.66	0.00	1.66
31.00	2.54	0.79	3.22	1.57	0.00	1.57
32.00	2.52	0.79	3.21	1.49	0.00	1.49
33.00	2.50	0.78	3.19	1.43	0.00	1.43
34.00	2.49	0.78	3.18	1.37	0.00	1.37
35.00	2.47	0.78	3.18	1.34	0.00	1.34
36.00	2.46	0.78	3.17	1.31	0.00	1.31
37.00	2.44	0.77	3.16	1.26	0.00	1.26
38.00	2.43	0.77	3.16	1.21	0.00	1.21
39.00	2.41	0.77	3.15	1.15	0.00	1.15
40.00	2.40	0.76	3.15	1.09	0.00	1.09
41.00	0.47	0.76	0.62*	1.00	0.00	1.00
42.00	0.42	0.75	0.56*	0.89	0.00	0.89
43.00	0.39	0.75	0.52*	0.77	0.00	0.77
44.00	0.36	0.74	0.49*	0.64	0.00	0.64

45.00	0.34	0.74	0.46*	0.51	0.00	0.51
46.00	0.34	0.73	0.46*	0.37	0.00	0.37
47.00	0.33	0.73	0.45*	0.23	0.00	0.23
48.00	0.32	0.72	0.45*	0.09	0.00	0.09
49.00	2.28	0.72	3.17	0.01	0.00	0.01
50.00	2.27	0.71	3.18	0.00	0.00	0.00
51.00	2.26	0.71	3.19	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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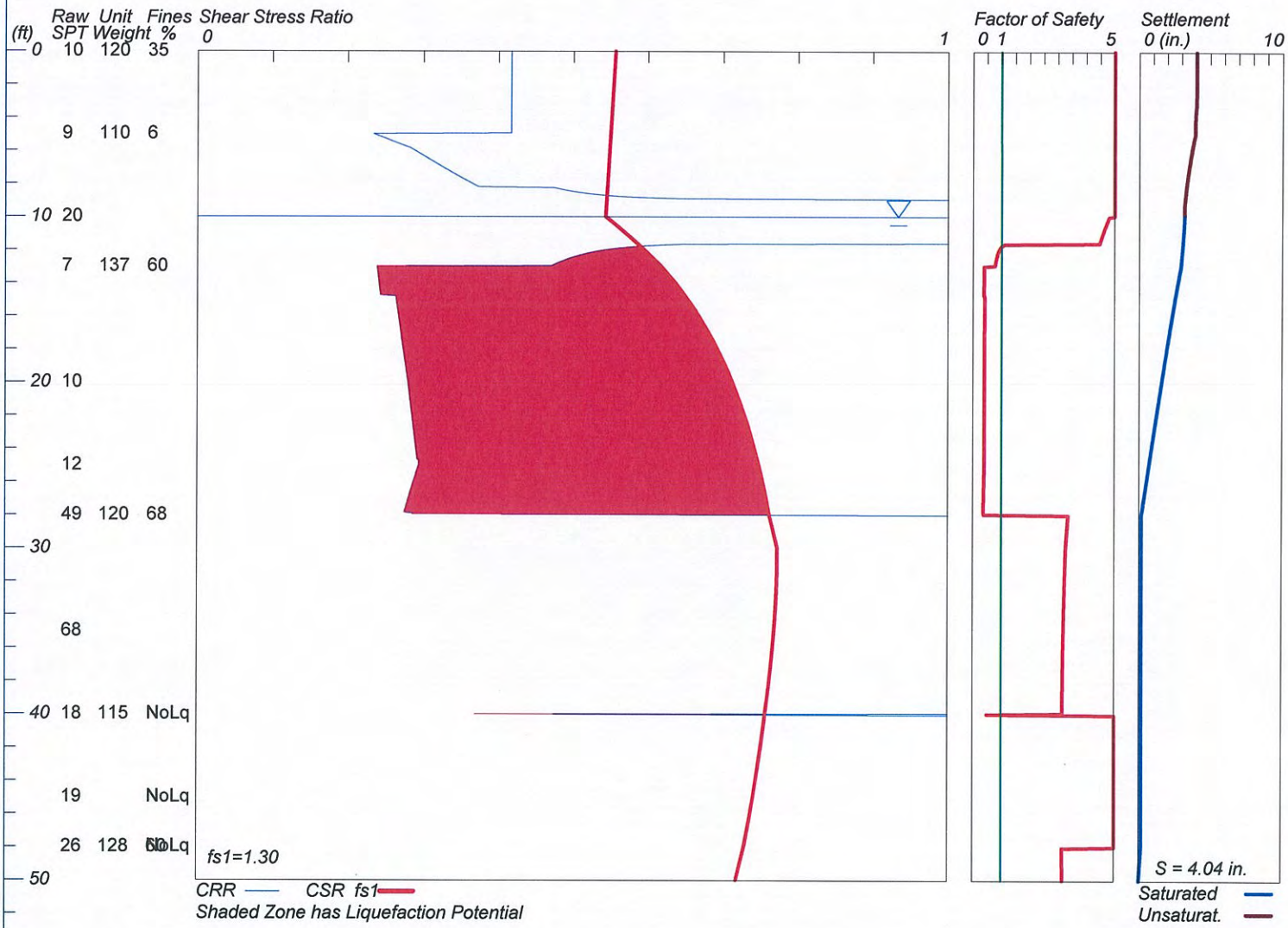
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-6 Water Depth=10 ft

Magnitude=6.76
Acceleration=.658g



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-6.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=
Hole No.=B-6
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=B-6
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	10.00	120.00	35.00
4.99	10.00	120.00	35.00
5.00	9.00	110.00	6.00
10.00	20.00	110.00	6.00
12.99	20.00	110.00	6.00
13.00	7.00	137.00	60.00
20.00	10.00	137.00	60.00
25.00	12.00	137.00	60.00
27.99	12.00	137.00	60.00
28.00	49.00	120.00	68.00

35.00	68.00	120.00	68.00
39.99	68.00	120.00	68.00
40.00	18.00	115.00	NoLiq
45.00	19.00	115.00	NoLiq
47.99	19.00	115.00	NoLiq
48.00	26.00	128.00	60.00
50.00	26.00	128.00	60.00

Output Results:

Settlement of Saturated Sands=3.19 in.
Settlement of Unsaturated Sands=0.86 in.
Total Settlement of Saturated and Unsaturated Sands=4.04 in.
Differential Settlement=2.021 to 2.668 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.42	0.56	5.00	3.19	0.86	4.04
1.00	0.42	0.55	5.00	3.19	0.85	4.04
2.00	0.42	0.55	5.00	3.19	0.85	4.04
3.00	0.42	0.55	5.00	3.19	0.84	4.02
4.00	0.42	0.55	5.00	3.19	0.77	3.95
5.00	0.23	0.55	5.00	3.19	0.75	3.94
6.00	0.29	0.55	5.00	3.19	0.53	3.71
7.00	0.32	0.55	5.00	3.19	0.34	3.53
8.00	0.36	0.55	5.00	3.19	0.18	3.37
9.00	2.61	0.54	5.00	3.19	0.05	3.24
10.00	2.61	0.54	4.80	3.19	0.00	3.19
11.00	2.61	0.57	4.58	3.12	0.00	3.12
12.00	0.54	0.59	0.91*	3.04	0.00	3.04
13.00	0.24	0.62	0.39*	2.94	0.00	2.94
14.00	0.24	0.64	0.38*	2.73	0.00	2.73
15.00	0.26	0.65	0.40*	2.52	0.00	2.52
16.00	0.27	0.67	0.40*	2.33	0.00	2.33
17.00	0.27	0.68	0.40*	2.14	0.00	2.14
18.00	0.27	0.69	0.39*	1.95	0.00	1.95
19.00	0.28	0.70	0.39*	1.77	0.00	1.77
20.00	0.28	0.71	0.39*	1.58	0.00	1.58
21.00	0.28	0.72	0.39*	1.40	0.00	1.40
22.00	0.28	0.73	0.39*	1.22	0.00	1.22
23.00	0.29	0.74	0.39*	1.04	0.00	1.04
24.00	0.29	0.74	0.39*	0.87	0.00	0.87
25.00	0.29	0.75	0.39*	0.69	0.00	0.69
26.00	0.29	0.75	0.38*	0.52	0.00	0.52
27.00	0.28	0.76	0.37*	0.34	0.00	0.34
28.00	2.56	0.76	3.37	0.16	0.00	0.16
29.00	2.55	0.77	3.32	0.16	0.00	0.16
30.00	2.53	0.77	3.28	0.16	0.00	0.16
31.00	2.52	0.77	3.26	0.16	0.00	0.16
32.00	2.50	0.77	3.24	0.16	0.00	0.16
33.00	2.49	0.77	3.23	0.16	0.00	0.16
34.00	2.47	0.77	3.21	0.16	0.00	0.16
35.00	2.46	0.77	3.20	0.16	0.00	0.16
36.00	2.45	0.77	3.19	0.16	0.00	0.16
37.00	2.43	0.76	3.18	0.16	0.00	0.16
38.00	2.42	0.76	3.18	0.16	0.00	0.16
39.00	2.41	0.76	3.17	0.16	0.00	0.16
40.00	0.37	0.76	0.49*	0.16	0.00	0.16
41.00	2.00	0.75	5.00	0.15	0.00	0.15
42.00	2.00	0.75	5.00	0.15	0.00	0.15
43.00	2.00	0.75	5.00	0.15	0.00	0.15
44.00	2.00	0.74	5.00	0.15	0.00	0.15

45.00	2.00	0.74	5.00	0.15	0.00	0.15
46.00	2.00	0.74	5.00	0.15	0.00	0.15
47.00	2.00	0.73	5.00	0.15	0.00	0.15
48.00	2.00	0.73	5.00	0.15	0.00	0.15
49.00	2.29	0.72	3.16	0.08	0.00	0.08
50.00	2.27	0.72	3.17	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

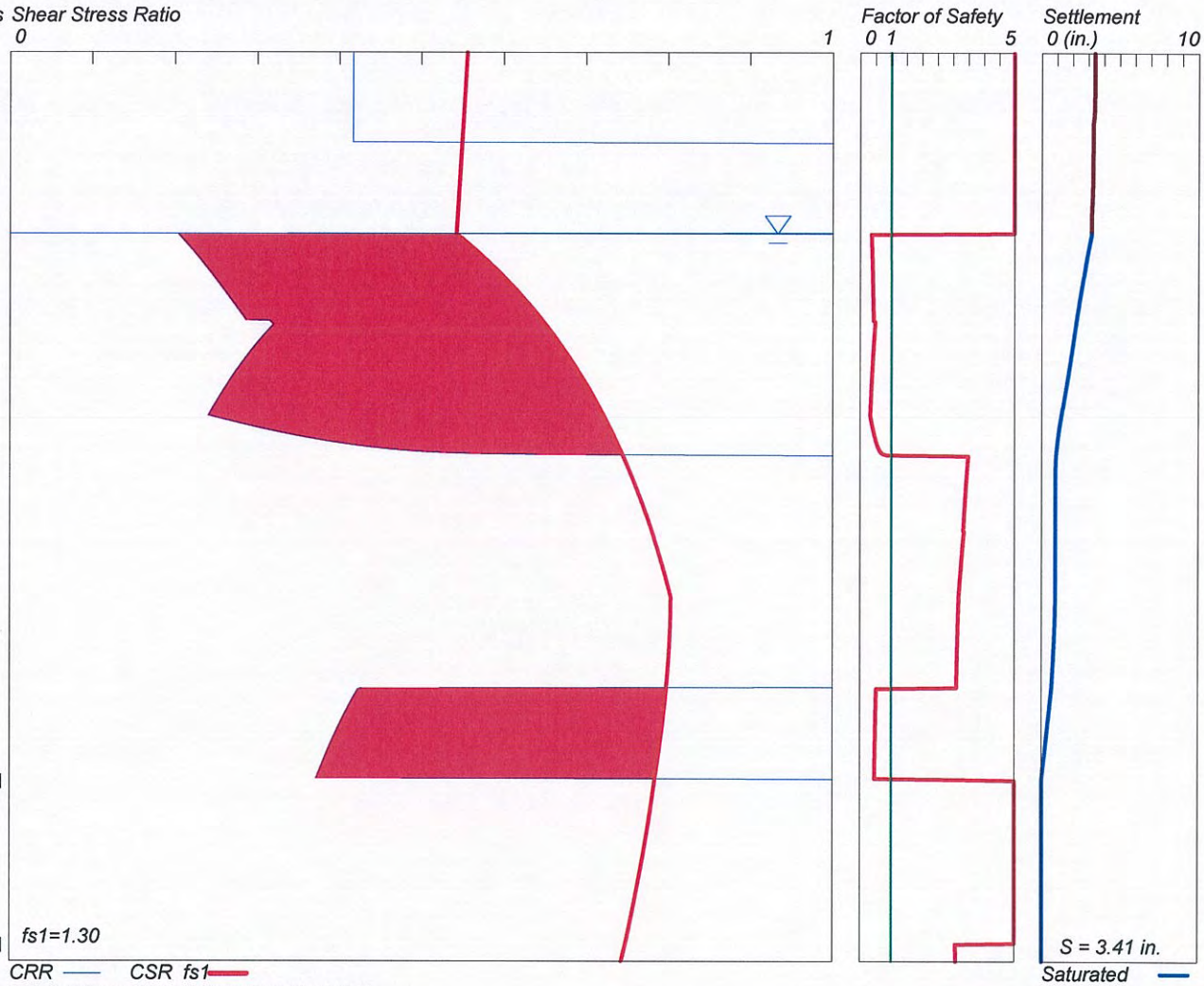
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-7 Water Depth=10 ft Surface Elev.=675

Magnitude=6.76
Acceleration=.658g

(ft)	Raw SPT	Unit Weight	Fines %
0	10	120	35
	24	120	5
10	5	115	59
	10		
20	8		
	30		
30	31	120	5
	19	120	35
40	26	115	NoLq
	52	120	35 NoLq
50			
60			
70			



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-7.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=675
Hole No.=B-7
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=675
Hole No.=B-7
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	10.00	120.00	35.00
4.99	10.00	120.00	35.00
5.00	24.00	120.00	5.00
9.99	24.00	120.00	5.00
10.00	5.00	115.00	59.00
15.00	10.00	115.00	59.00
20.00	8.00	115.00	59.00
25.00	30.00	115.00	59.00
29.99	30.00	115.00	59.00
30.00	31.00	120.00	5.00

34.99	31.00	120.00	5.00
35.00	19.00	120.00	35.00
39.99	19.00	120.00	35.00
40.00	26.00	115.00	NoLiq
48.99	26.00	115.00	NoLiq
49.00	52.00	120.00	35.00
50.00	52.00	120.00	35.00

Output Results:

Settlement of Saturated Sands=3.20 in.
Settlement of Unsaturated Sands=0.21 in.
Total Settlement of Saturated and Unsaturated Sands=3.41 in.
Differential Settlement=1.705 to 2.251 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.42	0.56	5.00	3.20	0.21	3.41
1.00	0.42	0.55	5.00	3.20	0.20	3.41
2.00	0.42	0.55	5.00	3.20	0.20	3.40
3.00	0.42	0.55	5.00	3.20	0.19	3.39
4.00	0.42	0.55	5.00	3.20	0.12	3.32
5.00	2.61	0.55	5.00	3.20	0.10	3.31
6.00	2.61	0.55	5.00	3.20	0.10	3.30
7.00	2.61	0.55	5.00	3.20	0.09	3.29
8.00	2.61	0.55	5.00	3.20	0.06	3.26
9.00	2.61	0.54	5.00	3.20	0.01	3.21
10.00	0.20	0.54	0.38*	3.20	0.00	3.20
11.00	0.22	0.57	0.39*	2.97	0.00	2.97
12.00	0.24	0.59	0.41*	2.76	0.00	2.76
13.00	0.26	0.61	0.42*	2.56	0.00	2.56
14.00	0.27	0.63	0.43*	2.36	0.00	2.36
15.00	0.32	0.65	0.49*	2.19	0.00	2.19
16.00	0.30	0.67	0.45*	2.02	0.00	2.02
17.00	0.28	0.68	0.41*	1.84	0.00	1.84
18.00	0.27	0.70	0.38*	1.66	0.00	1.66
19.00	0.25	0.71	0.36*	1.46	0.00	1.46
20.00	0.24	0.72	0.33*	1.26	0.00	1.26
21.00	0.34	0.73	0.46*	1.08	0.00	1.08
22.00	0.50	0.74	0.68*	0.94	0.00	0.94
23.00	2.61	0.75	3.46	0.89	0.00	0.89
24.00	2.61	0.76	3.42	0.88	0.00	0.88
25.00	2.61	0.77	3.39	0.88	0.00	0.88
26.00	2.61	0.78	3.35	0.88	0.00	0.88
27.00	2.61	0.78	3.33	0.88	0.00	0.88
28.00	2.60	0.79	3.28	0.88	0.00	0.88
29.00	2.58	0.80	3.24	0.88	0.00	0.88
30.00	2.57	0.80	3.20	0.88	0.00	0.88
31.00	2.55	0.80	3.18	0.86	0.00	0.86
32.00	2.54	0.80	3.16	0.82	0.00	0.82
33.00	2.52	0.80	3.15	0.77	0.00	0.77
34.00	2.51	0.80	3.14	0.70	0.00	0.70
35.00	0.43	0.80	0.54*	0.64	0.00	0.64
36.00	0.41	0.80	0.52*	0.51	0.00	0.51
37.00	0.40	0.79	0.50*	0.39	0.00	0.39
38.00	0.39	0.79	0.49*	0.26	0.00	0.26
39.00	0.38	0.79	0.48*	0.13	0.00	0.13
40.00	2.42	0.78	3.09	0.00	0.00	0.00
41.00	2.00	0.78	5.00	0.00	0.00	0.00
42.00	2.00	0.78	5.00	0.00	0.00	0.00
43.00	2.00	0.77	5.00	0.00	0.00	0.00
44.00	2.00	0.77	5.00	0.00	0.00	0.00

45.00	2.00	0.77	5.00	0.00	0.00	0.00
46.00	2.00	0.76	5.00	0.00	0.00	0.00
47.00	2.00	0.76	5.00	0.00	0.00	0.00
48.00	2.00	0.75	5.00	0.00	0.00	0.00
49.00	2.00	0.75	5.00	0.00	0.00	0.00
50.00	2.30	0.74	3.10	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

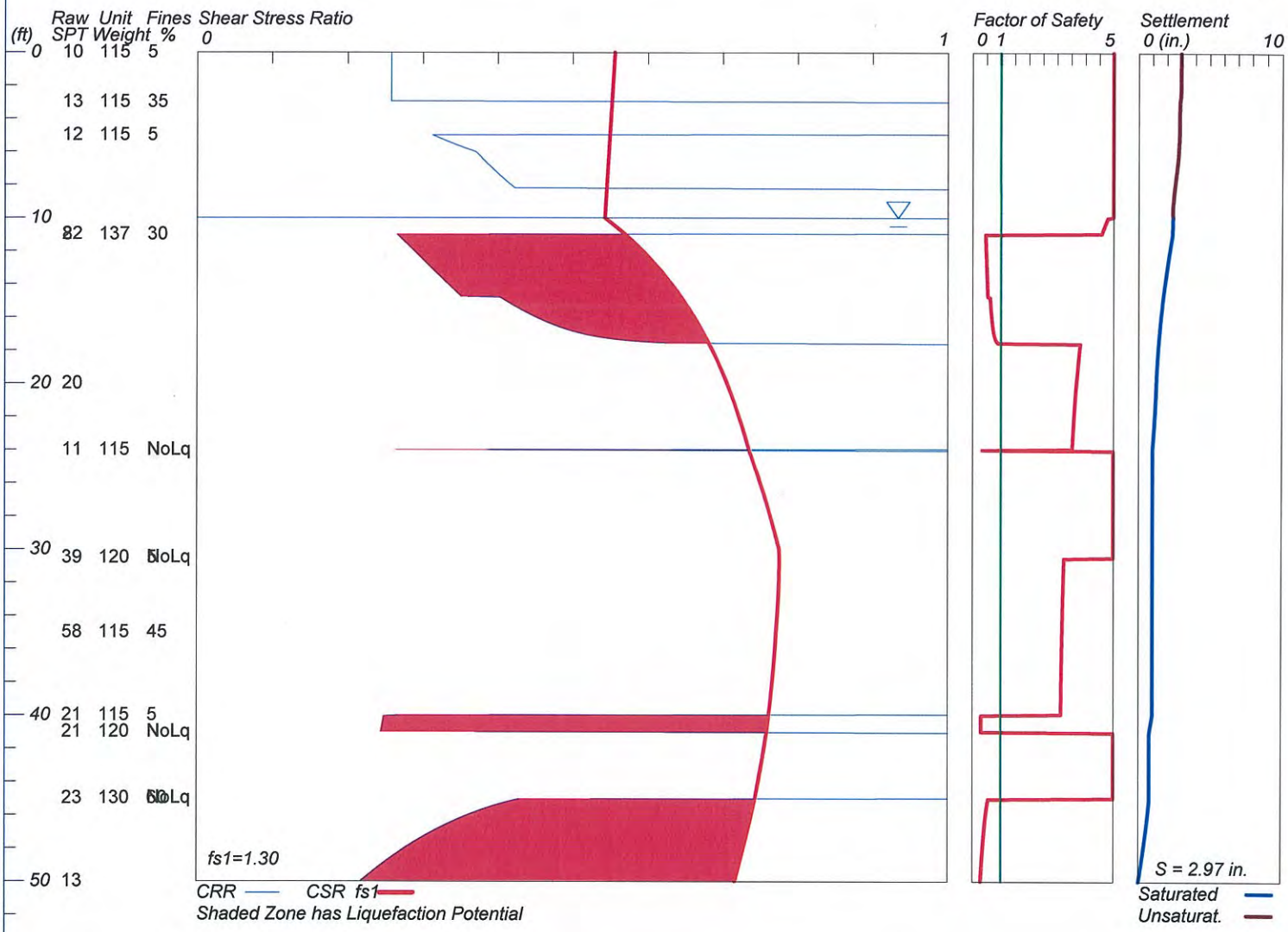
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-8 Water Depth=10 ft

Magnitude=6.76
Acceleration=.658g



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-8.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209318009

Surface Elev.=
Hole No.=B-8
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=B-8
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	10.00	115.00	5.00
2.99	10.00	115.00	5.00
3.00	13.00	115.00	35.00
4.99	13.00	115.00	35.00
5.00	12.00	115.00	5.00
10.99	22.00	115.00	5.00
11.00	8.00	137.00	30.00
20.00	20.00	137.00	30.00
23.99	20.00	137.00	30.00
24.00	11.00	115.00	NoLiq

30.49	11.00	115.00	NoLiq
30.50	39.00	120.00	5.00
34.99	39.00	120.00	5.00
35.00	58.00	115.00	45.00
39.99	58.00	115.00	45.00
40.00	21.00	115.00	5.00
40.99	21.00	115.00	5.00
41.00	21.00	120.00	NoLiq
44.99	21.00	120.00	NoLiq
45.00	23.00	130.00	60.00
50.00	13.00	130.00	60.00

Output Results:

Settlement of Saturated Sands=2.38 in.
Settlement of Unsaturated Sands=0.59 in.
Total Settlement of Saturated and Unsaturated Sands=2.97 in.
Differential Settlement=1.487 to 1.963 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.26	0.56	5.00	2.38	0.59	2.97
1.00	0.26	0.55	5.00	2.38	0.59	2.97
2.00	0.26	0.55	5.00	2.38	0.58	2.96
3.00	2.61	0.55	5.00	2.38	0.49	2.88
4.00	2.61	0.55	5.00	2.38	0.48	2.86
5.00	0.31	0.55	5.00	2.38	0.47	2.85
6.00	0.37	0.55	5.00	2.38	0.41	2.80
7.00	0.39	0.55	5.00	2.38	0.31	2.69
8.00	0.42	0.55	5.00	2.38	0.17	2.55
9.00	2.61	0.54	5.00	2.38	0.05	2.44
10.00	2.61	0.54	4.80	2.38	0.00	2.38
11.00	0.27	0.57	0.47*	2.35	0.00	2.35
12.00	0.29	0.59	0.49*	2.17	0.00	2.17
13.00	0.31	0.61	0.51*	2.00	0.00	2.00
14.00	0.33	0.63	0.53*	1.84	0.00	1.84
15.00	0.41	0.65	0.63*	1.69	0.00	1.69
16.00	0.45	0.66	0.68*	1.56	0.00	1.56
17.00	0.51	0.68	0.76*	1.45	0.00	1.45
18.00	2.61	0.69	3.80	1.36	0.00	1.36
19.00	2.61	0.70	3.74	1.29	0.00	1.29
20.00	2.61	0.71	3.69	1.24	0.00	1.24
21.00	2.61	0.72	3.65	1.20	0.00	1.20
22.00	2.61	0.72	3.61	1.13	0.00	1.13
23.00	2.61	0.73	3.57	1.06	0.00	1.06
24.00	0.27	0.74	0.36*	0.98	0.00	0.98
25.00	2.00	0.74	5.00	0.97	0.00	0.97
26.00	2.00	0.75	5.00	0.97	0.00	0.97
27.00	2.00	0.76	5.00	0.97	0.00	0.97
28.00	2.00	0.76	5.00	0.97	0.00	0.97
29.00	2.00	0.77	5.00	0.97	0.00	0.97
30.00	2.00	0.78	5.00	0.97	0.00	0.97
31.00	2.52	0.78	3.25	0.97	0.00	0.97
32.00	2.51	0.78	3.23	0.97	0.00	0.97
33.00	2.49	0.78	3.22	0.97	0.00	0.97
34.00	2.48	0.77	3.20	0.97	0.00	0.97
35.00	2.47	0.77	3.19	0.97	0.00	0.97
36.00	2.45	0.77	3.18	0.97	0.00	0.97
37.00	2.44	0.77	3.17	0.97	0.00	0.97
38.00	2.43	0.77	3.16	0.97	0.00	0.97
39.00	2.41	0.77	3.15	0.97	0.00	0.97
40.00	0.27	0.76	0.35*	0.97	0.00	0.97

41.00	0.25	0.76	0.32*	0.78	0.00	0.78
42.00	2.00	0.76	5.00	0.77	0.00	0.77
43.00	2.00	0.75	5.00	0.77	0.00	0.77
44.00	2.00	0.75	5.00	0.77	0.00	0.77
45.00	2.00	0.74	5.00	0.77	0.00	0.77
46.00	0.36	0.74	0.49*	0.66	0.00	0.66
47.00	0.31	0.73	0.43*	0.52	0.00	0.52
48.00	0.28	0.73	0.38*	0.36	0.00	0.36
49.00	0.25	0.72	0.34*	0.19	0.00	0.19
50.00	0.22	0.72	0.30*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

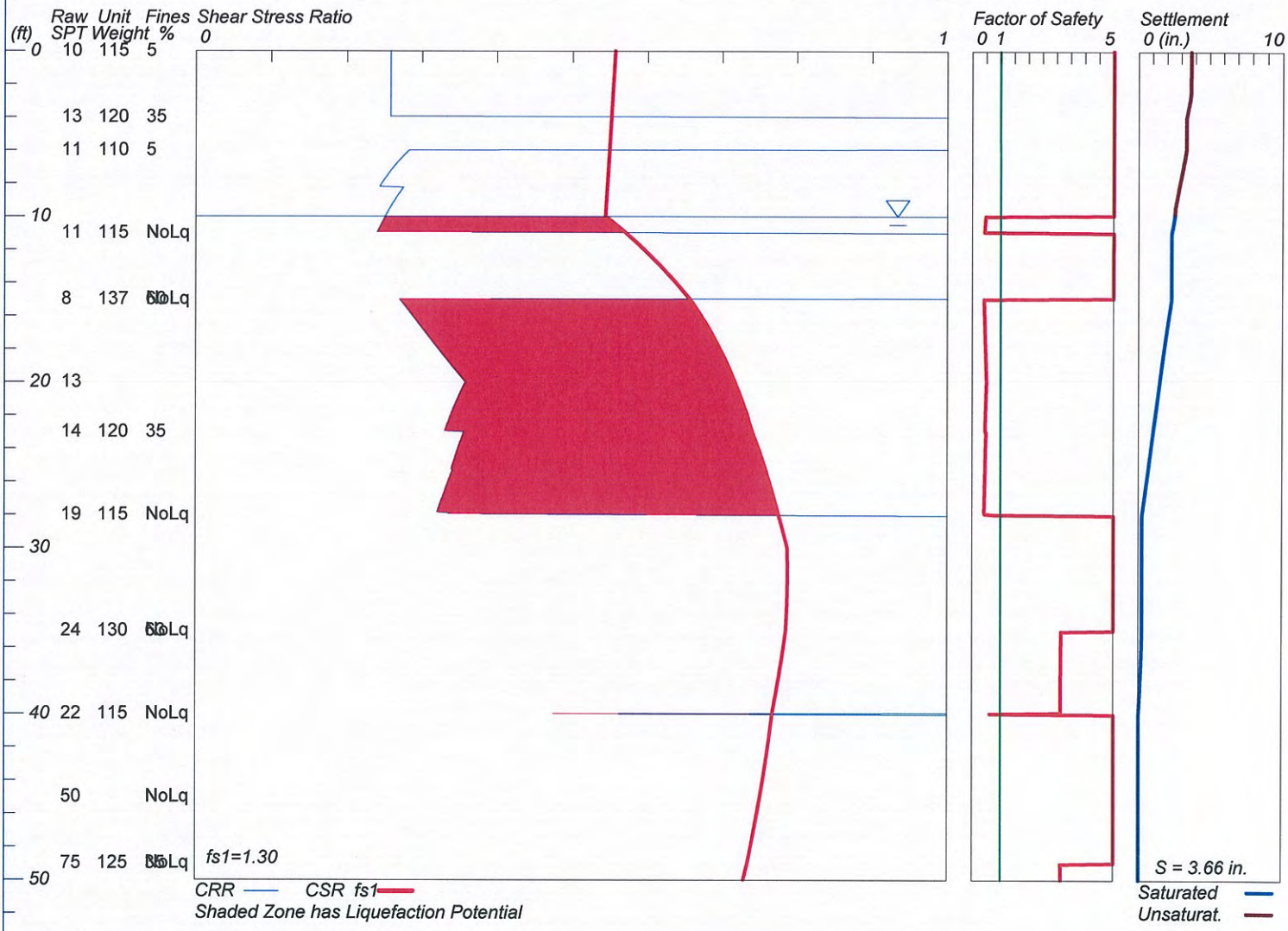
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-9 Water Depth=10 ft

Magnitude=6.76
Acceleration=.658g



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-9.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209318009

Surface Elev.=
Hole No.=B-9
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=B-9
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	10.00	115.00	5.00
3.99	10.00	115.00	5.00
4.00	13.00	120.00	35.00
5.99	13.00	120.00	35.00
6.00	11.00	110.00	5.00
10.99	11.00	110.00	5.00
11.00	11.00	115.00	NoLiq
14.99	11.00	115.00	NoLiq
15.00	8.00	137.00	60.00
20.00	13.00	137.00	60.00

22.99	13.00	137.00	60.00
23.00	14.00	120.00	35.00
27.99	14.00	120.00	35.00
28.00	19.00	115.00	NoLiq
34.99	19.00	115.00	NoLiq
35.00	24.00	130.00	63.00
39.99	24.00	130.00	63.00
40.00	22.00	115.00	NoLiq
45.00	50.00	115.00	NoLiq
48.99	50.00	115.00	NoLiq
49.00	75.00	125.00	35.00
50.00	75.00	125.00	35.00

Output Results:

Settlement of Saturated Sands=2.51 in.
Settlement of Unsaturated Sands=1.16 in.
Total Settlement of Saturated and Unsaturated Sands=3.66 in.
Differential Settlement=1.832 to 2.419 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.26	0.56	5.00	2.51	1.16	3.66
1.00	0.26	0.55	5.00	2.51	1.15	3.66
2.00	0.26	0.55	5.00	2.51	1.15	3.65
3.00	0.26	0.55	5.00	2.51	1.06	3.57
4.00	2.61	0.55	5.00	2.51	0.84	3.34
5.00	2.61	0.55	5.00	2.51	0.83	3.33
6.00	0.28	0.55	5.00	2.51	0.82	3.32
7.00	0.26	0.55	5.00	2.51	0.60	3.11
8.00	0.25	0.55	5.00	2.51	0.37	2.88
9.00	0.26	0.54	5.00	2.51	0.15	2.66
10.00	0.25	0.54	0.46*	2.51	0.00	2.51
11.00	2.00	0.57	5.00	2.30	0.00	2.30
12.00	2.00	0.59	5.00	2.30	0.00	2.30
13.00	2.00	0.62	5.00	2.30	0.00	2.30
14.00	2.00	0.64	5.00	2.30	0.00	2.30
15.00	0.27	0.66	0.41*	2.30	0.00	2.30
16.00	0.29	0.67	0.43*	2.12	0.00	2.12
17.00	0.30	0.68	0.44*	1.94	0.00	1.94
18.00	0.32	0.70	0.46*	1.78	0.00	1.78
19.00	0.34	0.71	0.48*	1.62	0.00	1.62
20.00	0.36	0.72	0.50*	1.47	0.00	1.47
21.00	0.35	0.73	0.48*	1.32	0.00	1.32
22.00	0.34	0.73	0.46*	1.17	0.00	1.17
23.00	0.36	0.74	0.48*	1.01	0.00	1.01
24.00	0.35	0.75	0.46*	0.86	0.00	0.86
25.00	0.34	0.76	0.45*	0.71	0.00	0.71
26.00	0.33	0.76	0.44*	0.56	0.00	0.56
27.00	0.33	0.77	0.42*	0.40	0.00	0.40
28.00	0.60	0.78	0.77*	0.24	0.00	0.24
29.00	2.00	0.78	5.00	0.24	0.00	0.24
30.00	2.00	0.79	5.00	0.24	0.00	0.24
31.00	2.00	0.79	5.00	0.24	0.00	0.24
32.00	2.00	0.79	5.00	0.24	0.00	0.24
33.00	2.00	0.79	5.00	0.24	0.00	0.24
34.00	2.00	0.79	5.00	0.24	0.00	0.24
35.00	2.00	0.79	5.00	0.24	0.00	0.24
36.00	2.46	0.78	3.15	0.21	0.00	0.21
37.00	2.45	0.78	3.15	0.17	0.00	0.17
38.00	2.43	0.78	3.14	0.12	0.00	0.12
39.00	2.42	0.77	3.14	0.07	0.00	0.07

40.00	0.47	0.77	0.62*	0.00	0.00	0.00
41.00	2.00	0.76	5.00	0.00	0.00	0.00
42.00	2.00	0.76	5.00	0.00	0.00	0.00
43.00	2.00	0.76	5.00	0.00	0.00	0.00
44.00	2.00	0.75	5.00	0.00	0.00	0.00
45.00	2.00	0.75	5.00	0.00	0.00	0.00
46.00	2.00	0.75	5.00	0.00	0.00	0.00
47.00	2.00	0.74	5.00	0.00	0.00	0.00
48.00	2.00	0.74	5.00	0.00	0.00	0.00
49.00	2.00	0.73	5.00	0.00	0.00	0.00
50.00	2.29	0.73	3.14	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

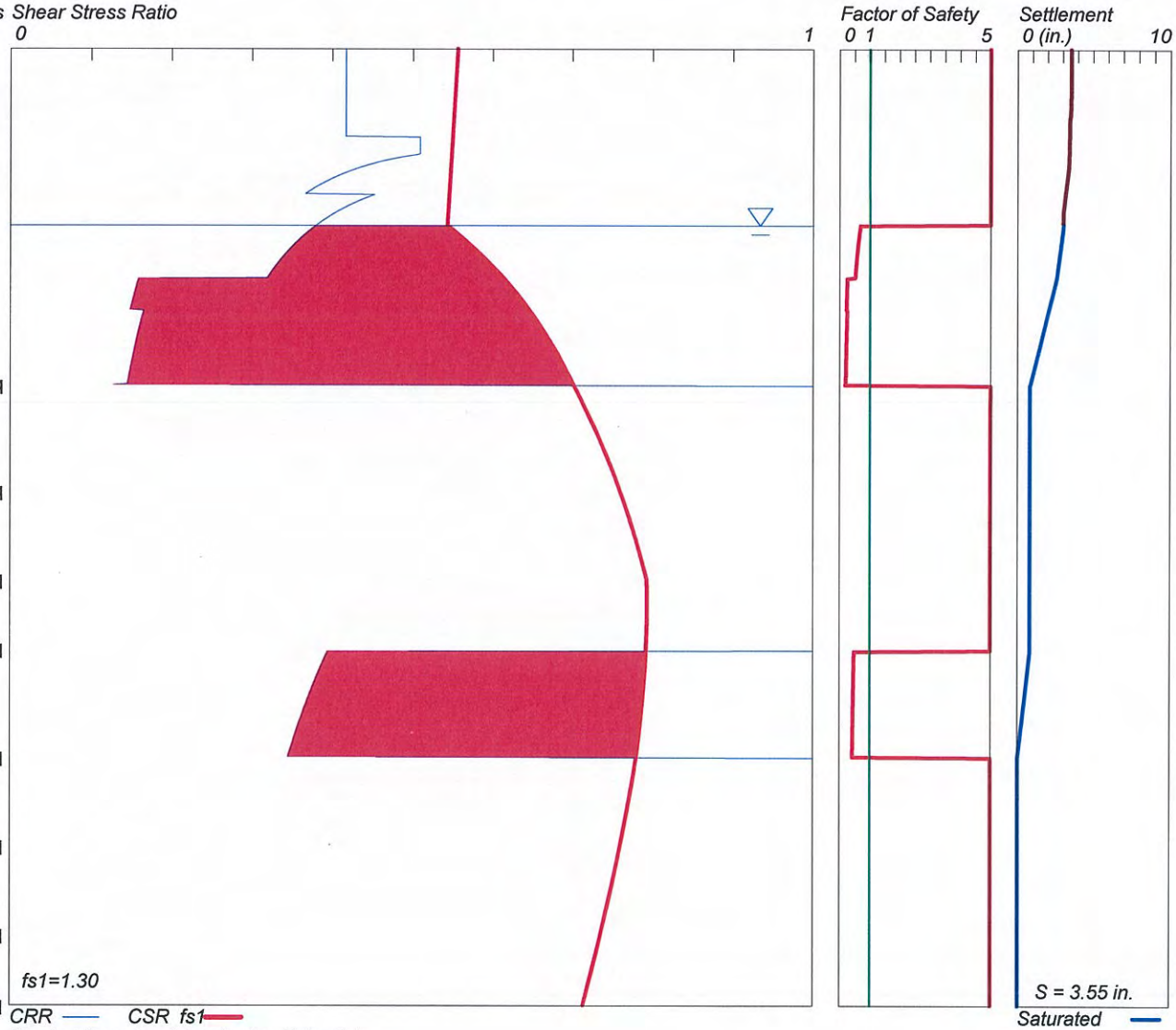
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=B-11 Water Depth=10 ft

Magnitude=6.76
Acceleration=.658g

(ft)	Raw SPT	Unit Weight	Fines %
0	10	115	35
	16	120	5
10			
	8	130	6
	7	115	NoLq
20			
	13		NoLq
30	15		NoLq
	18	115	NoLq
40	18	120	NoLq
	24		NoLq
50	24		NoLq
			NoLq
60			
70			



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_B-11.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209318009

Surface Elev.=
Hole No.=B-11
Depth of Hole= 54.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=B-11
Depth of Hole=54.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 90.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	10.00	115.00	35.00
4.99	10.00	115.00	35.00
5.00	16.00	120.00	5.00
12.99	16.00	120.00	5.00
13.00	8.00	130.00	6.00
18.99	8.00	130.00	6.00
19.00	7.00	115.00	NoLiq
25.00	13.00	115.00	NoLiq
30.00	15.00	115.00	NoLiq
33.90	15.00	115.00	NoLiq

34.00	18.00	115.00	45.00
39.99	18.00	115.00	45.00
40.00	18.00	120.00	NoLiq
45.00	24.00	120.00	NoLiq
50.00	24.00	120.00	NoLiq
54.00	24.00	120.00	NoLiq

Output Results:

Settlement of Saturated Sands=3.02 in.
Settlement of Unsaturated Sands=0.53 in.
Total Settlement of Saturated and Unsaturated Sands=3.55 in.
Differential Settlement=1.776 to 2.344 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.42	0.56	5.00	3.02	0.53	3.55
1.00	0.42	0.55	5.00	3.02	0.53	3.55
2.00	0.42	0.55	5.00	3.02	0.52	3.55
3.00	0.42	0.55	5.00	3.02	0.51	3.54
4.00	0.42	0.55	5.00	3.02	0.44	3.46
5.00	0.51	0.55	5.00	3.02	0.42	3.44
6.00	0.50	0.55	5.00	3.02	0.40	3.42
7.00	0.42	0.55	5.00	3.02	0.33	3.36
8.00	0.37	0.55	5.00	3.02	0.19	3.21
9.00	0.41	0.54	5.00	3.02	0.05	3.08
10.00	0.38	0.54	0.70*	3.02	0.00	3.02
11.00	0.35	0.57	0.62*	2.88	0.00	2.88
12.00	0.33	0.59	0.56*	2.73	0.00	2.73
13.00	0.16	0.61	0.26*	2.57	0.00	2.57
14.00	0.15	0.63	0.24*	2.28	0.00	2.28
15.00	0.16	0.65	0.25*	1.99	0.00	1.99
16.00	0.16	0.66	0.24*	1.71	0.00	1.71
17.00	0.15	0.68	0.23*	1.42	0.00	1.42
18.00	0.15	0.69	0.22*	1.13	0.00	1.13
19.00	0.13	0.70	0.18*	0.83	0.00	0.83
20.00	2.00	0.71	5.00	0.81	0.00	0.81
21.00	2.00	0.72	5.00	0.81	0.00	0.81
22.00	2.00	0.73	5.00	0.81	0.00	0.81
23.00	2.00	0.74	5.00	0.81	0.00	0.81
24.00	2.00	0.75	5.00	0.81	0.00	0.81
25.00	2.00	0.76	5.00	0.81	0.00	0.81
26.00	2.00	0.77	5.00	0.81	0.00	0.81
27.00	2.00	0.78	5.00	0.81	0.00	0.81
28.00	2.00	0.78	5.00	0.81	0.00	0.81
29.00	2.00	0.79	5.00	0.81	0.00	0.81
30.00	2.00	0.79	5.00	0.81	0.00	0.81
31.00	2.00	0.79	5.00	0.81	0.00	0.81
32.00	2.00	0.79	5.00	0.81	0.00	0.81
33.00	2.00	0.79	5.00	0.81	0.00	0.81
34.00	2.00	0.79	5.00	0.81	0.00	0.81
35.00	0.39	0.79	0.49*	0.69	0.00	0.69
36.00	0.38	0.79	0.48*	0.56	0.00	0.56
37.00	0.37	0.79	0.47*	0.42	0.00	0.42
38.00	0.36	0.79	0.46*	0.29	0.00	0.29
39.00	0.35	0.78	0.45*	0.15	0.00	0.15
40.00	0.35	0.78	0.44*	0.01	0.00	0.01
41.00	2.00	0.78	5.00	0.00	0.00	0.00
42.00	2.00	0.77	5.00	0.00	0.00	0.00
43.00	2.00	0.77	5.00	0.00	0.00	0.00
44.00	2.00	0.77	5.00	0.00	0.00	0.00
45.00	2.00	0.76	5.00	0.00	0.00	0.00

46.00	2.00	0.76	5.00	0.00	0.00	0.00
47.00	2.00	0.75	5.00	0.00	0.00	0.00
48.00	2.00	0.75	5.00	0.00	0.00	0.00
49.00	2.00	0.74	5.00	0.00	0.00	0.00
50.00	2.00	0.74	5.00	0.00	0.00	0.00
51.00	2.00	0.73	5.00	0.00	0.00	0.00
52.00	2.00	0.73	5.00	0.00	0.00	0.00
53.00	2.00	0.72	5.00	0.00	0.00	0.00
54.00	2.00	0.71	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

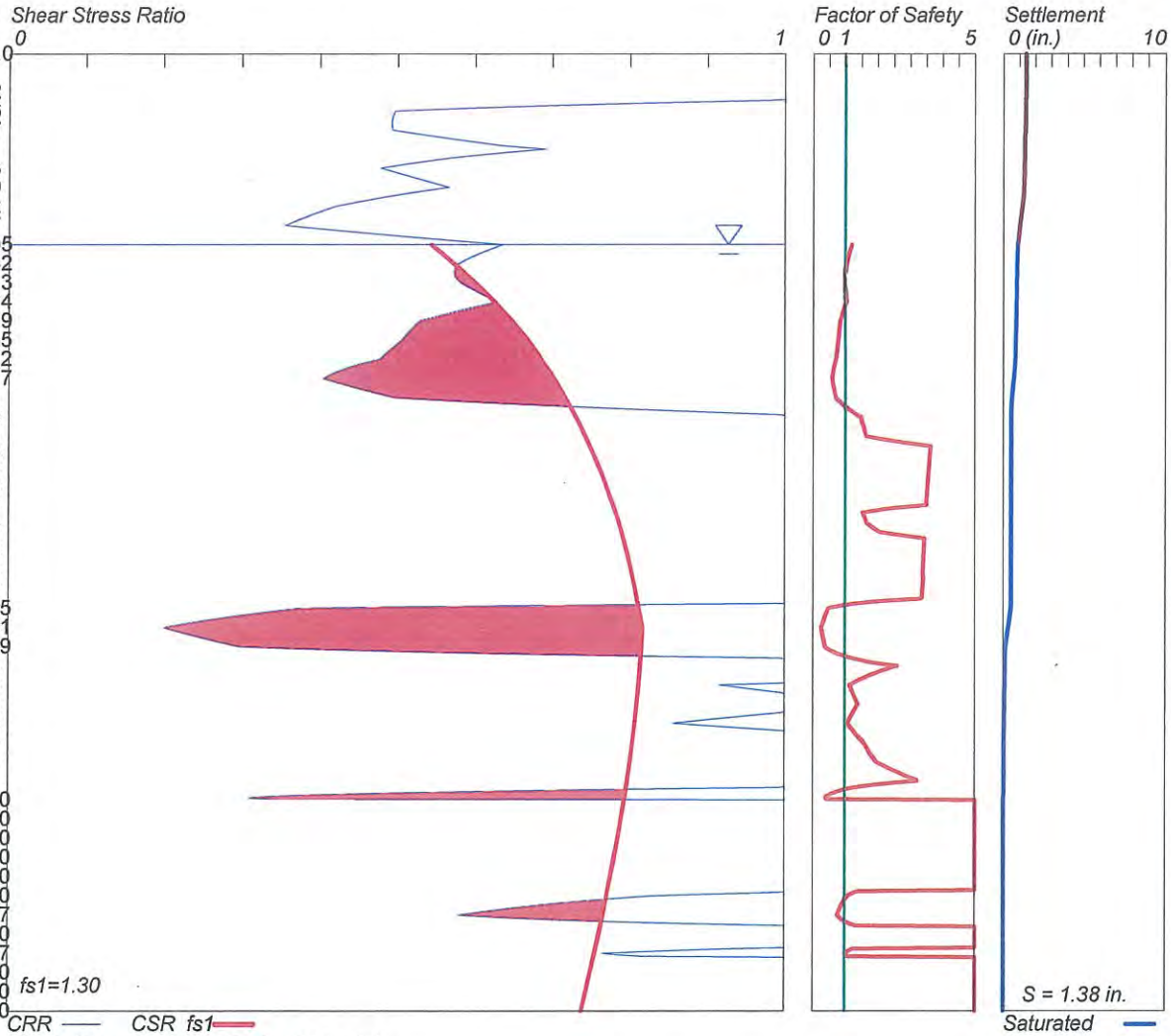
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=CPT-1 Water Depth=10 ft Surface Elev.=675

Magnitude=6.76
Acceleration=0.658g

(ft)	Raw qc	fc	Unit Weight	Fines %
0	118	1.4	105	101.0
	75.9	0.86		5.82
	52.8	0.55		8.76
	62	0.59		8.07
	86.7	0.55		4.51
	80.4	0.52		5.58
	93.7	0.64		5.39
	85.5	0.6		6.52
	83.3	0.56		6.87
10	99.5	1.47		11.05
	92.2	1.65		13.62
	81.4	1.99		18.13
	92.8	2.13		16.64
	89.5	1.93		16.69
	88.1	1.97	120	17.55
	85.7	1.98		18.52
	102.3	1.46		12.77
	127.7	1.46		9.61
	202.5	1.71		5.03
20	218.5	1.68		4.31
	365.6	3.34		2.96
	477.4	2.62		0.12
	470.5	2.95		0.68
	223.3	2.82		7.61
	273.3	1.79	125	3.07
	447.4	3.04		1.36
	601.7	5.04		1.35
	569.9	4.39		1.22
	130.5	1.89		13.35
30	94.7	0.92		13.41
	114.9	1.69		14.99
	347.5	3.09		4.04
	262.1	1.76		4.15
	287.9	1.71		3.22
	265	1.98		4.78
	310.7	2.5		4.39
	341.5	2.43		3.41
	414.6	2.74		2.31
	70	2.29		101.0
40	94.7	4.02		101.0
	105	4.9		101.0
	123.4	7.15		101.0
	101	6.37		101.0
	130.3	5.08		26.30
	141.7	4.39		22.57
	109.2	6.07		101.0
	132	5.03		26.27
	78.7	4.44		101.0
	40.4	2.38		101.0
50	88.1	4.22		101.0
60				
70				



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_CPT-1.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=675
Hole No.=CPT-1
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=675
Hole No.=CPT-1
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	118.00	1.40	105.00	0.00	0.50
2.00	75.90	0.86	105.00	0.00	0.50
3.00	52.80	0.55	105.00	0.00	0.50
4.00	62.00	0.59	105.00	0.00	0.50
5.00	86.70	0.55	105.00	0.00	0.50
6.00	80.40	0.52	105.00	0.00	0.50
7.00	93.70	0.64	105.00	0.00	0.50
8.00	85.50	0.60	105.00	0.00	0.50
9.00	83.30	0.56	105.00	0.00	0.50
10.00	99.50	1.47	105.00	0.00	0.50

11.00	92.20	1.65	105.00	0.00	0.50
12.00	81.40	1.99	105.00	0.00	0.50
13.00	92.80	2.13	105.00	0.00	0.50
14.00	89.50	1.93	105.00	0.00	0.50
15.00	88.10	1.97	120.00	0.00	0.50
16.00	85.70	1.98	120.00	0.00	0.50
17.00	102.30	1.46	120.00	0.00	0.50
18.00	127.70	1.46	120.00	0.00	0.50
19.00	202.50	1.71	120.00	0.00	0.50
20.00	218.50	1.68	120.00	0.00	0.50
21.00	365.60	3.34	120.00	0.00	0.50
22.00	477.40	2.62	120.00	0.00	0.50
23.00	470.50	2.95	120.00	0.00	0.50
24.00	223.30	2.82	120.00	0.00	0.50
25.00	273.30	1.79	125.00	0.00	0.50
26.00	447.40	3.04	125.00	0.00	0.50
27.00	601.70	5.04	125.00	0.00	0.50
28.00	569.90	4.39	125.00	0.00	0.50
29.00	130.50	1.89	125.00	0.00	0.50
30.00	94.70	0.92	125.00	0.00	0.50
31.00	114.90	1.69	125.00	0.00	0.50
32.00	347.50	3.09	125.00	0.00	0.50
33.00	262.10	1.76	125.00	0.00	0.50
34.00	287.90	1.71	125.00	0.00	0.50
35.00	265.00	1.98	125.00	0.00	0.50
36.00	310.70	2.50	125.00	0.00	0.50
37.00	341.50	2.43	125.00	0.00	0.50
38.00	414.60	2.74	125.00	0.00	0.50
39.00	70.00	2.29	125.00	0.00	0.50
40.00	94.70	4.02	125.00	0.00	0.50
41.00	105.00	4.90	125.00	0.00	0.50
42.00	123.40	7.15	125.00	0.00	0.50
43.00	101.00	6.37	125.00	0.00	0.50
44.00	130.30	5.08	125.00	0.00	0.50
45.00	141.70	4.39	125.00	0.00	0.50
46.00	109.20	6.07	125.00	0.00	0.50
47.00	132.00	5.03	125.00	0.00	0.50
48.00	78.70	4.44	125.00	0.00	0.50
49.00	40.40	2.38	125.00	0.00	0.50
50.00	88.10	4.22	125.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.89 in.
Settlement of Unsaturated Sands=0.50 in.
Total Settlement of Saturated and Unsaturated Sands=1.38 in.
Differential Settlement=0.692 to 0.914 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.56	5.00	0.89	0.50	1.38
1.00	2.71	0.55	5.00	0.89	0.50	1.38
2.00	1.77	0.55	5.00	0.89	0.50	1.38
3.00	0.50	0.55	5.00	0.89	0.49	1.38
4.00	0.49	0.55	5.00	0.89	0.47	1.35
5.00	0.69	0.55	5.00	0.89	0.43	1.31
6.00	0.48	0.55	5.00	0.89	0.41	1.30
7.00	0.57	0.55	5.00	0.89	0.38	1.26
8.00	0.42	0.55	5.00	0.89	0.28	1.16
9.00	0.36	0.54	5.00	0.89	0.13	1.01

10.00	0.64	0.54	1.17	0.89	0.00	0.89
11.00	0.58	0.57	1.01	0.85	0.00	0.85
12.00	0.58	0.60	0.97*	0.83	0.00	0.83
13.00	0.63	0.62	1.01	0.81	0.00	0.81
14.00	0.53	0.65	0.82*	0.79	0.00	0.79
15.00	0.51	0.67	0.76*	0.76	0.00	0.76
16.00	0.48	0.69	0.70*	0.72	0.00	0.72
17.00	0.40	0.70	0.58*	0.63	0.00	0.63
18.00	0.50	0.72	0.69*	0.52	0.00	0.52
19.00	1.07	0.73	1.46	0.47	0.00	0.47
20.00	1.21	0.74	1.64	0.47	0.00	0.47
21.00	2.71	0.75	3.60	0.47	0.00	0.47
22.00	2.71	0.76	3.55	0.47	0.00	0.47
23.00	2.71	0.77	3.51	0.47	0.00	0.47
24.00	1.20	0.78	1.53	0.47	0.00	0.47
25.00	1.61	0.79	2.04	0.47	0.00	0.47
26.00	2.71	0.80	3.41	0.47	0.00	0.47
27.00	2.71	0.80	3.39	0.47	0.00	0.47
28.00	2.72	0.81	3.37	0.47	0.00	0.47
29.00	0.38	0.81	0.46*	0.46	0.00	0.46
30.00	0.20	0.82	0.25*	0.31	0.00	0.31
31.00	0.30	0.81	0.37*	0.14	0.00	0.14
32.00	2.11	0.81	2.60	0.09	0.00	0.09
33.00	0.92	0.81	1.13	0.09	0.00	0.09
34.00	1.12	0.81	1.39	0.07	0.00	0.07
35.00	0.86	0.81	1.06	0.06	0.00	0.06
36.00	1.26	0.80	1.56	0.05	0.00	0.05
37.00	1.56	0.80	1.95	0.05	0.00	0.05
38.00	2.56	0.80	3.21	0.05	0.00	0.05
39.00	2.00	0.79	5.00	0.00	0.00	0.00
40.00	2.00	0.79	5.00	0.00	0.00	0.00
41.00	2.00	0.78	5.00	0.00	0.00	0.00
42.00	2.00	0.78	5.00	0.00	0.00	0.00
43.00	2.00	0.78	5.00	0.00	0.00	0.00
44.00	0.83	0.77	1.08	0.00	0.00	0.00
45.00	0.58	0.77	0.76*	0.00	0.00	0.00
46.00	2.00	0.76	5.00	0.00	0.00	0.00
47.00	0.77	0.76	1.01	0.00	0.00	0.00
48.00	2.00	0.75	5.00	0.00	0.00	0.00
49.00	2.00	0.74	5.00	0.00	0.00	0.00
50.00	2.00	0.74	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

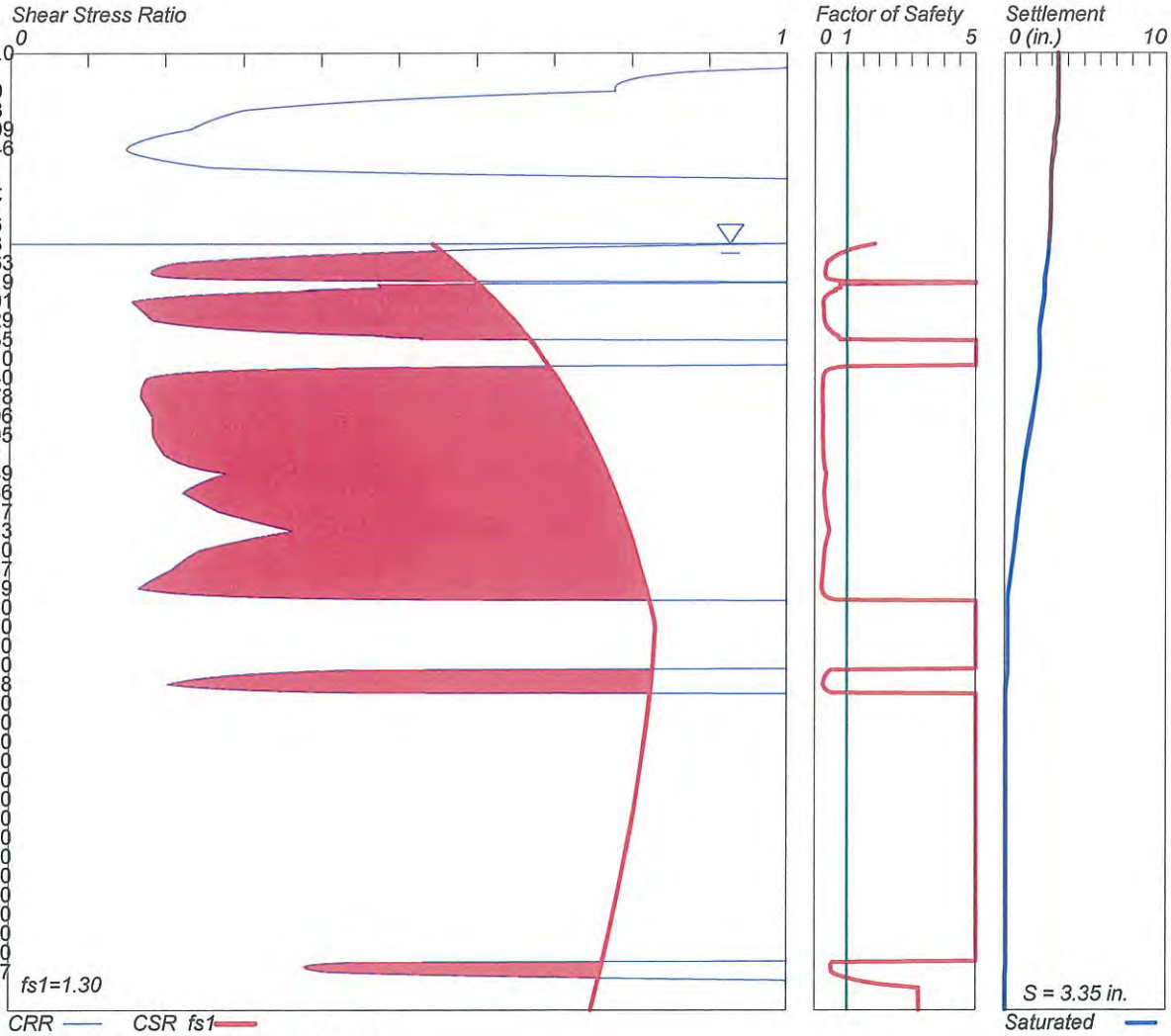
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=CPT-2 Water Depth=10 ft

Magnitude=6.76
Acceleration=0.658g

(ft)	Raw qc	fc	Unit Weight	Fines %
0	30.1	0.12	105	101.0
	54.5	0.54		6.89
	40.3	0.37		9.98
	36.6	0.39		13.09
	18.8	0.24		23.46
	56.8	0.33		7.41
	153.9	0.98		2.54
	134.4	1.19		5.07
	139.9	0.87		3.46
10	141.2	0.92		3.88
	62	0.47		10.63
	20.9	0.65		100.9
	22.6	0.32		28.91
	26.2	0.45		29.29
	25.7	0.71	115	35.35
	22.6	1.2		101.0
	45.3	0.66		21.40
	58.7	0.53		14.78
	62.1	0.68		15.96
20	68.8	0.64		13.95
	85.6	0.55		9.81
	66.1	1.41		22.39
	73.5	1.07		17.66
	85.5	1.37		17.17
	98.9	1.94		17.83
	97.1	1.11		13.50
	77	1.07		17.67
	73.4	0.65		14.79
	47.2	2.67		101.0
30	35.4	1.98	125	101.0
	36.3	2.13		101.0
	58.7	2.2		101.0
	80	1.21		19.28
	53.1	3.16		101.0
	52.9	3.13		101.0
	52.2	3		101.0
	76.3	4.2		101.0
	40.2	2.59		101.0
	55.2	3.46		101.0
40	63	3.62		101.0
	47.9	3.17		101.0
	33.4	1.92		101.0
	38.9	2.2		101.0
	38.6	2.49		101.0
	48.2	2.6		101.0
	41.3	2.44		101.0
	41.8	2.67		101.0
	151.1	3.4		18.57
	529.4	4.05		2.47
50	593.8	5.93		3.33
60				
70				



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_CPT-2.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=
Hole No.=CPT-2
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=CPT-2
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	30.10	0.12	105.00	0.00	0.50
2.00	54.50	0.54	105.00	0.00	0.50
3.00	40.30	0.37	105.00	0.00	0.50
4.00	36.60	0.39	105.00	0.00	0.50
5.00	18.80	0.24	105.00	0.00	0.50
6.00	56.80	0.33	105.00	0.00	0.50
7.00	153.90	0.98	105.00	0.00	0.50
8.00	134.40	1.19	105.00	0.00	0.50
9.00	139.90	0.87	105.00	0.00	0.50
10.00	141.20	0.92	105.00	0.00	0.50

11.00	62.00	0.47	105.00	0.00	0.50
12.00	20.90	0.65	105.00	0.00	0.50
13.00	22.60	0.32	105.00	0.00	0.50
14.00	26.20	0.45	105.00	0.00	0.50
15.00	25.70	0.71	115.00	0.00	0.50
16.00	22.60	1.20	115.00	0.00	0.50
17.00	45.30	0.66	115.00	0.00	0.50
18.00	58.70	0.53	115.00	0.00	0.50
19.00	62.10	0.68	115.00	0.00	0.50
20.00	68.80	0.64	115.00	0.00	0.50
21.00	85.60	0.55	115.00	0.00	0.50
22.00	66.10	1.41	115.00	0.00	0.50
23.00	73.50	1.07	115.00	0.00	0.50
24.00	85.50	1.37	115.00	0.00	0.50
25.00	98.90	1.94	115.00	0.00	0.50
26.00	97.10	1.11	115.00	0.00	0.50
27.00	77.00	1.07	115.00	0.00	0.50
28.00	73.40	0.65	115.00	0.00	0.50
29.00	47.20	2.67	115.00	0.00	0.50
30.00	35.40	1.98	125.00	0.00	0.50
31.00	36.30	2.13	125.00	0.00	0.50
32.00	58.70	2.20	125.00	0.00	0.50
33.00	80.00	1.21	125.00	0.00	0.50
34.00	53.10	3.16	125.00	0.00	0.50
35.00	52.90	3.13	125.00	0.00	0.50
36.00	52.20	3.00	125.00	0.00	0.50
37.00	76.30	4.20	125.00	0.00	0.50
38.00	40.20	2.59	125.00	0.00	0.50
39.00	55.20	3.46	125.00	0.00	0.50
40.00	63.00	3.62	125.00	0.00	0.50
41.00	47.90	3.17	125.00	0.00	0.50
42.00	33.40	1.92	125.00	0.00	0.50
43.00	38.90	2.20	125.00	0.00	0.50
44.00	38.60	2.49	125.00	0.00	0.50
45.00	48.20	2.60	125.00	0.00	0.50
46.00	41.30	2.44	125.00	0.00	0.50
47.00	41.80	2.67	125.00	0.00	0.50
48.00	151.10	3.40	125.00	0.00	0.50
49.00	529.40	4.05	125.00	0.00	0.50
50.00	593.80	5.93	125.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=2.80 in.
Settlement of Unsaturated Sands=0.54 in.
Total Settlement of Saturated and Unsaturated Sands=3.35 in.
Differential Settlement=1.674 to 2.210 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.56	5.00	2.80	0.54	3.35
1.00	0.87	0.55	5.00	2.80	0.54	3.35
2.00	0.78	0.55	5.00	2.80	0.54	3.34
3.00	0.30	0.55	5.00	2.80	0.53	3.34
4.00	0.23	0.55	5.00	2.80	0.42	3.22
5.00	0.15	0.55	5.00	2.80	0.30	3.10
6.00	0.26	0.55	5.00	2.80	0.16	2.96
7.00	2.09	0.55	5.00	2.80	0.13	2.93
8.00	1.19	0.55	5.00	2.80	0.12	2.92
9.00	1.13	0.54	5.00	2.80	0.08	2.89

10.00	1.00	0.54	1.84	2.80	0.00	2.80
11.00	0.21	0.57	0.37*	2.69	0.00	2.69
12.00	2.00	0.60	5.00	2.53	0.00	2.53
13.00	0.16	0.62	0.25*	2.46	0.00	2.46
14.00	0.18	0.65	0.28*	2.29	0.00	2.29
15.00	0.53	0.67	0.79*	2.21	0.00	2.21
16.00	2.00	0.69	5.00	2.21	0.00	2.21
17.00	0.18	0.70	0.25*	2.14	0.00	2.14
18.00	0.17	0.72	0.23*	1.95	0.00	1.95
19.00	0.18	0.73	0.25*	1.75	0.00	1.75
20.00	0.18	0.75	0.25*	1.55	0.00	1.55
21.00	0.20	0.76	0.26*	1.36	0.00	1.36
22.00	0.28	0.77	0.36*	1.19	0.00	1.19
23.00	0.22	0.78	0.29*	1.04	0.00	1.04
24.00	0.27	0.79	0.34*	0.88	0.00	0.88
25.00	0.36	0.80	0.46*	0.75	0.00	0.75
26.00	0.25	0.80	0.31*	0.61	0.00	0.61
27.00	0.21	0.81	0.26*	0.44	0.00	0.44
28.00	0.17	0.82	0.20*	0.26	0.00	0.26
29.00	2.00	0.83	5.00	0.17	0.00	0.17
30.00	2.00	0.83	5.00	0.17	0.00	0.17
31.00	2.00	0.83	5.00	0.17	0.00	0.17
32.00	2.00	0.83	5.00	0.17	0.00	0.17
33.00	0.20	0.82	0.25*	0.09	0.00	0.09
34.00	2.00	0.82	5.00	0.03	0.00	0.03
35.00	2.00	0.82	5.00	0.03	0.00	0.03
36.00	2.00	0.82	5.00	0.03	0.00	0.03
37.00	2.00	0.81	5.00	0.03	0.00	0.03
38.00	2.00	0.81	5.00	0.03	0.00	0.03
39.00	2.00	0.80	5.00	0.03	0.00	0.03
40.00	2.00	0.80	5.00	0.03	0.00	0.03
41.00	2.00	0.80	5.00	0.03	0.00	0.03
42.00	2.00	0.79	5.00	0.03	0.00	0.03
43.00	2.00	0.79	5.00	0.03	0.00	0.03
44.00	2.00	0.78	5.00	0.03	0.00	0.03
45.00	2.00	0.78	5.00	0.03	0.00	0.03
46.00	2.00	0.77	5.00	0.03	0.00	0.03
47.00	2.00	0.77	5.00	0.03	0.00	0.03
48.00	0.40	0.76	0.53*	0.01	0.00	0.01
49.00	2.41	0.75	3.20	0.00	0.00	0.00
50.00	2.40	0.75	3.21	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm Cyclic resistance ratio from soils

CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)

F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf

S_sat Settlement from saturated sands

S_dry Settlement from Unsaturated Sands

S_all Total Settlement from Saturated and Unsaturated Sands

NoLiq No-Liquefy Soils

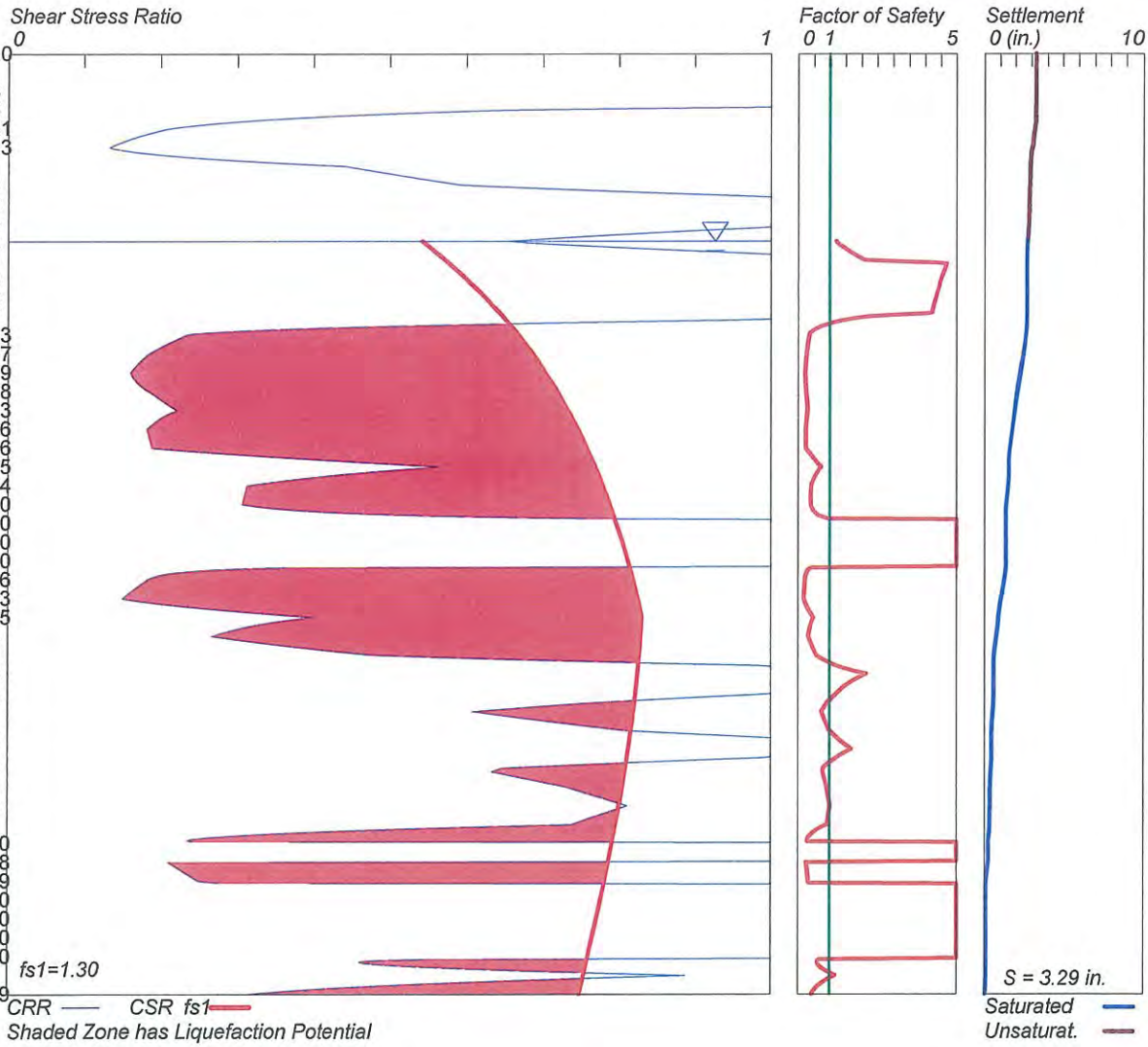
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=CPT-3 Water Depth=10 ft

Magnitude=6.76
Acceleration=0.658g

(ft)	Raw qc	fc	Unit Weight	Fines %
0	122.1	1	105	101.0
	139.6	1.45		2.73
	58.1	0.72		9.26
	28.3	0.41		18.21
	20.5	0.16		18.23
	78.9	0.43		4.91
	96.5	0.59		4.69
	138.7	0.84		3.10
	141.7	1.17		4.73
10	118.9	0.86		5.32
	158	0.86		2.81
	484.8	3.56		0.24
	477.1	4.63		1.52
	191.3	1.56		4.27
	47.5	0.92	115	22.83
	44.9	0.68		21.47
	36.1	0.51		24.09
	32.2	0.56		28.38
	37.3	0.76		28.43
20	42.1	0.7		24.86
	45.1	0.77		24.56
	72.3	2.4		26.55
	71.9	1.63		22.34
	71.1	1.62		22.80
	50.7	2.18		101.0
	37.4	1.93		101.0
	37.5	1.7		101.0
	75.8	0.82		15.96
	68.7	0.5		14.33
30	101.8	2.4	125	20.45
	126.4	1.07		9.94
	179	1.7		8.16
	328.2	2.66		3.86
	269.5	2.55		5.78
	229	1.23		4.01
	259.9	1.66		4.16
	321.7	1.9		2.83
	247.2	1.43		4.15
	241.6	2.78		8.11
40	253.3	3.15		8.42
	251.9	2.85		7.91
	56.7	1.57		101.0
	62.7	1.3		27.68
	74.4	1.73		26.79
	72	2.81		101.0
	80.7	3.67		101.0
	98.5	3.83		101.0
	80.8	3.86		101.0
	299.2	3.86		8.32
50	139.3	2.8		18.49



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_CPT-3.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=
Hole No.=CPT-3
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=CPT-3
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	122.10	1.00	105.00	0.00	0.50
2.00	139.60	1.45	105.00	0.00	0.50
3.00	58.10	0.72	105.00	0.00	0.50
4.00	28.30	0.41	105.00	0.00	0.50
5.00	20.50	0.16	105.00	0.00	0.50
6.00	78.90	0.43	105.00	0.00	0.50
7.00	96.50	0.59	105.00	0.00	0.50
8.00	138.70	0.84	105.00	0.00	0.50
9.00	141.70	1.17	105.00	0.00	0.50
10.00	118.90	0.86	105.00	0.00	0.50

11.00	158.00	0.86	105.00	0.00	0.50
12.00	484.80	3.56	105.00	0.00	0.50
13.00	477.10	4.63	105.00	0.00	0.50
14.00	191.30	1.56	105.00	0.00	0.50
15.00	47.50	0.92	115.00	0.00	0.50
16.00	44.90	0.68	115.00	0.00	0.50
17.00	36.10	0.51	115.00	0.00	0.50
18.00	32.20	0.56	115.00	0.00	0.50
19.00	37.30	0.76	115.00	0.00	0.50
20.00	42.10	0.70	115.00	0.00	0.50
21.00	45.10	0.77	115.00	0.00	0.50
22.00	72.30	2.40	115.00	0.00	0.50
23.00	71.90	1.63	115.00	0.00	0.50
24.00	71.10	1.62	115.00	0.00	0.50
25.00	50.70	2.18	115.00	0.00	0.50
26.00	37.40	1.93	115.00	0.00	0.50
27.00	37.50	1.70	115.00	0.00	0.50
28.00	75.80	0.82	115.00	0.00	0.50
29.00	68.70	0.50	115.00	0.00	0.50
30.00	101.80	2.40	125.00	0.00	0.50
31.00	126.40	1.07	125.00	0.00	0.50
32.00	179.00	1.70	125.00	0.00	0.50
33.00	328.20	2.66	125.00	0.00	0.50
34.00	269.50	2.55	125.00	0.00	0.50
35.00	229.00	1.23	125.00	0.00	0.50
36.00	259.90	1.66	125.00	0.00	0.50
37.00	321.70	1.90	125.00	0.00	0.50
38.00	247.20	1.43	125.00	0.00	0.50
39.00	241.60	2.78	125.00	0.00	0.50
40.00	253.30	3.15	125.00	0.00	0.50
41.00	251.90	2.85	125.00	0.00	0.50
42.00	56.70	1.57	125.00	0.00	0.50
43.00	62.70	1.30	125.00	0.00	0.50
44.00	74.40	1.73	125.00	0.00	0.50
45.00	72.00	2.81	125.00	0.00	0.50
46.00	80.70	3.67	125.00	0.00	0.50
47.00	98.50	3.83	125.00	0.00	0.50
48.00	80.80	3.86	125.00	0.00	0.50
49.00	299.20	3.86	125.00	0.00	0.50
50.00	139.30	2.80	125.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=2.75 in.
Settlement of Unsaturated Sands=0.54 in.
Total Settlement of Saturated and Unsaturated Sands=3.29 in.
Differential Settlement=1.644 to 2.170 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.56	5.00	2.75	0.54	3.29
1.00	2.71	0.55	5.00	2.75	0.54	3.29
2.00	2.71	0.55	5.00	2.75	0.54	3.29
3.00	0.65	0.55	5.00	2.75	0.54	3.28
4.00	0.21	0.55	5.00	2.75	0.47	3.22
5.00	0.13	0.55	5.00	2.75	0.32	3.07
6.00	0.44	0.55	5.00	2.75	0.19	2.93
7.00	0.59	0.55	5.00	2.75	0.15	2.90
8.00	1.29	0.55	5.00	2.75	0.12	2.87
9.00	1.17	0.54	5.00	2.75	0.09	2.84

10.00	0.65	0.54	1.21	2.75	0.00	2.75
11.00	1.19	0.57	2.09	2.71	0.00	2.71
12.00	2.71	0.60	4.52	2.71	0.00	2.71
13.00	2.71	0.62	4.34	2.71	0.00	2.71
14.00	1.45	0.65	2.24	2.71	0.00	2.71
15.00	0.23	0.67	0.35*	2.62	0.00	2.62
16.00	0.18	0.69	0.27*	2.46	0.00	2.46
17.00	0.16	0.70	0.23*	2.27	0.00	2.27
18.00	0.19	0.72	0.26*	2.09	0.00	2.09
19.00	0.22	0.73	0.30*	1.94	0.00	1.94
20.00	0.18	0.75	0.24*	1.78	0.00	1.78
21.00	0.19	0.76	0.25*	1.61	0.00	1.61
22.00	0.56	0.77	0.73*	1.53	0.00	1.53
23.00	0.31	0.78	0.40*	1.48	0.00	1.48
24.00	0.31	0.79	0.39*	1.36	0.00	1.36
25.00	2.00	0.80	5.00	1.33	0.00	1.33
26.00	2.00	0.80	5.00	1.33	0.00	1.33
27.00	2.00	0.81	5.00	1.33	0.00	1.33
28.00	0.18	0.82	0.22*	1.23	0.00	1.23
29.00	0.15	0.83	0.18*	1.02	0.00	1.02
30.00	0.40	0.83	0.48*	0.87	0.00	0.87
31.00	0.27	0.83	0.32*	0.74	0.00	0.74
32.00	0.48	0.83	0.58*	0.60	0.00	0.60
33.00	1.77	0.82	2.15	0.56	0.00	0.56
34.00	1.03	0.82	1.26	0.56	0.00	0.56
35.00	0.61	0.82	0.74*	0.52	0.00	0.52
36.00	0.81	0.82	0.99*	0.44	0.00	0.44
37.00	1.37	0.81	1.69	0.43	0.00	0.43
38.00	0.65	0.81	0.80*	0.40	0.00	0.40
39.00	0.73	0.80	0.91*	0.35	0.00	0.35
40.00	0.81	0.80	1.01	0.33	0.00	0.33
41.00	0.74	0.80	0.93*	0.31	0.00	0.31
42.00	2.00	0.79	5.00	0.21	0.00	0.21
43.00	0.21	0.79	0.27*	0.21	0.00	0.21
44.00	0.25	0.78	0.32*	0.08	0.00	0.08
45.00	2.00	0.78	5.00	0.06	0.00	0.06
46.00	2.00	0.77	5.00	0.06	0.00	0.06
47.00	2.00	0.77	5.00	0.06	0.00	0.06
48.00	2.00	0.76	5.00	0.06	0.00	0.06
49.00	0.89	0.75	1.18	0.05	0.00	0.05
50.00	0.32	0.75	0.42*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm Cyclic resistance ratio from soils

CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)

F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf

S_sat Settlement from saturated sands

S_dry Settlement from Unsaturated Sands

S_all Total Settlement from Saturated and Unsaturated Sands

NoLiq No-Liquefy Soils

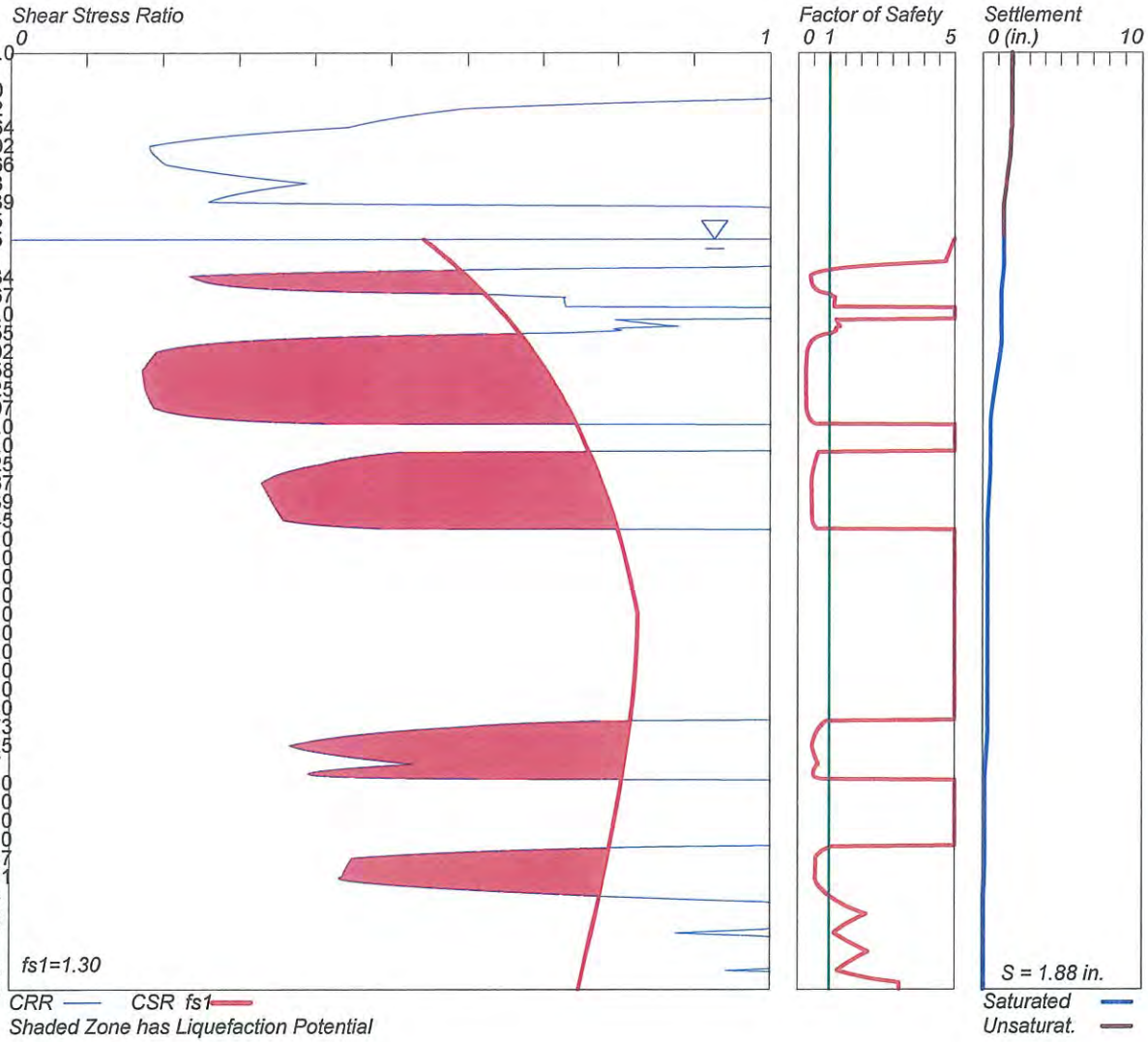
LIQUEFACTION ANALYSIS

LAUSD/ULYSSES S. GRANT HIGH SCHOOL

Hole No.=CPT-4 Water Depth=10 ft

Magnitude=6.76
Acceleration=0.658g

(ft)	Raw qc	fc	Unit Weight	Fines %
0	48.4	0.49	105	101.0
	82.8	0.54		2.60
	57	0.64		8.72
	51.4	0.76		12.64
	27.8	0.37		18.92
	44.7	0.33		10.66
	79.7	0.44		5.38
	50.9	0.71		15.39
	334.2	2.6		1.05
10	279.3	1.67		0.75
	257	1.18		0.31
	39.7	0.82		24.34
	26.4	0.81		34.67
	27.9	1.04		101.0
	32.4	1.05	115	34.55
	40.7	0.7		24.02
	39.8	0.61		23.58
	40.2	0.64		24.25
	39.2	0.69		26.07
20	30.8	0.84		101.0
	34.6	1.02		101.0
	44.4	1.27		31.25
	53.5	1.41		27.87
	53.8	1.45		28.39
	55.9	1.54	120	28.45
	37	1.3		101.0
	22.5	1.14		101.0
	13	0.85		101.0
	33.1	1.6		101.0
30	45.2	1.38		101.0
	34.6	1.98		101.0
	45.6	2.11		101.0
	63.6	2.73		101.0
	77.6	3.17		101.0
	51	3.16	125	101.0
	103.3	3.49		25.73
	123.7	2.55		18.25
	201.3	2.35		9.37
	57	3.25		101.0
40	45.5	2.62		101.0
	67.9	3.22		101.0
	96.9	5.06		101.0
	126.3	3.45		21.97
	134.2	3.44		20.71
	282.2	2.59		6.24
	395.7	3.6		4.43
	314.9	2.7		5.37
	389.1	5.11		6.81
	309.8	3.86		7.85
50	566.3	4.94		2.85
60				
70				



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381009\DSA\Project Documents\Liquefaction\209381009_CPT-4.liq
Title: LAUSD/ULYSSES S. GRANT HIGH SCHOOL
Subtitle: 209381009

Surface Elev.=
Hole No.=CPT-4
Depth of Hole= 50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.76

Input Data:
Surface Elev.=
Hole No.=CPT-4
Depth of Hole=50.00 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 91.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.76

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	48.40	0.49	105.00	0.00	0.50
2.00	82.80	0.54	105.00	0.00	0.50
3.00	57.00	0.64	105.00	0.00	0.50
4.00	51.40	0.76	105.00	0.00	0.50
5.00	27.80	0.37	105.00	0.00	0.50
6.00	44.70	0.33	105.00	0.00	0.50
7.00	79.70	0.44	105.00	0.00	0.50
8.00	50.90	0.71	105.00	0.00	0.50
9.00	334.20	2.60	105.00	0.00	0.50
10.00	279.30	1.67	105.00	0.00	0.50

11.00	257.00	1.18	105.00	0.00	0.50
12.00	39.70	0.82	105.00	0.00	0.50
13.00	26.40	0.81	105.00	0.00	0.50
14.00	27.90	1.04	105.00	0.00	0.50
15.00	32.40	1.05	115.00	0.00	0.50
16.00	40.70	0.70	115.00	0.00	0.50
17.00	39.80	0.61	115.00	0.00	0.50
18.00	40.20	0.64	115.00	0.00	0.50
19.00	39.20	0.69	115.00	0.00	0.50
20.00	30.80	0.84	115.00	0.00	0.50
21.00	34.60	1.02	115.00	0.00	0.50
22.00	44.40	1.27	115.00	0.00	0.50
23.00	53.50	1.41	115.00	0.00	0.50
24.00	53.80	1.45	115.00	0.00	0.50
25.00	55.90	1.54	120.00	0.00	0.50
26.00	37.00	1.30	120.00	0.00	0.50
27.00	22.50	1.14	120.00	0.00	0.50
28.00	13.00	0.85	120.00	0.00	0.50
29.00	33.10	1.60	120.00	0.00	0.50
30.00	45.20	1.38	120.00	0.00	0.50
31.00	34.60	1.98	120.00	0.00	0.50
32.00	45.60	2.11	120.00	0.00	0.50
33.00	63.60	2.73	120.00	0.00	0.50
34.00	77.60	3.17	120.00	0.00	0.50
35.00	51.00	3.16	125.00	0.00	0.50
36.00	103.30	3.49	125.00	0.00	0.50
37.00	123.70	2.55	125.00	0.00	0.50
38.00	201.30	2.35	125.00	0.00	0.50
39.00	57.00	3.25	125.00	0.00	0.50
40.00	45.50	2.62	125.00	0.00	0.50
41.00	67.90	3.22	125.00	0.00	0.50
42.00	96.90	5.06	125.00	0.00	0.50
43.00	126.30	3.45	125.00	0.00	0.50
44.00	134.20	3.44	125.00	0.00	0.50
45.00	282.20	2.59	125.00	0.00	0.50
46.00	395.70	3.60	125.00	0.00	0.50
47.00	314.90	2.70	125.00	0.00	0.50
48.00	389.10	5.11	125.00	0.00	0.50
49.00	309.80	3.86	125.00	0.00	0.50
50.00	566.30	4.94	125.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=1.32 in.
Settlement of Unsaturated Sands=0.56 in.
Total Settlement of Saturated and Unsaturated Sands=1.88 in.
Differential Settlement=0.940 to 1.241 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.56	5.00	1.32	0.56	1.88
1.00	2.71	0.55	5.00	1.32	0.56	1.88
2.00	2.13	0.55	5.00	1.32	0.55	1.88
3.00	0.60	0.55	5.00	1.32	0.55	1.88
4.00	0.44	0.55	5.00	1.32	0.53	1.86
5.00	0.18	0.55	5.00	1.32	0.47	1.80
6.00	0.20	0.55	5.00	1.32	0.36	1.68
7.00	0.39	0.55	5.00	1.32	0.20	1.53
8.00	0.26	0.55	5.00	1.32	0.04	1.37
9.00	2.71	0.54	5.00	1.32	0.01	1.33

10.00	2.71	0.54	5.00	1.32	0.00	1.32
11.00	2.71	0.57	4.74	1.32	0.00	1.32
12.00	0.24	0.60	0.40*	1.27	0.00	1.27
13.00	0.66	0.62	1.05	1.18	0.00	1.18
14.00	2.00	0.65	5.00	1.18	0.00	1.18
15.00	0.73	0.67	1.09	1.18	0.00	1.18
16.00	0.19	0.69	0.28*	1.10	0.00	1.10
17.00	0.17	0.70	0.25*	0.92	0.00	0.92
18.00	0.18	0.72	0.25*	0.74	0.00	0.74
19.00	0.19	0.73	0.26*	0.57	0.00	0.57
20.00	2.00	0.75	5.00	0.47	0.00	0.47
21.00	2.00	0.76	5.00	0.47	0.00	0.47
22.00	0.41	0.77	0.53*	0.46	0.00	0.46
23.00	0.33	0.78	0.42*	0.42	0.00	0.42
24.00	0.34	0.79	0.44*	0.34	0.00	0.34
25.00	0.36	0.80	0.45*	0.28	0.00	0.28
26.00	2.00	0.80	5.00	0.27	0.00	0.27
27.00	2.00	0.81	5.00	0.27	0.00	0.27
28.00	2.00	0.82	5.00	0.27	0.00	0.27
29.00	2.00	0.82	5.00	0.27	0.00	0.27
30.00	2.00	0.83	5.00	0.27	0.00	0.27
31.00	2.00	0.83	5.00	0.27	0.00	0.27
32.00	2.00	0.83	5.00	0.27	0.00	0.27
33.00	2.00	0.82	5.00	0.27	0.00	0.27
34.00	2.00	0.82	5.00	0.27	0.00	0.27
35.00	2.00	0.82	5.00	0.27	0.00	0.27
36.00	0.60	0.82	0.73*	0.27	0.00	0.27
37.00	0.37	0.81	0.45*	0.23	0.00	0.23
38.00	0.53	0.81	0.65*	0.14	0.00	0.14
39.00	2.00	0.80	5.00	0.08	0.00	0.08
40.00	2.00	0.80	5.00	0.08	0.00	0.08
41.00	2.00	0.80	5.00	0.08	0.00	0.08
42.00	2.00	0.79	5.00	0.08	0.00	0.08
43.00	0.45	0.79	0.57*	0.08	0.00	0.08
44.00	0.44	0.78	0.56*	0.06	0.00	0.06
45.00	0.75	0.78	0.97*	0.01	0.00	0.01
46.00	1.66	0.77	2.16	0.00	0.00	0.00
47.00	0.88	0.77	1.15	0.00	0.00	0.00
48.00	1.69	0.76	2.23	0.00	0.00	0.00
49.00	0.94	0.75	1.25	0.00	0.00	0.00
50.00	2.40	0.75	3.21	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm Cyclic resistance ratio from soils

CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)

F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf

S_sat Settlement from saturated sands

S_dry Settlement from Unsaturated Sands

S_all Total Settlement from Saturated and Unsaturated Sands

NoLiq No-Liquefy Soils

APPENDIX E

BEARING CAPACITY ANALYSIS

Estimate bearing capacity and soil dynamic settlement for strip footing in liquefiable soil

LAUSD/Ulysses S. Grant High School, Project No. 209381009

Reference: Bouckovalas, G. and Dakoulas, P., 2007, Liquefaction performance of shallow foundations in presence of a soil crust, 4th ICEGE Invited Lecture, edited by K.D. Pitilakis

Input design parameters

Footing width, B (ft) =	4		
Footing contact pressure, q (psf) =		4000	
Soil Crust, Cu (psf) =	2000		
Soil Crust, Thickness H (ft) =	12		
Soil Crust, buoyant unit weight γ' (pcf) =		42.6	Soil Crust total unit weight (pcf) = 105
Liqufiable soil, ϕ_o (deg) =	34		
Thickness of liquefied soil, Z (ft)=	18		
Liqufiable soil, $\sigma_{vo'}$ at depth B below soil crust (psf) =		1430.4	
Liqufiable soil, $\Delta\sigma_v$ induced by q at depth B below soil crust (psf) =		550	
Estimated dynamic settlement , ρ_{dyn} (ft) =		0.048	

Design seismic parameters:

PGA, a_{max} (ft/s^2) =	21.2
Number of cycles, N =	8.7
Predominant period, T (sec) =	0.3

Iterative Calculations

3rd Run			2nd Run			1st Run		
a = 1-250(ρ_{dyn}/B)^2 =		0.964	a = 1-250(rdyn/B)^2 =		0.999938	a = 1-250(rdyn/B)^2 =		-1.75625
U =	0.848138		U =	0.861117		U =	-0.13425	
ϕ =	5.85	(deg)	f =	5.351738	(deg)	f =	37.41822	(deg)
$N_{\gamma-\phi}$ =	0.6		Ng-f =	0.5		Ng-f =	71.7	
$N_{q-\phi}$ =	1.8		Nq-f =	1.6		Nq-f =	45.7	
FS^cdeg =	3.11502		FScdeg =	3.08733		FScdeg =	10.23987	
FSdeg =	2.57		FSdeg =	2.57		FSdeg =	2.57	
ρ_o =	0.815764	(ft)	ro =	0.815764	(ft)	ro =	0.815764	(ft)
ρ_{dyn} =	0.047634	(ft)	rdyn =	0.048709	(ft)	rdyn =	0.002431	(ft)
	0.571602	(inch)						

Appendix E

Site Assessment Report (Waterstone Environmental, Inc.)

E-1 - Preliminary Environmental Assessment

E-2 - Remedial Action Plan

Phase I Environmental Assessment Report

Ulysses S. Grant Senior High
13000 Oxnard Street
Los Angeles, California 91401

July 25, 2016 **Project: 16-145**

Prepared for: Los Angeles Unified School District
Office of Environmental Health & Safety
333 South Beaudry Street, 21st Floor
Los Angeles, California 90017-5156

Prepared by:

Waterstone Environmental, Inc.
2936 East Coronado Street
Anaheim, California 92806
(714) 414-1122; Fax (714) 414-1166

Proprietary Notice:

The report and its contents are PRIVILEGED AND CONFIDENTIAL INFORMATION. This document should not be duplicated or copied under any circumstances without the express permission of Waterstone Environmental, Inc. The purpose of the report is to allow the client listed above to evaluate the potential environmental liabilities at the Site. Any unauthorized reuse of Waterstone Environmental Inc. reports or data will be at the unauthorized user's sole risk and liability.

Phase I Environmental Assessment Report

Ulysses S. Grant Senior High
13000 Oxnard Street
Los Angeles, California 91401

July 25, 2016 **Project: 16-145**

Prepared by:

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Executive Summary

Waterstone Environmental, Inc. ("Waterstone") was retained by the Los Angeles Unified School District (LAUSD) to perform a Phase I Environmental Site Assessment ("Phase I ESA") in general accordance with the requirements of ASTM Standard E 1527-13 for the property located at 13000 Oxnard Street in Los Angeles, California ("Site"). The sole purpose of this environmental assessment is to identify Recognized Environmental Conditions ("REC") for the Site. The Phase I ESA investigation consisted of the following:

- **Visual Inspection** - A visual evaluation of the Site was conducted in readily accessible areas to identify RECs. Additionally, visual observations of adjoining properties were made from the vantage point of the Site as well as from public right-of-ways to determine the potential impact of these sites on the Site.
- **Site Interview** - Interviews were conducted with individuals knowledgeable and familiar with the Site.
- **Records Review** - Available environmental reports, agency records, building department permits, Sanborn Maps, historical aerial photographs, and topographical maps of the Site and surrounding areas were reviewed.
- **Agency Document Review** - Appropriate regulatory agencies were contacted for information regarding hazardous materials use, storage, and/or releases at the Site.
- **Published Database Review** - Published governmental agency databases were reviewed to identify properties within ASTM-specified radii of the Site with a reported environmental concern or incident. Waterstone subcontracts the government agency database search to Environmental Data Resources, Inc. ("EDR").
- **Additional Regulatory Review - A**ppropriate regulatory agencies were contacted and available records for properties that may negatively impact the Site were reviewed.
- **Report Preparation** - A summary report was prepared of the environmental assessment findings and conclusions.
- **Environmental Professional** – All Site inquiry was conducted by an environmental professional or under the supervision of an environmental professional.

The findings of the Phase I ESA are summarized in the following sections:

Setting

The Site is situated near latitude 34.177452 (north) and longitude 118.416281 (west) at an approximate elevation of 673 feet above mean sea level. The topography of the Site and vicinity is generally flat, but slopes gently to the south, as shown in the Van Nuys, California USGS Topographic Map.

According to the EDR Report Physical Settings Source Summary, groundwater in the vicinity of the Site is expected to flow to the south. Based on monitoring reports prepared for a nearby

property located approximately 2.2 miles northeast of the Site (11600 Sherman Way in North Hollywood), groundwater is expected to be encountered at approximately 260 feet below ground surface (bgs) with a perched zone at 60 feet bgs, and flow to the south.

Regulatory Database Review

An investigation of the government environmental databases related to the Site and the nearby area was conducted to identify potential RECs that may be recorded in government database systems or files. The information pertaining to the sites on the regulatory databases was obtained from the *EDR Radius Map with GeoCheck* provided by EDR. The Site address was listed in the HAZNET, RCRA–SQG (Small Quantity Generator), ECHO, FINDS, and EMI databases in the EDR Report. These listings are summarized as follows:

- According to the HAZNET listings, the following was manifested for off-site disposal from **LAUSD/Grant HS** under generator ID CAD982024739: (i) 235.963 tons of asbestos containing waste disposed of in 1997, 1999, 2000, 2004, 2005, 2007, 2008, 2009, and 2011; (ii) 68.56 tons of other inorganic waste disposed of in 1996, 1999, 2003, 2005, 2006 and 2009; (iii) 2.55 tons of unspecific organic liquid mixture in 2007; (iv) 0.095 tons of laboratory waste chemicals disposed of in 1996, 2006, and 2007; (v) 1.89 tons of unspecified aqueous solution disposed of in 2006; (vi) 3.33 gallons of oil/water separation sludge disposed of in 2000; (vii) 0.0075 tons of organic solids or off-specifications, aged or surplus organics disposed of in 1996; (viii) 1.4595 tons of waste oil and mixed oil disposed of in 1993; and (ix) 16.02 tons of unspecified waste disposed of in 2007, 2012.
- According to the RCRA-LQG and ECHO listings, **LAUSD Grant High School** is an active small quantity generator with no RCRA violations noted. The FINDS database does not provide any additional information for the Site.
- According to the EMI listing, **LA Uni Sch Dist, Grant High Sc** had a permit through the South Coast AQMD in 1990 for unlisted emissions.

One (1) federal, two (2) state, two (2) local or other, no (0) historical, and one (1) orphan listings are provided in the EDR Report’s summary of government databases. Based on case status, distance, and/or groundwater flow direction, these facilities are not likely to negatively affect the Site.

Site History

Based on information provided by aerial photographs, Sanborn Maps, City Directories, and local building department records, the following historical uses and operations of the Site should be noted:

- The Site was developed on land which was previously used for agricultural purposes since prior to 1920. The agricultural land included several residential dwellings which were present on the Site.

- By 1962, the Site was developed with several buildings and playfields for the Grant High School.
- Stockpiles of soil which were generated during project upgrades from 2008 through 2014 on the Site were sampled to determine their suitability for reuse per the LAUSD Section 01440 guidance. It was concluded that soil samples in four of the six sampling events contained organochlorine pesticides (OCPs) above their respective detection limits and were therefore unacceptable for reuse onsite or for export to another LAUSD site.
- The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room. Observations noted during an inspection included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.

Site Visit and Interview Summary

On June 29, 2016, Waterstone performed an inspection of the Site and vicinity. For the Site inspection, Waterstone interviewed Mr. Joe Bowler, the plant manager for the Site school. According to Mr. Bowler, the school serves as a local fueling spot for nearby schools. Three 55-gallon drums of gasoline are stored on concrete without secondary containment in the custodial/utility building. Minor staining was observed on the concrete floor, which appears to be in good condition. PCB-containing light ballasts, paint, film developing liquids, universal wastes, cleaning supplies, and expired chemicals awaiting disposal from science classrooms are additionally stored in the custodial/utility building. Auto hoists which were installed during two separate time frames were historically located in the auto shop. It is believed that the auto hoists are no longer present, but the auto shop was not accessible during the inspection. Copies of these plans are included in Appendix B.

Data Gaps

Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources, this data gap is not expected to alter the findings of this assessment.

It was not possible during the site visit to inspect the automotive shop, where hydraulic lifts have historically been located but are believed to be now removed.

Summary

The sole purpose of this environmental assessment is to identify Recognized Environmental Conditions ("REC") for the Site. This assessment was conducted utilizing generally accepted Phase I industry standards in accordance with the ASTM International Standard E 1527-13 – Phase I Environmental Site Assessment Process ("Standard").

For the purpose of this report, and as defined by the Standard, a REC "means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." *De minimis*

conditions are not RECs.

Based on the results of the investigation summarized in this report, our findings and conclusions are as follows:

The following RECs **were** identified for the Site:

- Due to the original construction dates of the Site buildings (early 1960s), it is possible that lead-based paint was used during the construction or maintenance of the buildings. The buildings are primarily clad with brick, but portions of the outside façade include painted surfaces.
- Due to the original construction dates of the Site buildings (early 1960s), it is possible that OCPs were applied to soil surrounding the foundations of buildings constructed from wood for termite control.
- Due to the historical use of the Site as agricultural fields prior to construction of the school, it is possible that OCPs were applied to the historical orchards for weed and pest control.
- Arsenic in soil underneath asphaltic concrete (AC) pavement may be present due to LAUSD's former standard practice of applying herbicides containing this metal prior to paving.
- Three 55-gallon drums of gasoline are stored in the custodial/utility building on the Site. The drums are stored on a concrete floor in good condition with no secondary containment. The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room following observations of accumulated gasoline residue on the shelves and floor.
- Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classrooms, and one is located outside Room 108 and is associated with the science classrooms. It was not confirmed how often the clarifiers are cleaned, but clarifier sludge was noted as a waste in the Unified Program documents from the Fire Department files.
- Auto hoists which were installed during two separate time frames were historically located in the auto shop. It is believed that the auto hoists are no longer present, but the auto shop was not accessible during the inspection and no documentation was available to indicate that the hoists had been removed and/or the area has been sampled.

RECs **were not** identified in connection with off-site properties.

Recommendations

Based on the foregoing, as well as representations made by individuals interviewed for this report, additional investigation is recommended for the Site:

- Prior to their demolition, the area around Site buildings should be assessed for lead based paint and OCPs in general accordance with the DTSC *Interim Guidance – Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers (June 9, 2006).*
- Due to the historical agricultural use of the Site, the areas to be redeveloped should be assessed for OCPs in accordance with the DTSC *Interim Guidance for Sampling Agricultural Properties (Third Revision) (August 7, 2008).*
- In locations of future construction covered by AC pavement, the possible presence arsenic in shallow soil at the site should be assessed.
- Due to the lack of secondary containment and history of housekeeping issues in the fuel storage area of custodial/utility building, this area should be assessed for potential total petroleum hydrocarbon (TPH) and volatile organic compound (VOC) impact prior to demolition.
- Due to a lack of information regarding the historical use of the two three-compartment clarifiers at the Site, these areas should be assessed for potential VOC and metals impact prior to demolition.
- Prior to the buildings demolition, it should be determined if the auto hoists located in the auto shop building on the Site are still present. Due to the lack of information regarding the history, and potential removal and environmental assessment of the auto hoists, this area would be also assessed for potential TPH and VOC impact.

Section 1.0
Introduction

1.1 Purpose

Waterstone Environmental, Inc. ("Waterstone") has been retained by the Los Angeles Unified School District (LAUSD) to prepare a Phase I Environmental Site Assessment ("Phase I") for the property located at 13000 Oxnard Street in the Valley Glen neighborhood of the City of Los Angeles, California ("Site," see Figure 1). The Site is currently occupied by Ulysses S. Grant High School (Grant HS).

The sole purpose of this environmental assessment is to identify Recognized Environmental Conditions ("REC") for the Site. This assessment was conducted utilizing generally accepted Phase I industry standards in accordance with the ASTM International Standard E 1527-13 – Phase I Environmental Site Assessment Process ("Standard").

For the purpose of this report, and as defined by the Standard, a REC "means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." *De minimis* conditions are not RECs.

1.2 Involved Parties

Waterstone has performed this Phase I ESA for LAUSD. As such, LAUSD is considered the "User" of the report, as defined under the Standard.

1.3 Scope of Work

The following scope of work was performed to accomplish the Phase I objectives:

- **Visual Inspection** - A visual evaluation of the Site was conducted in readily accessible areas to identify RECs. Additionally, visual observations of adjoining properties were made from the vantage point of the Site as well as from public right-of-ways to determine the potential impact of these sites on the Site.
- **Site Interview** - Interviews were conducted with individuals knowledgeable and familiar with the Site.
- **Records Review** - Available environmental reports, agency records, building department permits, Sanborn Maps, historical aerial photographs, and topographical maps of the Site and surrounding areas were reviewed.
- **Agency Document Review** - Appropriate regulatory agencies were contacted for information regarding hazardous materials use, storage, and/or releases at the Site.

- **Published Database Review -** Published governmental agency databases were reviewed to identify properties within the Standard-specified radii of the Site with a reported environmental concern or incident. Waterstone subcontracts the government agency database search to Environmental Data Resources, Inc. ("EDR").
- **Additional Regulatory Review -** Appropriate regulatory agencies were contacted and available records for properties that may negatively impact the Site were reviewed.
- **Report Preparation -** A summary report was prepared of the environmental assessment findings and conclusions.
- **Environmental Professional –** All Site inquiry was conducted by an environmental professional or under the supervision of an environmental professional.

1.4 Reliance

The Phase I Environmental Assessment was performed on behalf of LAUSD. The work was performed in accordance with the terms and conditions of the existing contract for the environmental evaluation of the Site for the exclusive use of LAUSD. This party intends to rely upon this report as an assessment of the existing physical condition of the Site for the purpose of deciding whether, and under what conditions, to proceed with an upgrade or redevelopment of the property. The aforementioned party may use and rely on this report provided that the parties agree to be bound by the same contractual terms and conditions imposed by aforementioned contract of engagement. Waterstone recommends that any authorized party intending to rely upon the report independently determine whether the scope of services meets their expectations.

Waterstone's professional services were performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable due-diligence professionals practicing in the Phase I Environmental Assessment due-diligence consulting field in this or similar localities at this time. No other warranty, expressed or implied, is made as to the professional opinions described in this report. Waterstone is not responsible or liable for any claims that are associated with the interpretation of the available information. Additionally, Waterstone is not responsible for any claims from third parties not associated with the User, unless this report is assigned in its entirety to a party acceptable to Waterstone.

Note: Waterstone exercised the usual and customary professional care in its efforts to assess property environmental law/code/regulation compliance. However, it is beyond the scope of a Phase I Environmental Assessment to provide definitive and thorough opinions regarding environmental legal compliance. Due to the existence of literally thousands of laws, codes, and regulations pertaining to the environment, Waterstone does not represent that any observations in this Phase I Environmental Assessment are a complete and definitive opinion regarding regulatory compliance.

Waterstone has based its assessment on prior Site histories, interviews, a review of available records, and observations of activities during a physical site inspection. Some or all of this information has been reported to Waterstone from several sources. Waterstone has relied on this reported information and data without further verification or validation of its accuracy.

1.5 Environmental Professional Statement

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Site. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. (See Appendix A for Environmental Professional Resume.)

1.6 Proprietary Notice

This document is privileged and confidential information and should not be duplicated or copied without the express permission of Waterstone Environmental, Inc. Any unauthorized reuse of Waterstone reports or data will be at the unauthorized user's sole risk and liability.

1.7 Limitations and Exceptions

If topics are not explicitly discussed within this document, the reader should not assume those topics have been investigated. For example, physical testing, other than that specifically detailed in this document, was not performed. The work performed in conjunction with this study and data developed are intended as a description of available information on the dates and at the locations described. This report does not warrant against future operations or conditions, nor does it warrant against:

- Operations which are not in evidence from visual observations or search of published agency records, or facts that were concealed, withheld, or not fully disclosed at the time the inspection was conducted.
- Conditions that could only be determined by physical sampling or intrusive testing.
- Conditions on locations other than the User-provided Site address and/or legal parcel description.

This report is not intended to address, assess, or otherwise determine whether soil or groundwater contamination, waste emplacement, existing or threatened mold/fungus growth, asbestos containing building materials, and/or lead-based paint actually exists at the Site. Such determination would require comprehensive subsurface exploration and/or other sampling activities, which were beyond the scope of service for this assessment. Additionally, this report does not serve as a comprehensive wetlands, mining, oil, pipeline, and/or gas well survey.

This report summarizes an environmental investigation conducted for the Site. Although conditions at neighboring properties may impact the Site and, to the extent they were identified, were included in the Site evaluation, this report does not serve as an assessment of sites other than the Site.

Section 2.0
User Provided Information

As part of this Phase I ESA, Waterstone requested certain information from the User in writing. However, Waterstone was not provided with a written response and the information requested and associated responses were obtained verbally during the site inspection, and are outlined in the remainder of this section and elsewhere in this report.

2.1 Reason for Performing the Phase I ESA

Waterstone understands that this assessment was performed for the User to evaluate potential property upgrades at the Site.

2.2 Title Records, Liens, and Property Use Limitations

Waterstone was not provided with title records by the User; however, Waterstone interviewed the User regarding property use limitations. The User was not aware of any environmental liens or Activity Use Limitations (AULs) for the Site.

With reference to AULs that are in place on the Site or that have been filed or recorded in a registry (40 CFR 312.26), the User has no knowledge of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state or local law.

2.3 Specialized Knowledge, Commonly Known & Degree of Obviousness

Waterstone interviewed the User who stated he had no specialized knowledge or experience related to the Site or nearby properties other than the information Waterstone has provided in this Phase I report which Waterstone previously discussed with the User.

With reference to commonly known or reasonably ascertainable information about the Site (40 CFR 312.30), the User was not aware (other than the information Waterstone has provided in this Phase I report which Waterstone previously discussed with the User) of any such items that would help the environmental professional to identify conditions indicative of releases or threatened releases, such as the historical past uses of the Site regarding the following:

1. Specific chemicals that are present or once were present at the Site;
2. Spills or other chemical releases that have taken place at the Site; and
3. Environmental cleanups that have taken place at the Site.

With reference to the degree of obviousness of the presence or likely presence of contamination at the Site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31), the User, based on knowledge and experience related to the Site, was not aware of any obvious indicators that point to the presence or likely presence of contamination at the Site other

than the information Waterstone has provided in this Phase I report which Waterstone previously discussed with the User.

Waterstone requested from the User any other specialized knowledge regarding the environmental conditions associated with the Site. The User did not have any specialized knowledge of RECs or other conditions of environmental concern at the Site other than the information Waterstone has provided in this Phase I report which Waterstone previously discussed with the User.

Section 3.0
General Site Characteristics

3.1 Site Ownership and Location General Description

The Site at 13000 Oxnard Street is currently occupied by Grant High School. The Site is owned by the Los Angeles Unified School District.

3.2 Adjacent Properties

The Site is located within a residential area of the Valley Glen neighborhood in Los Angeles, California (See Figure 1). At the time of the Site inspection, the properties adjacent to the Site were characterized as the following (see Figure 2):

North: Oxnard Street is immediately north of the Site. Residential properties and apartment complexes are farther north of the Site.

East: The Tujunga Wash and Greenbelt is immediately east of the Site. Coldwater Canyon Avenue and residential properties are farther east of the Site. A large-diameter pipeline with no apparent markings was observed crossing over the Tujunga Wash adjacent to the Site, and was only identified as a 25-foot water easement on the Department of Public Works Navigate LA website. A radio tower field is located approximately 0.25 miles southeast of the Site.

South: Athletic playfields and a stadium for the Los Angeles Valley College is immediately south of the Site. Burbank Boulevard and residential properties are farther south of the Site.

West: Ethel Avenue is immediately west of the Site. In order, the Los Angeles Valley College campus, Fulton Avenue and residential properties are farther west of the Site.

3.3 Site General Description

The Site at 13000 Oxnard Street is currently occupied by Grant High School. The southeastern portion of the property is occupied by the campus for Jack London High School, which is listed under the address 12924 Oxnard Street. Major Site characteristics are summarized as the following (see table on next page):

Site Characteristics Summary Table

Property Characteristics	Observations
Total Site Acreage	Approximately 32 acres
Total Number of Buildings and Description	Approximately ten (10) one and two story permanent classroom or office buildings clad with brick, and multiple one and two story bungalow classrooms throughout the school campus
Street Address	13000 Oxnard Street
County	Los Angeles County
Assessor's Parcel Number (APN)	2341-024-900
Distance to Major Landmark	The Site is approximately 1.1 miles west of Highway 170 and approximately 1.4 miles north of Highway 101.
Current Use	The Site is currently used as a senior high school.
Current Owners	Los Angeles Unified School District

The history and Site inspection observations are further discussed in Section 5.0.

3.4 Former Site Uses/Operations

The history and Site inspection observations are further discussed in Section 5.0 of this report. A brief summary of the former Site use/operations is provided as follows:

- The Site was developed on land which was previously used for agricultural purposes since prior to 1920. The agricultural land included several residential dwellings which were present on the Site.
- By 1962, the Site was developed with several buildings and playfields for the Grant High School.
- Stockpiles of soil which were generated during project upgrades from 2008 through 2014 on the Site were sampled to determine their suitability for reuse per the LAUSD Section 01440 guidance. It was concluded that soil samples in four of the six sampling events contained organochlorine pesticides (OCPs) above their respective detection limits and were therefore unacceptable for reuse onsite or for export to another LAUSD site.
- The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room. Observations noted during an inspection included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.

Section 4.0
Environmental Setting

The following summarizes the general environmental setting of the Site.

4.1 Regional Setting

The Site is situated near latitude 34.177452 (north) and longitude 118.416281 (west) at an approximate elevation of 673 feet above mean sea level. The topography of the Site and vicinity is generally flat, but slopes gently to the south, as shown in the Van Nuys, California USGS Topographic Map. A topographic map is provided in the Physical Source Settings Summary section of the EDR Radius Map report. The Site is not located within a 100-year or 500-year flood zone.

4.2 Soil Conditions

The Site is identified as urban land, as detailed in the Physical Source Settings Summary section of the EDR Radius Map report. No sampling was conducted a part of this Phase I.

4.3 General Geologic Conditions

The Site is located in Los Angeles County, within the northwestern portion of the Peninsular Ranges geomorphic physiographic province of California. According to the California Department of Conservation (California Geological Survey, California Geomorphic Provinces - Note 36), this area is described as follows:

> The Peninsular Ranges is a series of ranges separated by northwest trending valleys, sub-parallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is more like the Sierra Nevada, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert. The Los Angeles Basin and the island groups (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province.

No fault zones are identified on the Site or within one-mile of the Site in the EDR Report Physical Settings Source Summary.

4.4 Groundwater Conditions

The Site is located in Los Angeles County, within the San Fernando Valley Groundwater Basin (Basin No. 4-12). According to the California Department of Water Resources (Bulletin 118, updated 2003), this area is classified as:

> 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 the Simi Hills.
>
> The water-bearing sediments consist of the lower Pleistocene Saugus Formation, Pleistocene and Holocene age alluvium. The ground-water in this basin is mainly unconfined with some confinement within the Saugus Formation in the western part of the basin and in the Sylmar and Eagle Rock areas. Groundwater flows generally from the edges of the basin toward the middle of the basin, then beneath the Los Angeles River Narrows into the Central Subbasin of the Coastal Plain of Los Angeles Basin. In the northeastern part of the basin, groundwater moves from the La Crescenta area southward beneath the surface of Verdugo Canyon toward the Los Angeles River near Glendale, whereas the groundwater in the Tujunga area flows west following the Tujunga Wash around the Verdugo Mountains to join groundwater flowing from the west following the course of the Los Angeles River near Glendale.

According to the EDR Report Physical Settings Source Summary, groundwater in the vicinity of the Site is expected to flow to the south. Based on monitoring reports prepared for a nearby property located approximately 2.2 miles northeast of the Site (11600 Sherman Way in North Hollywood [Ramboll Environ, 2016]), groundwater is expected to be encountered at approximately 260 feet below ground surface (bgs) with a perched zone at 60 feet bgs, and flows to the south.

Section 5.0
Results of Investigation

5.1 Site Inspection Observations

On June 29, 2016, Waterstone performed an inspection of the Site and vicinity. For the Site inspection, Waterstone interviewed Mr. Joe Bowler, the plant manager for the Site school. Mr. Bowler's responses are included throughout this report. A plot plan of the Site buildings available to the public at the Administration desk can be found in Appendix B. Photographs are provided as Appendix C. At the time of the Site inspection, the following was observed at the Site:

Site Feature Summary Table

Feature / Characteristic	Y/N	Comments
Underground Storage Tanks (USTs)	N	A sub-surface grease trap was observed near the school kitchen.
Aboveground Storage Tanks (ASTs)	N	None observed.
Hazardous Chemicals (including petroleum and pesticides)	Y	Chemicals are primarily stored in the custodial/utility building; and include fuel, paint, film developing liquids, universal wastes, cleaning supplies, and expired chemicals awaiting disposal from science classrooms Small volumes of chemicals for instructional use are stored between classrooms in Building 100 (a list of the science chemical inventory is included in Appendix B and photographs are included in Appendix C). The school serves as a local fueling location for nearby schools. Three 55-gallon drums of gasoline are stored on concrete without secondary containment. Minor staining was observed on the concrete floor, which appears to be in good condition. PCB-containing light ballasts removed from the school are stored in the custodial building awaiting disposal. A paint spray booth was observed in Room 502 of the Industrial Arts building. The spray booth did not appear to be in active use and no active air permits were identified. It is possible that small amounts of pesticides, herbicides and/or fertilizers may be present in the classroom and greenhouse associated with the agricultural area in the northwestern corner of the Site, but these areas were not accessible during the time of the inspection.
Other or Unidentified Drums and Containers	N	None observed.
Septic Tanks	N	None observed.
Drainage Systems	N	Surface water storm drains were observed throughout the Site.
Sumps	N	None observed.
Clarifiers	Y	Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classrooms, and one is located outside Room 108 and is associated with the science

Site Feature Summary Table

Feature / Characteristic	Y/N	Comments
		classrooms. It was not confirmed how often the clarifiers are cleaned, but clarifier sludge was noted as a waste in the Unified Program documents from the Fire Department files.
Hoists or Lifts	Y	According to documents provided by the User, hoists are located in the auto shop. Mr. Bowler believes that the hoists have been removed, but the auto shop was not accessible during the inspection, so it was not possible to observe if the hoists are still present.
Dumping or Filling Activities	N	None observed.
Vapor Intrusion	N	No evidence observed.
Floor Drains	N	None observed.
Materials Spills	N	Minor staining was observed on the concrete floor around the compressor located in the boiler room. The floor appears to be in good condition.
Monitor/Supply/ Disposal Wells	N	None observed.
Odors	N	None noted.
Air Emissions	N	No potential sources noted.
Unusually Stained Pavement Or Flooring	N	None observed.
Pits, Ponds, Lagoons	N	None observed.
Pools Of Liquid	N	None observed.
Roads And Trails With No Apparent Purpose	N	None observed.
Stained Or Disturbed Soil	N	None observed.
Stressed Vegetation	N	None observed.
High Voltage Power Lines/ Magnetic Fields	N	None observed.
Waste Water Generation	N	None observed.
Solid Waste Storage	Y	Trash dumpsters for the school are located north of the baseball field, and hazardous wastes awaiting disposal are stored in the custodial building.
Electrical Transformers	Y	Approximately twenty (20) transformers are located throughout the school, located in electrical rooms and in small gated outdoor areas across the campus. There is a mix of larger transformers, dry type, and smaller step-down transformers. All transformers appear to be in good condition. A locked transformer compound which is maintained by Los Angeles Department of Water and Power and has a posted sign stating it is certified to be PCB free, is located north of the baseball field.
Evidence of Historical Features	N	None observed.
Evidence of Historical Processes Or Material Usage/Storage	N	None observed.

In addition, the following features were noted at the Site:

- One sub-surface vault was observed in the boiler room, located on the back side of the custodial building. According to Mr. Bowler, the vaults and machinery are associated with the old boiler and circulatory system which is no longer in use. The boiler is powered by natural gas and has never had an oil UST associated with it.

5.1.1 Historical Materials of Concern

Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) were used as coolants and insulators in electrical transformers beginning in 1929. Exposure to PCBs has since been found to cause liver ailments, skin lesions, tumors, and growth and reproductive problems. Use of PCBs was regulated in 1977. PCB-containing light ballasts removed from the school are stored in the custodial building awaiting disposal. Approximately twenty (20) transformers are located throughout the school, located in electrical rooms of the buildings and in small gated outdoor areas across the campus. There is a mix of larger transformers, dry type, and smaller step-down transformers. All transformers appear to be in good condition.

Lead-based Paint

Lead was a major ingredient in paint pigment prior to and through the 1940s. While other pigments were used in the 1950s, the use of lead in paint continued until the mid-1970s. In 1978, the Consumer Products Safety Commission banned paint and other surface coating materials, which are lead-containing.

The Site buildings were initially constructed in the early 1960s; therefore, it is possible that lead-based paint was used historically on the Site. The buildings are primarily clad with brick, but portions of the outside façade include painted surfaces.

Lead in Drinking Water

The USEPA sets drinking water standards and has determined that lead is a health concern at certain exposure levels. Materials that contain lead have frequently been used in the construction of water supply distribution systems, and plumbing systems in private home and other buildings. The most commonly found materials include service lines, pipes, brass and bronze fixtures, and solders and fluxes. Lead in these materials can contaminate drinking water as a result of the corrosion that takes place when water comes into contact with those materials.

EPA’s national primary drinking water regulations requires all public water systems to optimize corrosion control to minimize lead contamination results from the corrosion of plumbing materials. EPA has established an action level of 15 parts per billion (ppb) for lead in drinking water. Any water system that continues to exceed the action level after installation of corrosion control and/or source water treatment must eventually replace all lead service lines contributing in excess of 15 ppb of lead to drinking water. Any water system that exceeds the action level must also undertake a public education program to inform users of ways they can reduce their exposure to potentially high levels of lead in drinking water.

According to the City of Los Angeles Department of Water and Power, the water provided to their customers meets the Federal and state primary and secondary drinking water standards. No testing of drinking water at the Site was conducted for this report.

5.1.2 Utilities

According to the User, the following utilities service the area:

- Water – Los Angeles City Department of Water and Power
- Gas – Southern California Gas Company
- Electric – Los Angeles City Department of Water and Power
- Sewer – Los Angeles City Department of Water and Power

5.1.3 Oil and Gas Wells and Pipelines

Wells can act as potential conduits for the migration of contamination, unless they have been properly abandoned (i.e., filled and plugged) in such a manner as to prevent the transport of hazardous material into the groundwater aquifers. Oil or gas wells or pipelines were not identified on the Site during the Site inspection and were not listed in the EDR Physical Setting Source Map for this area of the City of Los Angeles. According to the EDR Radius Report, one (1) oil or gas well is located between one-half mile and one mile west of the Site. The presence of oil or gas wells in the vicinity of the Site is not necessarily indicative of a leak or spill which would negatively impact the Site.

5.1.4 Public Water Wells

No public water wells were observed on the Site during the Site inspection nor were they listed in the EDR Radius Map Report. One (1) State Database well is located within one mile west of the Site.

5.1.5 Sensitive Environmental Receptors

Primary concerns associated with sensitive receptors and wetlands are:

- Federal and state environmental regulations often limit an owner's ability to modify the Property when sensitive receptors or wetlands are potentially impacted; and
- The potential of a release or discharge from a facility impacting a sensitive receptor or wetland.

Sensitive environmental receptors, such as wetlands, historical landmarks, or endangered species were not identified at or within the Site or in the EDR Report.

5.1.6 Mold

Mold and/or fungi growth generally occurs on cellulose-based material, such as wood or drywall paper, that has been inundated with excess moisture. The presence of mold and/or fungi growth is normally an indication of a plumbing, roofing, other leak, and/or water source that results in the abnormal presence of moisture. It is possible that significant fungal spore growth inside walls, insulation, attic spaces, or other areas can exist and not be visible on the finished surfaces of a building's interior spaces. Waterstone did not (i) perform a mold/fungi inspection, (ii) perform any building material surface mold sampling, or (iii) perform air sampling for mold spores at the Site as part of this Phase I. Waterstone did not identify any obvious signs of mold growth at the Site in the areas observed during the Site inspection.

5.1.7 Engineering Controls

No engineering controls were observed at the Site.

5.2 Neighboring Property Inspection Observations

Visual observations of adjoining properties were made from the vantage point of the Site as well as from public right-of-ways to determine the potential impact of these sites on the Site. The following table summarizes neighboring property observations:

Neighboring Property Summary Table

Property Characteristics	Observations
Surrounding Property General Description	The Site is located in a residential area of the City of Los Angeles, California.
Neighboring Properties Listed In EDR Radius Report	None of the adjacent properties listed in the EDR Report are likely to negatively impact the Site.
Groundwater Monitoring Wells	Groundwater monitoring wells were not observed on adjacent properties; however, Waterstone did not enter adjacent properties to perform a thorough inspection.
Underground Features	No evidence of underground features was observed in the vicinity of the Site but Waterstone did not enter adjacent properties to perform a thorough inspection.
Evidence of Subsurface Investigation	No evidence of subsurface investigations was observed in the vicinity of the Site but Waterstone did not enter adjacent properties to perform a thorough inspection.

5.3 Results of Regulatory Agency List Review and File Search

An investigation of the government environmental databases related to the Site and the nearby area was conducted to identify potential RECs that may be recorded in government database systems or files. Properties that have or may have the potential for existing or future Site contamination, environmental liabilities, or the potential for contamination migration to surrounding areas are listed in this report. The information pertaining to the sites on the regulatory databases was obtained from the *EDR Radius Map with GeoCheck* (See Appendix D) provided by EDR. The databases searched are detailed on pages GR-1 to GR-45 of the Radius Report. The results of the Site and Surrounding Property listings are summarized in Sections

5.3.1 and 5.3.2, respectively.

5.3.1 Site Summary

The Site address was listed in the HAZNET, RCRA–SQG (Small Quantity Generator), ECHO, FINDS, and EMI databases in the EDR Report. These listings are summarized as follows:

- According to the HAZNET listings, the following was manifested for off-site disposal from **LAUSD/Grant HS** under generator ID CAD982024739: (i) 235.963 tons of asbestos containing waste disposed of in 1997, 1999, 2000, 2004, 2005, 2007, 2008, 2009, and 2011; (ii) 68.56 tons of other inorganic waste disposed of in 1996, 1999, 2003, 2005, 2006 and 2009; (iii) 2.55 tons of unspecific organic liquid mixture in 2007; (iv) 0.095 tons of laboratory waste chemicals disposed of in 1996, 2006, and 2007; (v) 1.89 tons of unspecified aqueous solution disposed of in 2006; (vi) 3.33 gallons of oil/water separation sludge disposed of in 2000; (vii) 0.0075 tons of organic solids or off-specifications, aged or surplus organics disposed of in 1996; (viii) 1.4595 tons of waste oil and mixed oil disposed of in 1993; and (ix) 16.02 tons of unspecified waste disposed of in 2007 and 2012.
- According to the RCRA-SQG and ECHO listings, **LAUSD Grant High School** is an active small quantity generator with no RCRA violations noted. The FINDS database does not provide any additional information for the Site.
- According to the EMI listing, **LA Uni Sch Dist, Grant High Sc** had a permit through the South Coast AQMD in 1990 for unlisted emissions.

Additional information regarding the Site was requested from local agencies. The results of file reviews are summarized in Section 6.2 of this report.

5.3.2 Surrounding Properties Summary

One (1) federal, two (2) state, two (2) local or other, no (0) historical, and one (1) orphan listings are provided in the EDR Report's summary of government databases.

The surrounding properties are reviewed and summarized in the table below:

Facility Name	Property Address	EDR Direction - Distance	EDR ID	Databases	Comments
Less Than 1/8 Mile - presumed up-gradient					
London Continuation High School	12924 Oxnard Street	Adjacent to Target Property	4	RCRA-LQG	No RCRA violations reported
Less Than 1/8 Mile – presumed down-gradient or cross-gradient					
Oxnard Street Dump – Van Nuys	12800 Oxnard Street	NE – 0.19 mi	5	WMUDS/ SWAT	Solid Waste Assessment Test Program, no additional information
Between 1/8 and 1/2 Mile - presumed up-gradient					
No listings					
Between 1/8 and 1/2 Mile - presumed down-gradient or cross-gradient					
Los Angeles Valley College	5701 Ethel Ave	SSW – 0.247 mi	B6	SWEEPS UST	Active facility
			B7	UST	No additional information
Parcel #2201, MTA Purchase	13244-50 W Burbank Blvd	SW – 0.487 mi	8	LUST	Case closed in 2013 for unreported impact to soil

Due to poor or inadequate address information, one (1) site was not detailed in the EDR Radius Map. Based on the address information provided and additional information determined by on-line sources, the orphan site is located greater than the specified radius from the Site.

None of the nearby properties are likely to negatively impact the Site based on case status, distance, and/or groundwater flow direction. Section 6.0 provides further discussion regarding the Site and surrounding site use.

5.4Results of Site History/Land Use Review

5.4.1 Proprietary Document Review

Waterstone subcontracted the historical document search to EDR. The information searched and documents available are summarized as the following:

- A search of the EDR Historic Map Collection was conducted for the Site. The EDR Historic Map Collection is the largest and most extensive private collection of prior-use maps in the United States, with coverage ranging from 1867 through 1994. No Sanborn Fire Insurance Map coverage was available for the Site (see Appendix E).
- Historical aerial photographs of the Site and surrounding area were obtained from EDR. Photographs from 1928, 1938, 1947, 1952, 1964, 1967, 1972, 1977, 1981, 1983, 1989, 1994, 2002, 2005, 2009, 2010, and 2012 were provided to and reviewed by Waterstone (See Appendix F). A review of the aerial photographs is provided in the table below.
- Historical Topographic Maps of the Site and surrounding area were obtained from EDR. Maps from 1894, 1896, 1898, 1900, 1902, 1921, 1924, 1926, 1953, 1966, 1972, and 2012 were provided to and reviewed by Waterstone (See Appendix G). A review of the

Topographic Maps is provided in the table below.

- City Directories have been published for many cities and towns across the United States since the 18th century. For each address within an area, City Directories list the name of each resident or, if a business operates from that address, the name and type of business. While the geographic coverage of City Directories is comprehensive for most major cities, many rural areas and small towns may not be included, and many towns and cities have discontinued the practice of issuing City Directories (See Appendix H). City Directory coverage was available for the area and is reviewed in the table below.

Historical Sources Summary Table

Date	Observations	Source
1894/ 1896/ 1898 1900/ 1902	**Site:** The Site is located in a relatively undeveloped portion of the San Fernando Valley, within or adjacent to the floodplain of the Tujunga Wash. **Surrounding Properties:** Surrounding area appears relatively undeveloped. A road is depicted north of the Site. Chatsworth is depicted east of the Site. The Southern Pacific Railroad is depicted south and west of the Site. "Kester" is depicted southwest of the Site.	Topographic Map
1920-1929	**Site:** The Site is not listed in the City Directory. **Surrounding Properties:** Residences are listed in the vicinity of the Site during this time period.	City Directories
1921/ 1924/ 1926	**Site:** The Site appears similar to the previous topographic map, but the extent of the Tujunga Wash appears more defined. **Surrounding Properties:** Surrounding properties appear similar to the previous topographic map, but more streets and occasional buildings are depicted. Ethel Avenue is depicted immediately west of the Site. The Pacific Electric rail line is depicted south of the Site. Van Nuys is northwest of the Site.	Topographic Map
1928	**Site:** The Site appears to be used for orchards and other farmland, with associated residential dwellings. The east side of the Site includes part of the Tujunga Wash. **Surrounding Properties:** Surrounding properties appear to consist primarily of farms and orchards with associated residential dwellings.	Aerial Photograph
1930-1939	**Site:** The Site is not listed in the City Directory. **Surrounding Properties:** City Directory listings are similar to the previous decade. Valley Salvage Co is listed at 6020 Ethel Avenue.	City Directories
1938	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph.	Aerial Photograph
1940-1949	**Site:** The Site is not listed in the City Directory. **Surrounding Properties:** Residences are listed in the vicinity of the Site during this time period.	City Directories
1947	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph, except many of the agricultural properties have now been developed as residential. The Tujunga Wash appears to have been roughly channelized. A field with radio towers is visible southeast of the Site.	Aerial Photograph
1950-1959	**Site:** In 1950, Thompson Geo N R is listed at the Site (likely the name of a resident). **Surrounding Properties:** Primarily residences are listed in the vicinity of the Site during this time period. Los Angeles City Board of Education Administrative Offices is listed at 13010 Oxnard Street.	City Directories
1952	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph, but more of the agricultural properties have been developed as residential. The Tujunga Wash is now a cemented flood control channel. Buildings and a playfield for the Los Angeles Valley Junior College are visible south of the Site.	Aerial Photograph

Historical Sources Summary Table

Date	Observations	Source
1953	**Site:** he Site appears to remain undeveloped, except for residential structures on the north and western portion of the property. **Surrounding Properties:** Agricultural properties with residences are immediately north, south, and west of the Site. The Tujunga Wash is now depicted within a flood control channel immediately east of the Site. Dense residential development is depicted to the farther north, south, east, and west of the Site. An open field with radio towers is southeast of the Site. Various schools are northeast of the Site.	Topographic Map
1960-1969	**Site:** Grant High School is listed at 13000 Oxnard Street in 1962. **Surrounding Properties:** Surrounding properties are listed similarly to the previous decade.	City Directories
1964/ 1967	**Site:** The Site appears to have been developed with the school buildings and playfields for Grant High School. **Surrounding Properties:** All remaining surrounding properties appear to have been developed with no remaining farm fields. The community college campus to the south has expanded significantly to the west and south of the Site.	Aerial Photograph
1966	**Site:** The Site is now depicted as Grant High School. **Surrounding Properties:** Surrounding properties appear generally similar to the previous topographic map except that no surrounding land remains undeveloped. Los Angeles Valley Junior College is depicted immediately west and south of the Site. The Hollywood Freeway is east of the Site and the Ventura Freeway is south of the Site.	Topographic Map
1971-1979	**Site:** The City Directory listings are similar to the previous decade. **Surrounding Properties:** Surrounding properties are listed similarly to the previous decade. London High School is listed at 12924 Oxnard Street, located within the Site boundaries in the southeast corner of the Site.	City Directories
1972	**Site:** The Site appears generally similar to the previous topographic map. **Surrounding Properties:** Surrounding properties are depicted similarly to the previous topographic map.	Topographic Map
1972/ 1977	**Site:** The Site appears generally similar to the previous aerial photograph. Some small buildings in the northwest and southeast corner of the school appear to have been removed and/or added. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph.	Aerial Photograph
1980-1989	**Site:** The City Directory listings are similar to the previous decade. **Surrounding Properties:** Surrounding property listings are similar to the previous decade. A&J Packaging is listed at 12920 Aetna Street (270 feet north of the Site.	City Directories
1981/ 1983/ 1989	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph. The flood control channel immediately east of the Site appears to have a landscaped boardwalk along its edges.	Aerial Photograph
1990-1999	**Site:** The City Directory listings are similar to the previous decade. **Surrounding Properties:** Surrounding property listings are similar to the previous decade.	City Directories
1994	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph.	Aerial Photograph
2000-2009	**Site:** The City Directory listings are similar to the previous decade. **Surrounding Properties:** Surrounding property listings are similar to the previous decade. Tony's Painting is listed at 12931 Calvert Street (0.15 miles north of the Site). AT Nurse Consultants is listed at 13019 Oxnard Street (130 feet north of the Site). All City Construction and Remodeling is listed at 13041 Oxnard Street (130 feet north of the Site).	City Directories

Historical Sources Summary Table

Date	Observations	Source
2002/ 2005/ 2009	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph. In 2009, new construction on the community college campus is visible immediately west of the Site.	Aerial Photograph
2010-present	**Site:** The City Directory listings are similar to the previous decade. **Surrounding Properties:** Surrounding property listings are similar to the previous decade.	City Directories
2010/ 2012	**Site:** The Site appears generally similar to the previous aerial photograph. **Surrounding Properties:** Surrounding properties appear generally similar to the previous aerial photograph.	Aerial Photograph
2012	**Site:** The Site appears generally similar to the previous topographic map. **Surrounding Properties:** Surrounding properties are depicted similarly to the previous topographic map.	Topographic Map

5.4.2 Local Agency Records Review

Based on the listings provided in the EDR report review of government databases, Waterstone submitted requests for file review at local agencies (See Appendix I). The agencies contacted and the results of file reviews are discussed in the following sections.

Local Agency Records Review

Agency	Site Records	Surrounding Property Records
City of Los Angeles Fire Department, Underground Storage Tank (UST) and Hazardous Materials (HazMat) Divisions	The LAFD UST Division has not yet responded to Waterstone's request for information. The LAFD HazMat Division has an inventory summary and Unified Program (UP) documents for the Site for management of hazardous materials; including gasoline, diesel, floor finish, paint, lead debris, clarifier sludge, corrosive and flammable laboratory chemicals, and asbestos debris.	Not reviewed.
City of Los Angeles Building Department	Building permits for the Site were available from the Building Department for structures on the property prior to the construction of the school. Records include certificates of occupancy and permits for new construction and building additions through the 1940s for a residence, barn, and stable. Permits for the school construction were not available through the Building Department; however, building plans from 1990 were provided through LAUSD. Included in the documents provided by LAUSD were 1984 plans for new auto hoists in the auto shop, which indicate an above grade oil storage tank was installed. The plans indicate additional auto hoists were already present in the auto shop, but does not provide any detail on their construction. Copies of these plans are included in Appendix B.	Not reviewed.

Local Agency Records Review

Agency	Site Records	Surrounding Property Records
Los Angeles Industrial Waste Management (IWM) Division	An Industrial Waste Permit was applied for in 2003 for an existing but unpermitted 3-compartment clarification system for basting, boiling, floor washing, and general equipment washing. It is not clear from the documents provided by IWM if this permit is related to one or both of the clarifiers identified at the Site.	Not reviewed.
South Coast Air Quality Management District (AQMD)	No records were identified on the South Coast AQMD FIND website for the Site. No records related to the EMI listing in the EDR Radius Report were identified.	Not reviewed.
Los Angeles County Public Health Investigations (PHI)	PHI records for the Site include copies of the Unified Program documents similar to the documents provided by LAFD HazMat, but with additional inspection paperwork. Records include a notice to comply dated 5/29/2014 to clean and maintain the gasoline storage room. Observations noted included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.	Not reviewed.
Los Angeles Regional Water Quality Control Board (RWQCB)	The RWQCB has no records for the Site.	No records were identified on the RWQCB GeoTracker website.
California Department of Toxic Substances Control (DTSC), Cypress and Chatsworth Offices	The Cypress and Chatsworth DTSC offices have no records for the Site.	Not reviewed.

5.4.3 Review of Previous Environmental Documents

Waterstone was provided with previous environmental documents prepared for the Site. Excerpts of pertinent documents are included in Appendix J.

Several reports for soil characterization of stockpiles generated during project upgrades were provided for review, including the following:

- *Export Soil Sampling Report* prepared by Converse Consultants, September 24, 2008.
- *Export Soil Sampling Report* prepared by Converse Consultants, March 26, 2010.
- *Export Soil Sampling Report* prepared by Converse Consultants, August 10, 2010.
- *Export Soil Sampling Report* prepared by Converse Consultants, August 16, 2011.
- *Chemical Analysis of Soil Samples, Chevron Solar Photovoltaic Systems Project, Ulysses S. Grant Senior High School* prepared by Global Geo-Engineering, Inc., March 30, 2012.
- *Excavation Soil Sampling for New Visitor Grand Stand & Sanitary Building, Grant High School (8683)* prepared by Environmental Engineering, Inc., September 18, 2013.

Each report details testing of stockpiles generated from onsite soils in accordance with the LAUSD Specification Section 01440 – Environmental Import/Export Materials Testing guidance (Section 01440). Soil samples results summarized in all four of the Converse reports concluded that due to the presence of organochlorine pesticides (OCPs) above the detection limit, the soil was unacceptable for reuse onsite or for export to another LAUSD site. The soil stockpiles analyzed by Global Geo-Engineering and Environmental Engineering were deemed acceptable for reuse.

Additionally, Waterstone reviewed a *Preliminary Geotechnical and Geologic Seismic Hazard Evaluation* for the Site, prepared by Ninyo and Moore and dated July 29, 2015. The geotechnical investigation did not make note of any conditions on the Site which would be indicative of an environmental concern.

5.4.4 Vapor Encroachment

As a part of the Phase I investigation, Waterstone reviewed all reasonably ascertainable information for the Site and nearby properties to determine if potential vapor-phase migration concerns may be present which could impact the Site. The information reviewed includes regulatory databases, files for nearby sites, and historical documentation. Based on the information available, there is no information or data that suggest a vapor encroachment issue is likely to exist at the Site.

5.4.5 Asbestos Surveys

While the use of asbestos in the manufacture of most building materials has not been fully prohibited by federal law, the use of asbestos, for the most part, has voluntarily been discontinued since the late 1970s. Some non-friable materials, such as roofing material and floor coverings (floor tile and mastic) may have been manufactured with asbestos materials and may have been used into the early 1980s.

The Site buildings were constructed in the early 1960s; therefore, it is possible that asbestos is present in building materials. AHERA surveys, O&M records, and disposal records are maintained on-site for all known asbestos containing materials on the Site.

5.4.6 Radon Surveys

Radon is a gas that can seep into structures constructed in areas with soils containing uranium. Radon travels through soil and enters the structure through cracks and holes in basement walls or floor drains, or other openings. Based on the location of the Site and according to information provided by the USEPA, radon levels in Los Angeles County, California are below the USEPA action level of 4.0 picocuries per liter (Zone 2). Area radon testing by zip code is provided in the EDR Radius Report, which indicates that none of sixty-six radon tests in the 91401 area code testing greater than 4 picocuries per liter.

A radon survey was not conducted as part of this Phase I Report.

5.4.7 Summary of Site and Vicinity History/Land Use

Based on information provided by aerial photographs, Sanborn Maps, City Directories, and local building department records, the following historical uses and operations of the Site should be noted:

- The Site was developed on land which was previously used for agricultural purposes since prior to 1920. The agricultural land included several residential dwellings and out buildings which were present on the Site.
- By 1962, the Site was developed with several buildings and playfields for the Grant High School.
- Stockpiles of soil which were generated during project upgrades from 2008 through 2014 on the Site were sampled to determine their suitability for reuse per the LAUSD Section 01440 guidance. It was concluded that soil samples results in four of the six sampling events indicated that due to the presence of OCPs above their respective detection limits, the stockpiled soil was unacceptable for reuse onsite or for export to another LAUSD site.
- The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room. Observations noted during an inspection included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.

The history of surrounding properties is summarized as the following:

- Agricultural development with associated residences was present in the vicinity of the Site prior to the 1920s.
- In the 1940s and 1950s, the majority of the properties in the vicinity of the Site were converted to residences. The Tujunga Wash, which is immediately east of the Site, was channelized and cemented in the 1940s or 1950s. The Los Angeles Valley College was initially constructed in the early 1950s and expanded to border the Site to south and west in the 1960s.

Section 6.0
Preliminary Environmental Screening Checklist

This section discusses the LAUSD School Site Selection Screening Criteria. A table of the Preliminary Screening spreadsheet is included in Appendix K.

6.1 High Voltage Power Transmission Lines

Based on Site visit observations, no possible aboveground high-voltage lines were observed in the vicinity of the Site. Based on information provided in the EDR Report and by the Los Angeles Department of Public Works (DWP), no aboveground or underground high voltage power transmission lines are located on and within 350 feet of the Site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.2 Railroads

Based on available area maps, historical topographic maps, site inspection observations, and information provided by the DWP, the Site is not located within 1,500 feet of a railroad easement. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.3 Traffic Noise

Based on available mapping information provided by Navigate LA; Oxnard Street, immediately north of the Site, is considered a minor arterial street and Ethel Avenue, immediately west of the Site, is considered a major collector street. Highway 170 is approximately 0.9 miles east of the Site. The Site is not adjacent to a road or freeway that any identified site-related traffic and sound level studies have determined will have sound levels which will adversely affect the educational program. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.4 Faults

The Site is not located within an Alquist-Priolo fault zone and the nearest fault is the Hollywood Fault which is 5.7 miles from the Site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.5 Flood or Inundation Area

According to the EDR Radius Report, the Site is not located within a 500-year flood zone. According to the Los Angeles City General Plan - Safety Element Inundation and Tsunami Hazard Areas Map, the Site falls within a potential inundation area. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.6 Pipelines and Above Ground Tanks

Based on available area maps, historical topographic maps, site visit observations, and information provided by the City of Los Angeles, sewer pipelines are located beneath Ethel Avenue, Oxnard Street, and Coldwater Canyon Avenue.

At the time of the site inspection, Waterstone did not observe any utility markers or other signs on the Site indicating the presence of petroleum or natural gas pipelines.

A large-diameter pipeline with no apparent markings was observed crossing over the Tujunga Wash adjacent to the Site, and was only identified as a 25-foot water easement on the DPW Navigate LA website. According to the maps on Navigate LA, the easement is adjacent to the Site along the eastern and southern boundaries of the property. See Section 6.11 regarding easements.

The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.7 Liquefaction and Landslides

The Site is not located within a landslide area; however, it is located within a liquefaction zone according to the Parcel Profile Report supplied by the City of Los Angeles Department of City Planning. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.8 Traffic and Pedestrian Safety

Based on available mapping information provided by Navigate LA; Oxnard Street, immediately north of the Site, is considered a minor arterial street and Ethel Avenue, immediately west of the Site is considered a major collector street. Highway 170 is approximately 0.9 miles east of the Site. Based on these distances, the project is not likely to create or exacerbate traffic/pedestrian safety risks from an adjacent major arterial street.

6.9 Compatible Zoning

The project is not likely to create or exacerbate health or safety risks from the zoning surrounding the Site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.10 Light, Wind, Air Pollution

The project is not likely to create or exacerbate impacts from light, wind, or air pollution. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.11 Easements

A large-diameter pipeline which falls within a 25-foot easement is adjacent to the Site along the eastern and southern boundaries of the property. If building placement within the project area falls within 100 feet of the easement, the project may create or exacerbate impacts existing safety hazards. The placement of buildings within the project area will need to be assessed in regards to their proximity to the easement.

6.12 Border Zone Property

Based on the EDR Report and the searchable DTSC Envirostor Site Mitigation and Brownfield Reuse Program database, no border zone properties are located within 2,000 feet of the Site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.13 Cellular Phone Towers

Based on Site observations and a review the MapMuse website (http://find.mapmuse.com/map/cell-towers), cellular phone towers are not on or adjacent to the site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.14 Air Pollution

The Site is not located within 500 feet of a major transportation corridor or major stationary source of emissions. The Site is not listed on the LAUSD Priority List of Schools Most at Risk from Air Pollution. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.15 Methane Zone

An area may be identified as a potential methane hazard site due to its proximity to methane gas sources such as landfills, oil wells, oil fields and underground gas storage facilities. The locations of these methane gas sources are based on data from DOGGR and the County of Los Angeles DPW. According to methane and methane buffer zone information provided by the City of Los Angeles, Bureau of Engineering, the Site is not located within an identified Methane or Methane Buffer Zone. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

6.16 Oil Wells

Oil or gas wells or pipelines were not identified on the Site during the Site visit and were not listed in the EDR Report. According to DOGGR and the EDR Report, the closest oil well to the Site is greater than 0.5 miles west of the Site.

6.17 Airports

An area designated as an airport hazard is one whose boundaries impose height limitations on the use of the land. Airport Hazard means any structure or tree or use of land which obstructs the airspace required for the flight of aircraft in landing or taking off at an airport or is otherwise hazardous to the landing or taking off of aircraft. Based on a review of area maps and aerial photographs, no active airports are within two nautical miles of the Site. The project will not create any new significant safety hazards or exacerbate any existing safety hazards.

Section 7.0
Summary and Conclusions

7.1 Summary

The Site, located at 13000 Oxnard Street in the City of Los Angeles, California, is currently occupied by Ulysses S. Grant High School (Grant HS). The southeastern portion of the property is occupied by the campus for Jack London High School, which is listed under the address 12924 Oxnard Street.

Based on available historical documents, local agency records, and previous environmental assessments, the history of the Site is summarized as the following:

- The Site was developed on land which was previously used for agricultural purposes since prior to 1920. The agricultural land included several residential dwellings and outbuildings which were present on the Site.
- By 1962, the Site was developed with several buildings and playfields for the Grant High School.
- Stockpiles of soil which were generated during project upgrades from 2008 through 2014 on the Site were sampled to determine their suitability for reuse per the LAUSD Section 01440 guidance. It was concluded that soil samples in four of the six sampling events contained organochlorine pesticides (OCPs) above their respective detection limits and were therefore unacceptable for reuse onsite or for export to another LAUSD site.
- The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room. Observations noted during an inspection included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.
- The Site address was listed in the HAZNET, RCRA–SQG (Small Quantity Generator), ECHO, FINDS, and EMI databases in the EDR Report.

The Site is located within a residential area of the Valley Glen neighborhood in Los Angeles, California (See Figure 1). At the time of the Site inspection, the properties adjacent to the Site were characterized as the following (see Figure 2):

North: Oxnard Street is immediately north of the Site. Residential properties and apartment complexes are farther north of the Site.

East: The Tujunga Wash and Greenbelt is immediately east of the Site. Coldwater Canyon Avenue and residential properties are farther east of the Site. A large-diameter pipeline with no apparent markings was observed crossing over the Tujunga Wash adjacent to the Site, and was only identified as a 25-foot water easement on the Department of Public Works

Navigate LA website. A radio tower field is located approximately 0.25 miles southeast of the Site.

South: Athletic playfields and a stadium for the Los Angeles Valley College is immediately south of the Site. Burbank Boulevard and residential properties are farther south of the Site.

West: Ethel Avenue is immediately west of the Site. In order, the Los Angeles Valley College campus, Fulton Avenue and residential properties are farther west of the Site.

The history of surrounding properties is summarized as the following:

- Agricultural development with associated residences was present in the vicinity of the Site prior to the 1920s.
- In the 1940s and 1950s, the majority of the properties in the vicinity of the Site were converted to residences. The Tujunga Wash, which is immediately east of the Site, was channelized and cemented in the 1940s or 1950s. The Los Angeles Valley College was initially constructed in the early 1950s and expanded to border the Site to south and west in the 1960s.

7.2 Findings and Conclusions

Waterstone has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-13 of the Site. Potential on- and off-Site issues identified during this investigation are summarized as the following:

7.2.1 Potential Site Issues

Recognized Environmental Conditions (RECs) **were** identified for the Site:

- Due to the original construction dates of the Site buildings (early 1960s), it is possible that lead-based paint was used during the construction or maintenance of the buildings. The buildings are primarily clad with brick, but portions of the outside façade include painted surfaces.
- Due to the original construction dates of the Site buildings (early 1960s), it is possible that OCPs were applied to soil surrounding the foundations of buildings constructed from wood for termite control.
- Due to the historical use of the Site as agricultural fields prior to construction of the school, it is possible that OCPs were applied to the historical orchards for weed and pest control.
- Arsenic in soil underneath asphaltic concrete (AC) pavement may be present due to LAUSD's former standard practice of applying herbicides containing this metal prior to paving.

- Three 55-gallon drums of gasoline are stored in the custodial/utility building on the Site. The drums are stored on a concrete floor in good condition with no secondary containment. The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room following observations of accumulated gasoline residue on the shelves and floor.
- Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classrooms, and one is located outside Room 108 and is associated with the science classrooms. It was not confirmed how often the clarifiers are cleaned, but clarifier sludge was noted as a waste in the Unified Program documents from the Fire Department files.
- Auto hoists which were installed during two separate time frames were historically located in the auto shop. It is believed that the auto hoists are no longer present, but the auto shop was not accessible during the inspection and no documentation was available to indicate that the hoists had been removed and/or the area has been sampled.

7.2.2 Potential Off-Site Property Issues

RECs **were not** identified in connection with current off-Site properties.

Section 8.0
Recommendations

Based on the foregoing, as well as representations made by individuals interviewed for this report, additional investigation is recommended for the Site:

- Prior to their demolition, the area around Site buildings should be assessed for lead based paint and OCPs in general accordance with the DTSC *Interim Guidance – Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers (June 9, 2006).*
- Due to the historical agricultural use of the Site, the areas to be redeveloped should be assessed for OCPs in accordance with the DTSC *Interim Guidance for Sampling Agricultural Properties (Third Revision) (August 7, 2008).*
- In locations of future construction covered by AC pavement, the possible presence arsenic in shallow soil at the site should be assessed.
- Due to the lack of secondary containment and history of housekeeping issues in the fuel storage area of custodial/utility building, this area should be assessed for potential total petroleum hydrocarbon (TPH) and volatile organic compound (VOC) impact prior to demolition.
- Due to a lack of information regarding the historical use of the two three-compartment clarifiers at the Site, these areas should be assessed for potential VOC and metals impact prior to demolition.
- Prior to the buildings demolition, it should be determined if the auto hoists located in the auto shop building on the Site are still present. Due to the lack of information regarding the history, and potential removal and environmental assessment of the auto hoists, this area would be also assessed for potential TPH and VOC impact.

Section 9.0
References

Published References

Environmental Data Resources, Inc., June 14, 2016, Radius Map with GeoCheck

Environmental Data Resources, Inc., June 14, 2016, Certified Sanborn Map Report

Environmental Data Resources, Inc., June 14, 2016, Historical Topographic Map Report

Environmental Data Resources, Inc., June 14, 2016, City Directory Report

Environmental Data Resources, Inc., June 16, 2016, Aerial Photographs

On-line Resources

Envirostor, California Department of Toxic Substances Control, http://www.envirostor.dtsc.ca.gov/public/

Facility Information Detail (FIND) Database, South Coast Air Quality Management District, http://www3.aqmd.gov/webappl/fim/prog/search.aspx

GeoTracker, State Water Resources Control Board, http://geotracker.waterboards.ca.gov/

MapMuse, http://find.mapmuse.com/map/cell-towers

Navigate LA, City of Los Angeles Department of Public Works, Bureau of Engineering, http://navigatela.lacity.org/navigatela/

ZIMAS, City of Los Angeles Department of City Planning, http://zimas.lacity.org/

Other Resources

Regional Water Quality Control Board, Los Angeles Region

California Department of Toxic Substances Control (DTSC), Cypress and Chatsworth Offices

Los Angeles County Building Department

Los Angeles County Department of Public Works

Los Angeles County Public Health Investigations

California Department of Conservation, Department of Oil, Gas, and Geothermal Resources

California Department of Water Resources, Bulletin 118, updated 2003

United Stated Environmental Protection Agency – Radon Research Program

California Geological Survey, California Geomorphic Provinces Note 36

Export Soil Sampling Report, Converse Consultants, September 24, 2008

Export Soil Sampling Report, Converse Consultants, March 26, 2010

Export Soil Sampling Report, Converse Consultants, August 10, 2010

Export Soil Sampling Report, Converse Consultants, August 16, 2011

Chemical Analysis of Soil Samples, Chevron Solar Photovoltaic Systems Project, Ulysses S. Grant Senior High School, Global Geo-Engineering, Inc., March 30, 2012

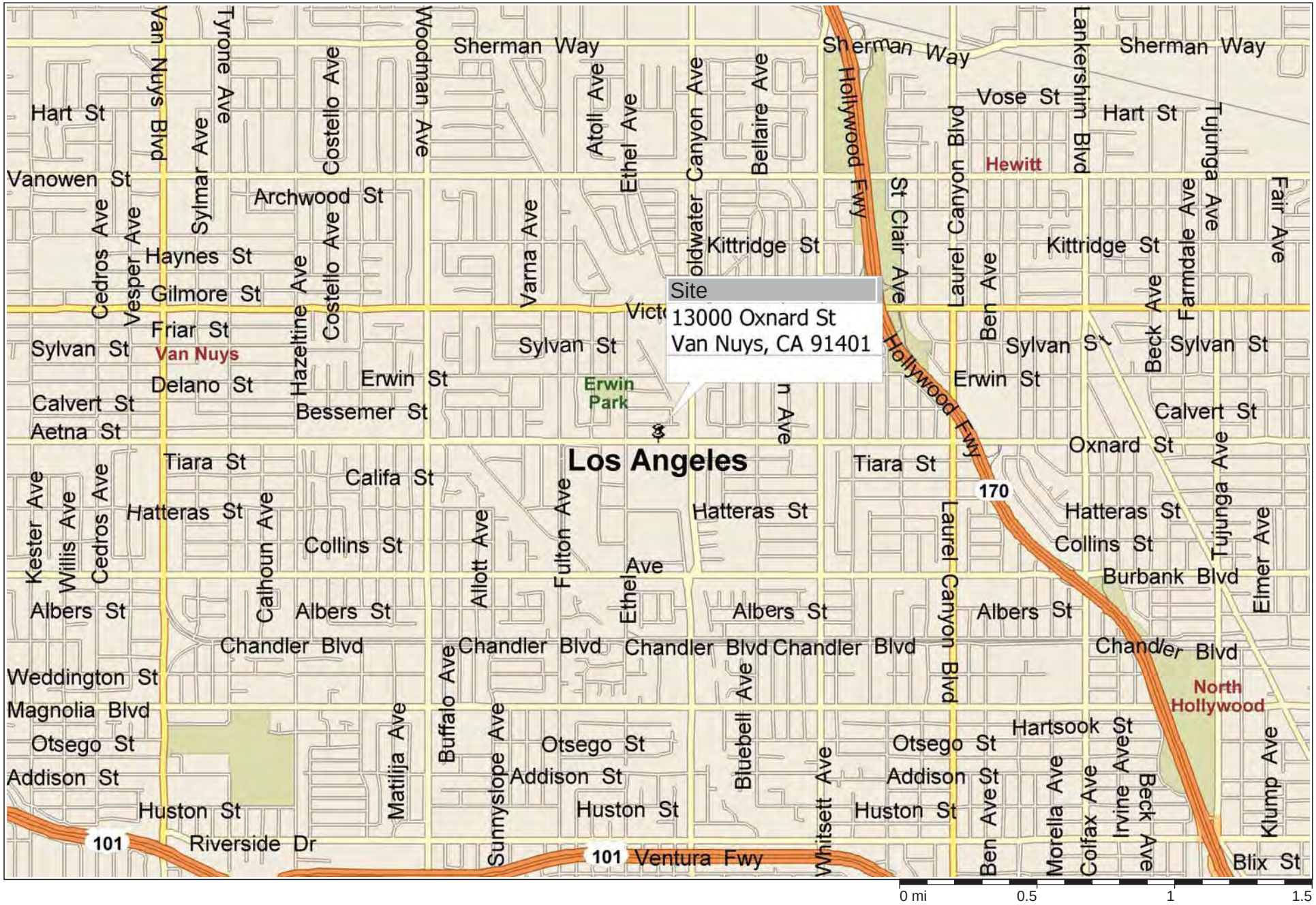
Excavation Soil Sampling for New Visitor Grand Stand & Sanitary Building, Grant High School (8683), Environmental Engineering, Inc., September 18, 2013

Preliminary Geotechnical and Geologic Seismic Hazard Evaluation for the Site, Ninyo and Moore, July 29, 2015

Quarterly Groundwater Monitoring Report, First Quarter 2016, Former Bendix Facility, 11600 Sherman Way, North Hollywood, California, Ramboll Environ, April 15, 2016

Figures

Figure 1 - Site Location Map



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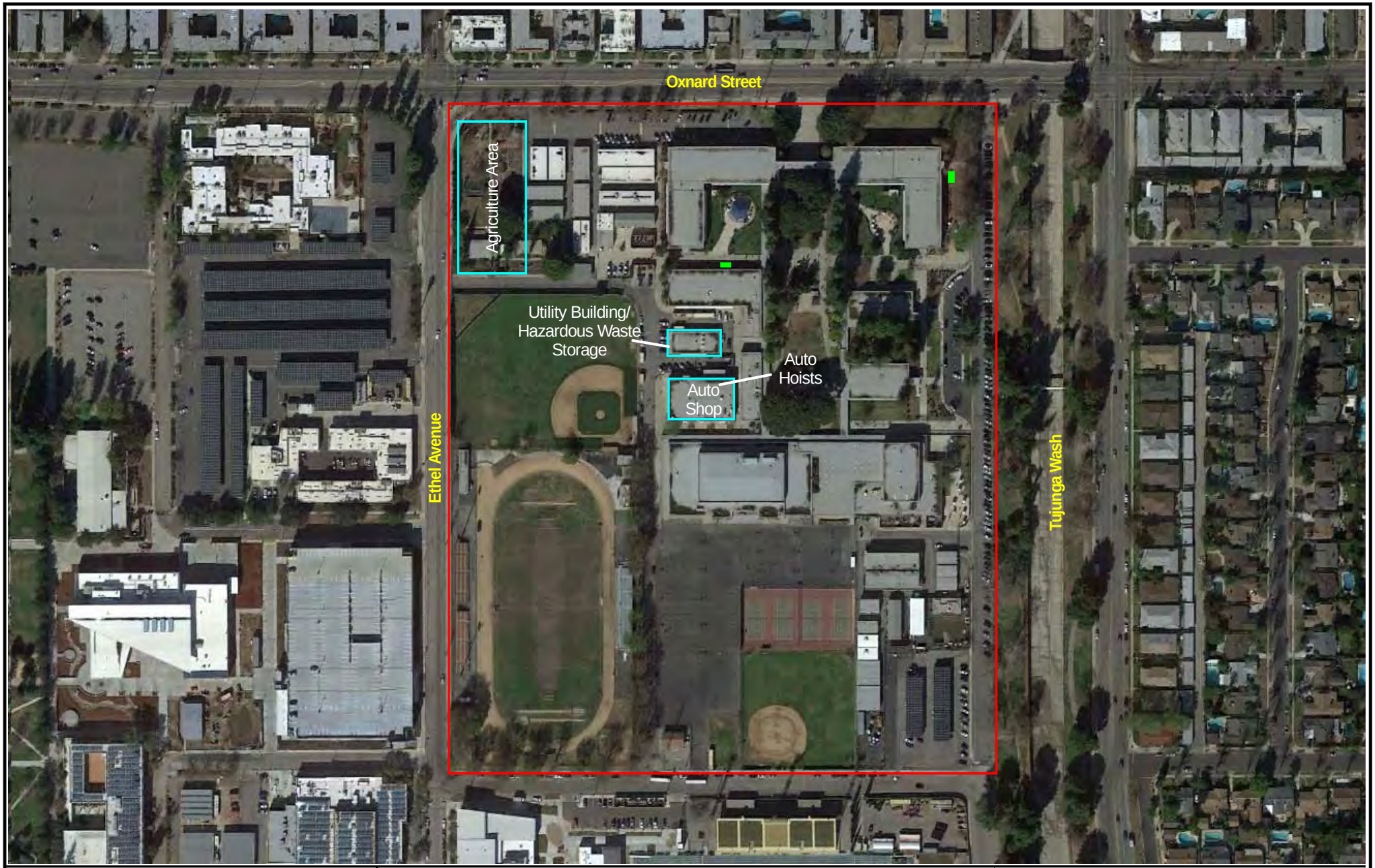


Figure 2
Site Vicinity Map

Grant High School
Los Angeles, CA 94101

Legend

Approximate Subject Property Boundary

Clarifier

NORTH

0' 125' 250'
Approximate Scale

Waterstone Environmental, Inc.
2936 East Coronado Street
Anaheim, California 92806

Drafted By: HLF	Project: 16-145
Approved By: EG	Date: 06-28-2016

Appendix A

Environmental Professional Resume

Heather Fields

Senior Associate Scientist

Waterstone Environmental, Inc.

Ms. Fields is a Senior Associate Scientist at Waterstone Environmental, and her primary responsibilities include managing and performing environmental site assessments (Phase I and Phase II investigations), management of large scale sampling and remediation projects, data management, report preparation, and litigation support. Ms. Fields began her career by participating in a National Science Foundation sponsored internship conducting research on historical native California ecology at the University of Arkansas, Fayetteville. This experience provided her with a better understanding of sampling and collection protocol, data management, environmental land use acquisition and management, and statistical significance in data analysis. Ms. Fields earned a Bachelor's Degree in Earth Sciences with an emphasis in Geography and Environmental Studies from California Polytechnic State University, San Luis Obispo in 2006 and completed the Environmental Management Certificate Program from the University of California-Irvine in 2009.

Education

- B.S. Earth Sciences, Minor in Environmental Studies, Cal Poly, San Luis Obispo, CA, 2006.
- Environmental Management Certificate, University of California-Irvine, Irvine, CA, 2009.

Specialized Training and Certifications

- OSHA 40-HR HAZWOPER Training, 2007-Current
- First Aid Training, 2007-Current
- 40-HR AHERA Supervisor Training, 2008-Current

Capabilities

- Groundwater and Soil Sampling
- Soil Vapor Well Installation and Sampling
- Fieldwork Activities and Management
- Supervision of Direct Push, Hollow Stem Auger and Cone Penetrometer (CPT) Rigs
- Soil Remediation Oversight
- Groundwater Remediation and Monitoring
- Environmental Site Assessments (Phase I/Phase II)
- Phase I, Phase II, Remedial Action Workplan and Remedial Action Completion Report Preparation

- Litigation Support
- Regulatory Research and Guidance
- Computer Aided Drafting and Modeling Programs
- Data Managment and Processing

Key Projects and Experience

Environmental Site Assessments

- Ms. Fields has conducted Phase I site assessments both within California and other states for a variety of clients, including banks, land development companies, and the Los Angeles Unified School District. Each of these projects required arranging site visits with representatives of the property, visual assessment of the property, research of the potential environmental concerns at the property and adjacent properties at local agencies, requesting agency information and conducting file reviews, performing interviews with site contacts, and completing a report that summarized the potential for environmental impact to the property.

Fieldwork Capabilities and Supervision

- Ms. Fields has supervised and participated in a variety of field work activities, including multiple Phase II Environmental Site Assessments for soil contamination on commercial and undeveloped parcels throughout Southern California. Phase II work has included soil sampling for volatile organic compounds, metals, total petroleum hydrocarbons, and polychlorinated biphenyls, among other chemicals. During each soil sampling activity, she was responsible for monitoring health and safety for herself and subcontractors, classifying and logging soil samples, and making decisions for additional sampling at each field location. Several aspects of field work have included management of hollow stem auger and direct push drilling contractors, utility clearance, and sample collection specific to the chemicals of concern.

- Ms. Fields has performed oversight activities in association with groundwater remediation and groundwater sampling for both discrete and quarterly groundwater monitoring. Ms. Fields has supervised single and multi-nested groundwater well installation and well development activities. Ms. Fields has overseen and collected groundwater samples for quarterly groundwater monitoring reporting at a variety of locations throughout Southern California, including using low-flow sampling techniqes. Her duties have included operation of ozone injection, pump and treat, and dual phase extraction remediation systems for which she collected samples, measured groundwater conditions, performed system maintenance, and collaborated with the subcontractor and project manager to optimize the remediation system.

- Ms. Fields is experienced in performing soil vapor surveys in accordance with the *Interim Guidance for Active Soil Gas Investigation* (February 25, 1997) and the DTSC/LARWQCB *Advisory for Active Soil Gas Investigations* (April 2012) for soil

vapor well installations and sampling. She has completed numerous soil vapor surveys under these guidelines for both volatile organic compounds and methane, and has assisted clients in comprehending and executing the installation and sampling of soil vapor wells.

- Ms. Fields has managed large scale soil remediation projects, which included the oversight of multiple crews conducting excavation using excavators and large diameter auger equipment, and which included shoring installation and daily slurry backfilling. Ms. Fields has additionally overseen large scale soil grading projects for the purpose of identifying and remediating environmental concerns.

- Prior to soil and/or groundwater sampling, Ms. Fields has prepared subcontracts, marked borings, arranged for subsurface utility clearance, and coordinated with laboratories for analysis of soil and/or groundwater samples.

Litigation Support

- Ms. Fields has worked on several expert witness testimony presentations for litigation cases nationwide. She was responsible for creating exhibits, database management and analysis, document management and review, expert report preparation, and overseeing the production of presentation materials for expert witness testimony in California and Federal courts for properties including oil refineries, nuclear facilities, and large parcels slated for development.

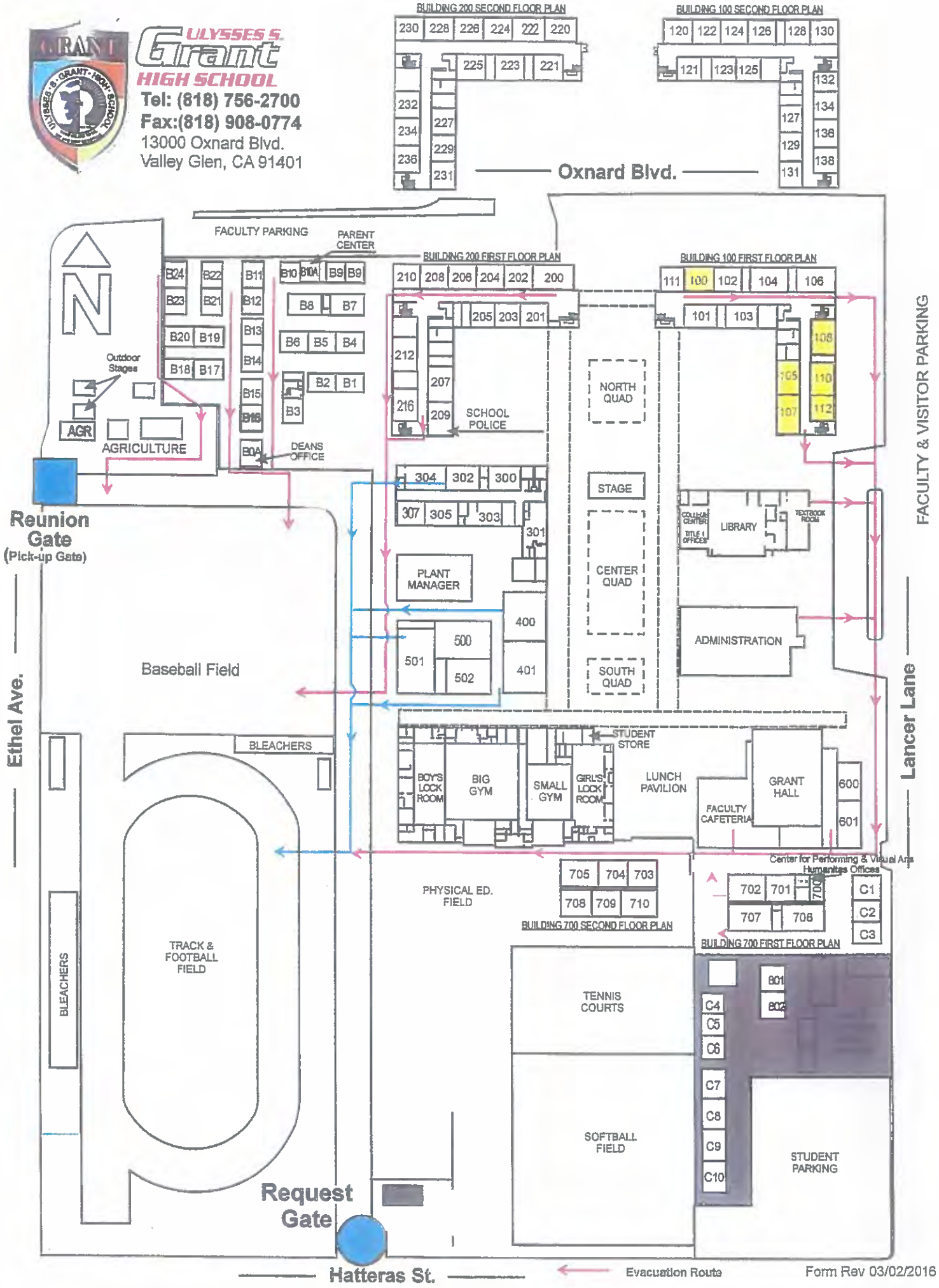
Health and Safety

- Ms. Fields has prepared numerous Health and Safety Plans for various Phase II sampling projects and remediation projects. Ms. Fields has been the Health and Safety Officer on numerous job sites throughout the region.

Appendix B

User Provided Documents

ULYSSES S. Grant HIGH SCHOOL
Tel: (818) 756-2700
Fax:(818) 908-0774
13000 Oxnard Blvd.
Valley Glen, CA 91401



Form Rev 03/02/2016

6/2/15

U.S. Grant H.S.

Chemical Inventory

Chemical Name	State of Matter	Quantity
hydrogen peroxide	liquid	~~[illegible]~~ 13,475 ml
EDTA Solution	liquid	7,500 mL
Buffer solution	liquid	2,200 mL
sodium hydroxide	solid	~~1,200g~~ 3,500g
sodium hypo chlorite	liquid	10 L
sodium carbonate	solid	100 g
sodium bicarbonate	solid	1,700 gm
Ammonium Hydroxide	liquid	11,200 mL
Sodium Hydroxide	liquid	8,000 mL
Potassium Hydroxide	liquid	4,500 mL
Potassium Hydroxide	solid	3010 gm
Calcium Hydroxide	solid	2.63 gm
Barium Hydroxide	solid	3000 gm
Zinc Nitrate Solution	liquid	1,650 mL
Silver Nitrate Solution	liquid	900 mL
Iron(III) Nitrate Solution	liquid	3,700 mL
Copper (II) Nitrate Solution	liquid	1,650 mL
Barium Nitrate Solution	liquid	1,100 mL
Lead Nitrate Solution	liquid	825 mL
Magnesium Nitrate Solution	liquid	250 mL
Ferric Nitrate Solution	liquid	1,500 mL
Magnesium	solid	200 g
Aluminum	solid	200 g
Zinc	solid	800 g
iron	solid	1981 g
Ammonium Thiocyanate	solid	800 g
Potassium Thiocyanate	liquid	2500 mL
Potassium Thiocyanate	solid	50 g
Sodium Thiocyanate	liquid	700 mL
Phenolphthalein	liquid	3600 mL
Phenolphthalein	solid	600 g
Universal ~~[illegible]~~ Indicator	liquid	1,600 mL

213-241-6816

Chemical Inventory

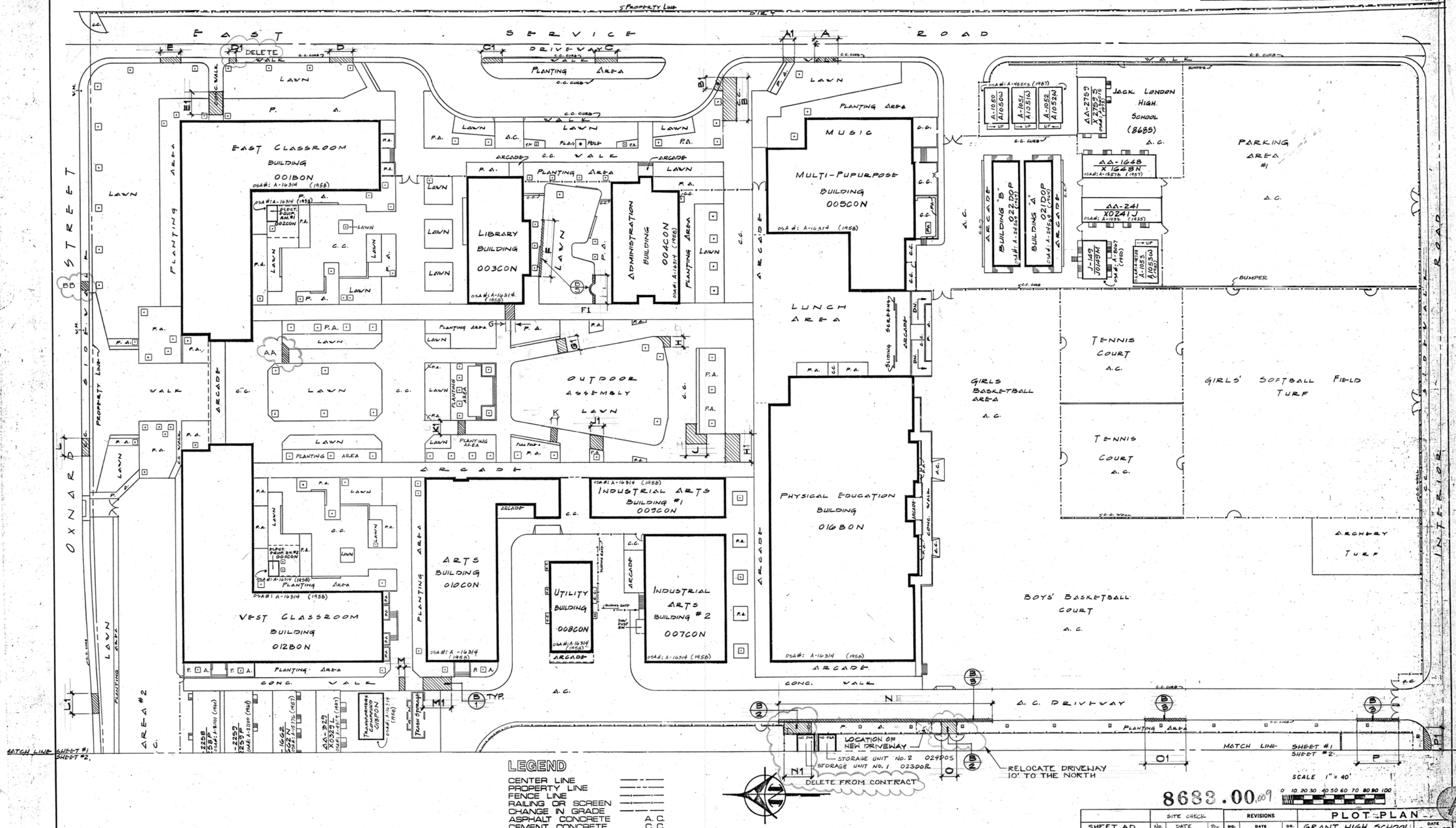
Chemical Name	State of Matter	Quantity
Diphenylamine	liquid	125 mL
Decolorizing Carbon	solid	30g
Tetrahydrofuran	liquid	75mL
Bromobenzene	liquid	50mL
Acetic Anhydride	liquid	150mL
Alfalfa	solid	80g
EBT Solution	liquid	90 mL
Bud Leaf Extract	liquid	150 mL
Ammonium Chloride Solution	liquid	9,000 mL
Copper (II) Chloride Solution	liquid	3,500 mL
Sodium Chloride Solution	liquid	200mL
Ammonium Chloride Buffer	liquid	800mL
Sodium Acetate Solution	liquid	500mL
Sodium Phosphate Solution	liquid	400mL
Barium Chloride Solution	liquid	275mL
Aluminum Potassium sulfate	solid	100g
Ferrous Ammonium Sulfate	solid	280g
Cobalt (II) Chloride 6-Hydrate	solid	300g
Sodium Chloride	solid	22.5kg
Sodium Chloride	liquid	1,750 mL
Sodium Iodide	liquid	950mL
Sodium Bromide	liquid	1350 mL
Calcium Chloride	solid	4,500g
Calcium Chloride Solution	liquid	1000 mL
Copper(II) Solution	liquid	1000mL
Cupric Sulfate Solution	liquid	3,500 mL
Ferric Chloride Solution	liquid	300 mL
Stannous Chloride Solution	liquid	200 mL
Potassium Iodide Solution	liquid	400 mL
Mercury(II) chloride	solid	250g
Potassium Iodide	solid	250g
Sodium Acetate	liquid	3500mL

Chemical Inventory

Chemical Name	State of Matter	Quantity
Sodium Sulfate Solution	liquid	15,700 mL
Sodium Thiosulfate Solution	liquid	8 lt
Sodium Thiosulfate	solid	750 g
Stannous Chloride	liquid	600 mL
Stearic acid	solid	200 g
L+ Ascorbic Acid	solid	75 g
Cetyl Alcohol	solid	600 g
Potassium Bitartrate	solid	100 g
Salicylic acid	solid	600 g

LOS ANGELES COUNTY FLOOD CONTROL

GRANT HIGH (8683)
JACK LONDON HIGH (8683)



LEGEND

CENTER LINE	
PROPERTY LINE	
FENCE LINE	
RAILING OR SCREEN	
CHANGE IN GRADE	
ASPHALT CONCRETE	A. C.
CEMENT CONCRETE	C. C.
PLANTING AREA	P. A.
TREE AREA	OR T. A.
DECOMPOSED GRANITE	D. G.
GAS METER	G. M.
WATER METER	W. M.
FLAGPOLE	F. P.
AREAWAY	A. W.
STUDENT BODY OWNED	S. B. O.
FIELD LIGHT STANDARD	

8683.00.009

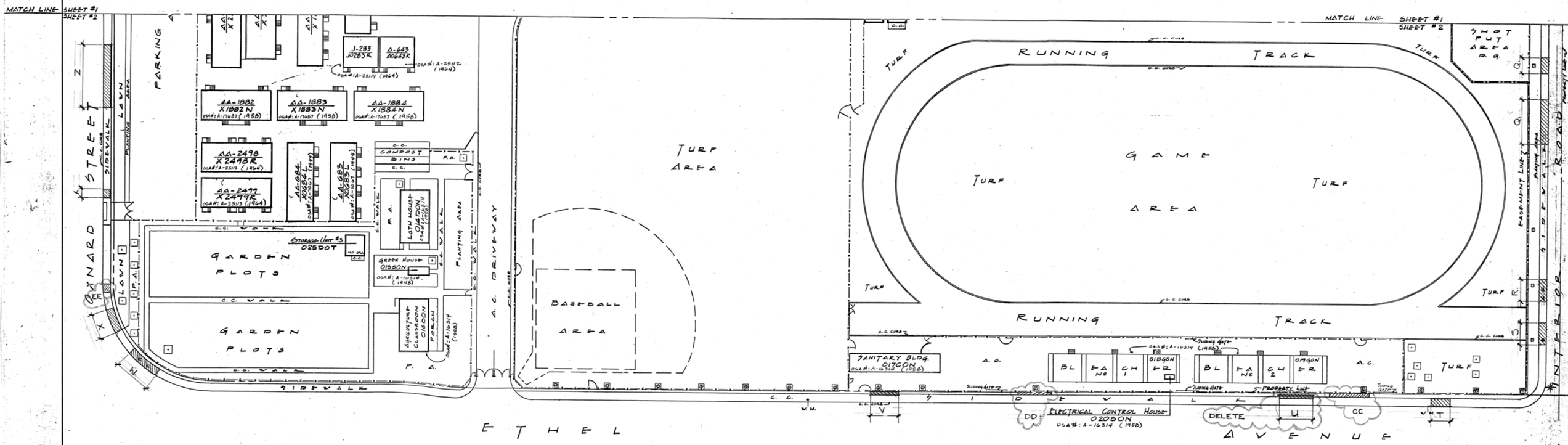
SHEET AD	SITE CHECK			REVISIONS			PLOT PLAN
	No.	DATE	By	No.	DATE	DR.	GRANT HIGH SCHOOL
1	1	4-4-88	RG	1	4-4-88	RG	13000 OXNARD STREET
OF 3							VAN NUYS, CALIF. 91401

PREPARED BY
BUSINESS DIVISION
BOARD OF EDUCATION
1425 SOUTH SAN PEDRO STREET
LOS ANGELES CALIFORNIA

ADMINISTRATIVE AREA "E"
MAINTENANCE AREA "2"

DATE 3-20-87
DRAWN N.T.
CHECKED
SCHOOL CODE 8683
SHEET NO. AD1 OF THREE

GRANT HIGH (8683)
JACK LONDON HIGH (8685)



LEGEND

CENTER LINE	
PROPERTY LINE	
FENCE LINE	
RAILING OR SCREEN	
CHANGE IN GRADE	
ASPHALT CONCRETE	A. C.
CEMENT CONCRETE	C. C.
PLANTING AREA	P. A.
TREE AREA	T. A.
DECOMPOSED GRANITE	D. G.
GAS METER	G. M.
WATER METER	W. M.
FLAGPOLE	F. P.
AREAWAY	A. W.
STUDENT BODY OWNED	S. B. O.
FIELD LIGHT STANDARD	
SANDBOX	S. B.

✳ PATCH CURB

SCALE 1" = 40'

0 10 20 30 40 50 60 70 80 90 100

8683.00.009

SITE CHECK			REVISIONS			PLOT PLAN
No.	DATE	BY	NO.	DATE	DR.	GRANT HIGH SCHOOL
1	4-4-88	RG	1	4-4-88	RG	13000 OXNARD STREET VAN NUYS, CALIF. 91401

SHEET AD 2 OF 3

PREPARED BY
BUSINESS DIVISION
BOARD OF EDUCATION
1425 SOUTH SAN PEDRO STREET
LOS ANGELES CALIFORNIA

ADMINISTRATIVE AREA "E"
MAINTENANCE AREA # "2"

DATE 3-20-87
DRAWN N.T.
CHECKED
SCHOOL CODE 8683
SHEET NO. AD 2 OF THI

SCOPE OF WORK
for
CONCRETE SIDEWALK REPLACEMENT
at
GRANT HIGH SCHOOL

1. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND DIMENSIONS.
2. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING CONCRETE WHERE DISIGNATED AS PER BLUEPRINT INDICATION.
3. CONTRACTOR SHALL SAW CUT CONCRETE WHERE NECESSARY AND/OR AT THE DISTRICT REPRESENTATIVES DIRECTION.
4. CONTRACTOR SHALL REMOVE THE SUBGRADE TO A LEVEL OF 7" MINIMUM BELOW FINISHED GRADE OF CONCRETE SIDEWALK.
5. CONTRACTOR SHALL REMOVE EXISTING TREE ROOTS, AS PER TREE SURGEON S INSTRUCTION TO A LEVEL OF 7" MINIMUM BELOW FINISHED GRADE OF CONCRETE SIDEWALK.
6. THE CONTRACTOR SHALL COMPACT THE SUBGRADE TO A COMPACTION OF NOT LESS THAN 90% BEFORE THE SUBBASE IS INSTALLED.
7. THE CONTRACTOR SHALL INSTALL THE SUBBASE, USING AN APPROVED CRUSHED MISC BASE, TO WITHIN 4" FROM THE TOP OF THE FINISHED GRADE OF THE CONCRETE SIDEWALK FOR A MINIMUM DEPTH OF 3", WITH A COMPACTION OF NOT LESS THAN 90% BEFORE INSTALLING THE CONCRETE SIDEWALK.
8. THE CONTRACTOR SHALL INSTALL THE 4" CEMENT CONCRETE SIDEWALK AS PER SPECS. WITH NOT LESS THAN 2500 PSI. A LIGHT BROOM FINISH SHALL BE APPLIED WITH CONTROL JOINTS NOT MORE THAN 20' APART UNLESS OTHERWISE STATED.
9. CONTRACTOR SHALL USE AN APPROVED LIQUID CURING COMPOUND AS PER SPECIFICATIONS.
10. EACH PHASE OF WORK TO BE COMPLETED AND THE DISTRICT INSPECTOR NOTIFIED AS TO THE FACT.
11. EACH PHASE OF WORK SHALL BE COMPLETED AND APPROVED BEFORE THE NEXT PHASE BEGINS.
12. THE CONTRACT SHALL BE FOR 15 CALENDAR DAYS

CONSTRUCTION NOTES

1. CONTRACTOR TO OBTAIN AND PAY FOR ALL PERMITS REQUIRED BY L.A. CITY FOR WORK OFF SITE.
2. CONTRACTOR SHALL EMPLOY A LICENSED TREE SURGEON FOR ALL TREE ROOT TRIMMING WORK.
3. ALL OFF SITE WORK TO BE CONSTRUCTED AS PER L.A. CITY STANDARDS UNLESS OTHERWISE NOTERD.
4. CONCRETE PAVEMENT REMOVAL LIMITS SHALL BE AT THE NEAREST SCORE LINE OR CONSTRUCTION JOINT.
5. WHERE PAVING DAMAGE IS DUE TO TREE ROOT GROWTH, TRIM ROOTS PER TREE SURGEONS INSTRUCTION BEFORE CONSTRUCTING NEW PAVEMENT.
6. SAW CUT AND JOIN ALL CONCRETE SIDEWALK REPLACEMENT WORK, DO NOT REMOVE OR ALTER EXISTING OFF SITE CURBS AND GUTTERS UNLESS OTHERWISE INDICATED.
7. SAW CUT IF NEEDED OR WHERE NECESARY.

LOCATION AND SIZE

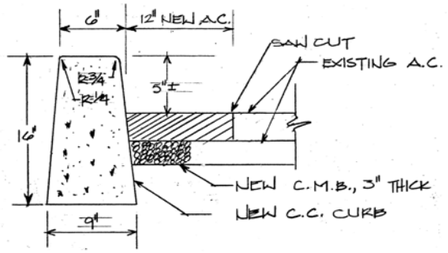
A	5' X 23'	
A1	5' X 30'	
B	14' X 43'	
B1	13' X 20'	
C	5' X 22'	
C1	5' X 20'	
D	5' X 23'	
E	5' X 20'	
E1	12' X 22'	
F	55 LF OF	MOWING STRIPS
F1	28 LF OF	MOWING STRIPS
G	7' X 15'	
G1	9' X 14'	
H	13.5' X 20'	REMOVE/REPLACE
H1	10' X 20'	
J1	12' X 14'	
K	6' X 14'	
K1	7' X 14'	
L	8' X 18'	
M	4' X 13'	
M1	13' X 28'	
O	DRIVEWAY TO BE ELIMINATED AND RELOCATED NORTH OF EXISTING - 10'	
O1	40 LF OF CURB	
P	40 LF OF CURB	
P1	8' X 39'	
Q	8' X 15'	
Q1	8' X 40'	
R	8' X 20'	AND 20 LF OF CURB
S	8' X 10'	
T	10' X 21'	
V	3' X 25'	
W	6' X 31'	
X	8' X 21'	
Y	8' X 7'	
Z	8' X 57'	

ITEMS ADDED TO BID

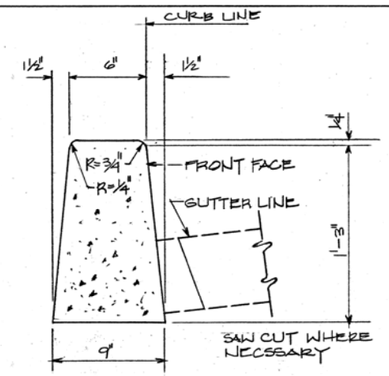
AA	7' X 18'
BB	7' X 15'
CC	2.5' X 24'
DD	3' X 24'
EE	7' X 13'

ITEMS DELETED FROM BID

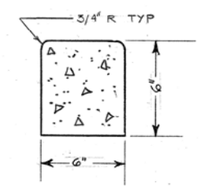
D1	5' X 7'
N1	9' X 26'
U	3' X 30'



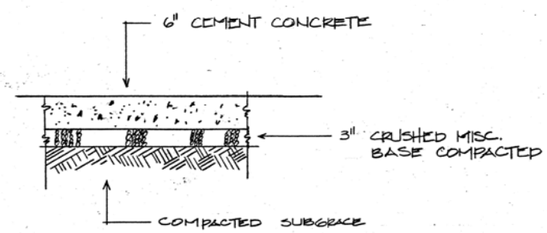
CEMENT CONCRETE CURB (B/3)
NO SCALE



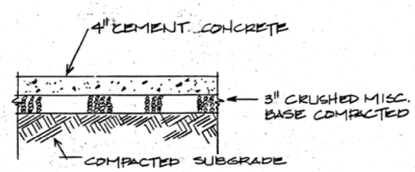
TYPE A CURB (B/4)
NO SCALE



MOWING STRIP (B/5)
NO SCALE



6" CEMENT CONCRETE PAVEMENT (B/2)
NO SCALE



4" CEMENT CONCRETE PAVEMENT (B/1)
NO SCALE

LEDGEND

REMOVE CONCRETE PAVEMENT	
REPLACE CONCRETE PAVEMENT	
PROPERTY LINE.....PL or	--- - - ----
CENTER LINE.....CL or	---- - ----
CHAIN LINK FENCE.....CLF or	---X---X---X--
MATCH LINE.....ML or	---- - - - ---
REMOVE & REPLACE CURB	

8683.00.09

PREPARED BY:
MAINTENANCE BRANCH
TECHNICAL SUPPORT UNIT
1240 S Naomi Ave.
Los Angeles, Ca. 90021
LOS ANGELES UNIFIED SCHOOL DISTRICT • DIVISION OF OPERATIONS

SHEET AD 3 OF 3

Project: REMOVAL AND REPLACMENT OF C.C. PAVMENT
GRANT HIGH SCHOOL
Address: 1300 OXNARD ST. VAN NUYS, CA 91401
Planner: ED MANNIER
Technical Supervisor: L. LANG

Date | Drawn: D ZAMPARELLA | Checked | Job No.
L.A.U.S.D.
Index No. AD 3
Of THREE Sheets

BISHOP GRAPHICS/ACCUPRESS
BIDREIER NO. A48215

INDEX TO DRAWINGS

INDEX NUMBER	LAUSD NUMBER	DESCRIPTION
1	M-1	SITE PLANS
2	M-2	AUTO SHOP FLOOR PLANS
3	M-3	AUTO SHOP FLOOR PLANS
4	M-4	DETAILS AND SCHEMATICS

AUTO HOISTS

VARIOUS HIGH SCHOOLS

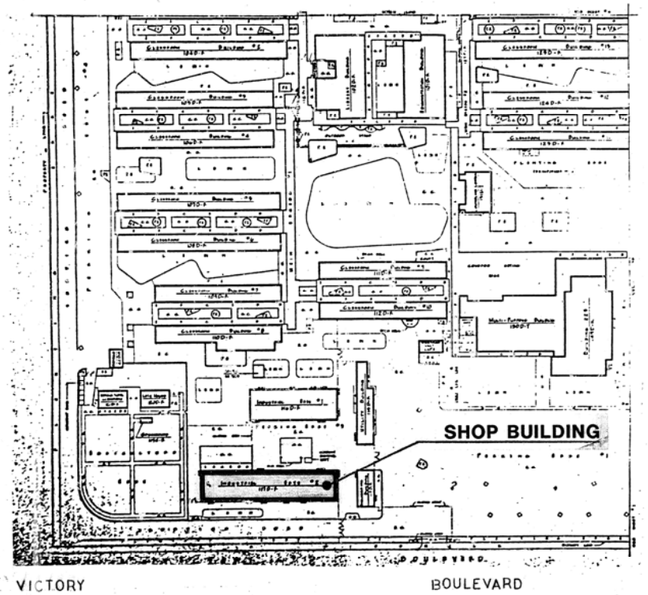
GROUP NO 1447

GENERAL NOTES

1. BACK FILL AND PATCH CONCRETE FLOOR AS REQUIRED FOR HYDROLIC OIL CYLINDERS AND PIPING BELOW FLOOR.
2. INSTALL NEW AUTO HOIST TO CLEAR EXISTING OVERHEAD HEATING UNIT, WHEN HOIST IS IN THE RAISED POSITION, WHERE CONDITION EXISTS. VERIFY LOCATION AND HEIGHT OF HEATING UNIT.
3. PROVIDE DRAINAGE AROUND CYLINDERS SO THAT WATER DOES NOT ACCUMULATE AROUND TOP OF CYLINDER.

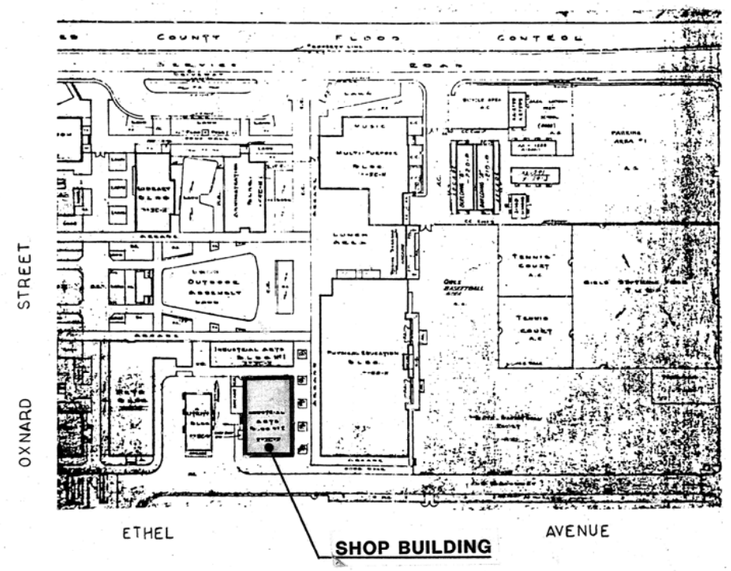
LEGEND

SYMBOL	DESCRIPTION
HO	HYDRAULIC OIL LINE
CA	COMPRESSED AIR LINE
ECA	EXISTING COMPRESSED AIR LINE
	EXISTING AUTO HOIST TO BE REMOVED
P.O.C.	POINT OF CONNECTION



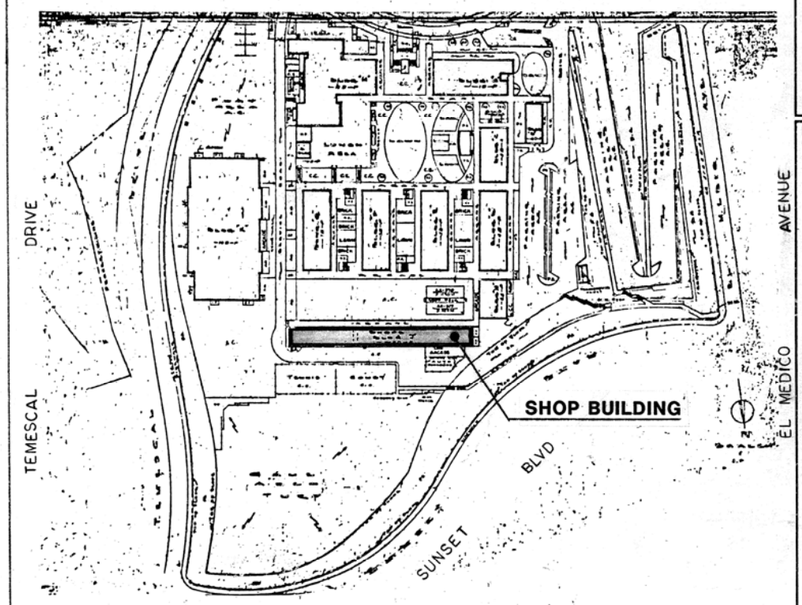
BIRMINGHAM HIGH SCHOOL
17000 HAYNES ST.
VAN NUYS, CA.

SITE PLAN — SCALE NONE — 1



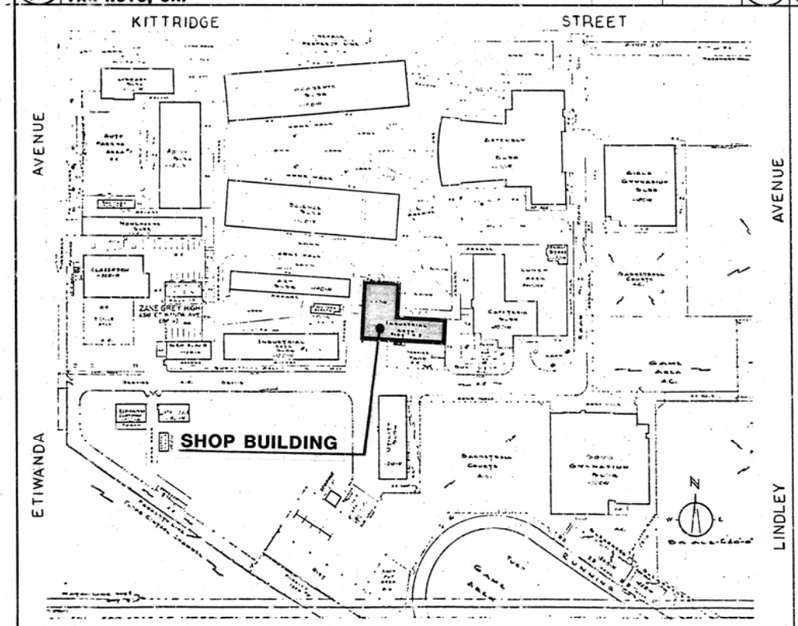
GRANT HIGH SCHOOL
13000 OXNARD ST.
VAN NUYS, CA

SITE PLAN — SCALE NONE — 2



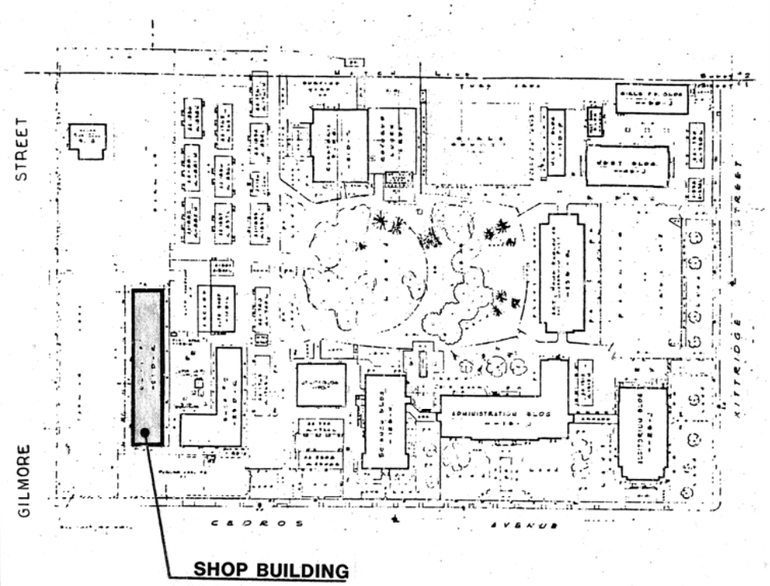
PALISADES HIGH SCHOOL
15777 BOWDOIN ST.
PACIFIC PALISADES, CA

SITE PLAN — SCALE NONE — 3



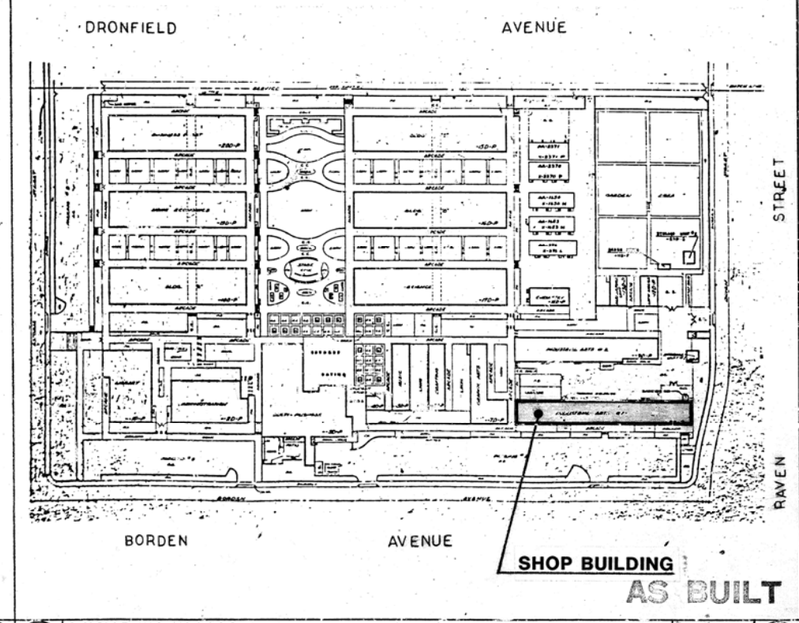
RESEDA HIGH SCHOOL
18230 KITTRIDGE ST.
RESEDA, CA.

SITE PLAN — SCALE NONE — 4



VAN NUYS HIGH SCHOOL
6535 CEDROS AVE.
VAN NUYS, CA

SITE PLAN — SCALE NONE — 5



SYLMAR HIGH SCHOOL
13050 RORDEN AVE.
SYLMAR, CA

SITE PLAN — SCALE NONE — 6

PREPARED BY
SCHOOL BUILDING AND FACILITY SERVICES
ARCHITECTURE AND ENGINEERING BRANCH
1425 SOUTH SAN PEDRO STREET
LOS ANGELES CALIFORNIA

LOS ANGELES UNIFIED SCHOOL DISTRICT • BOARD OF EDUCATION

AUTO HOIST FOR VARIOUS HIGH SCHOOLS, GROUP NO. 1447

SITE PLANS

VARIOUS HIGH SCHOOLS

ARCHITECT
STRUCTURE ENGINEER
MECHANICAL ENGINEER
ELECTRICAL ENGINEER

OFFICE OF THE STATE ARCHITECT

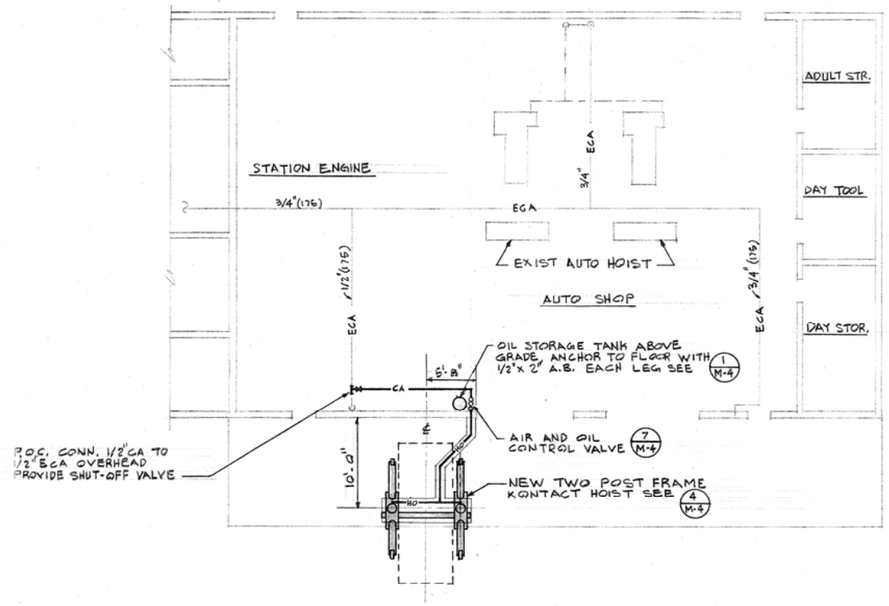
FIRE 1/ARS-JAL

DATE 7/11/84
DRAWN F J
CHECKED J W
JOB NUMBER 8505767

L.A.U.S.D. DWG. NO. M-1

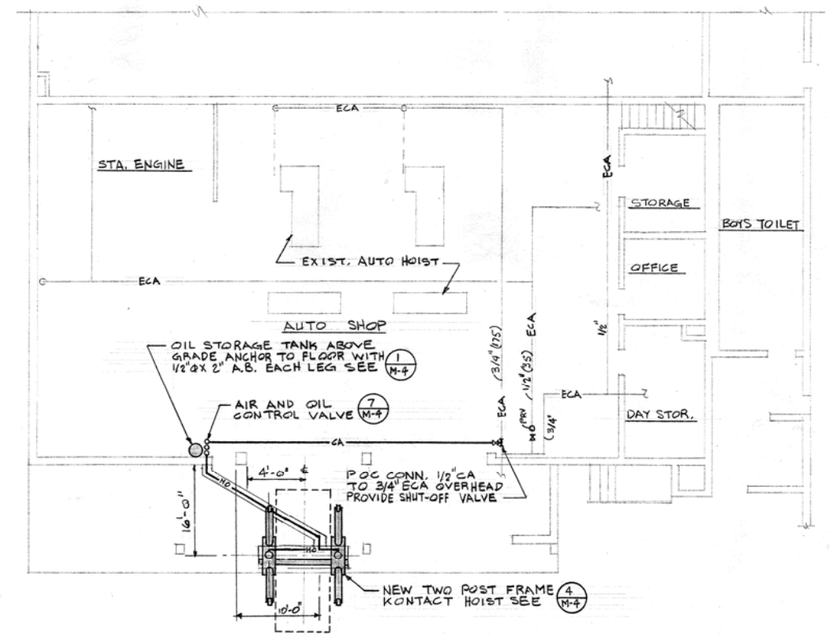
INDEX NUMBER 1

OF SHEETS



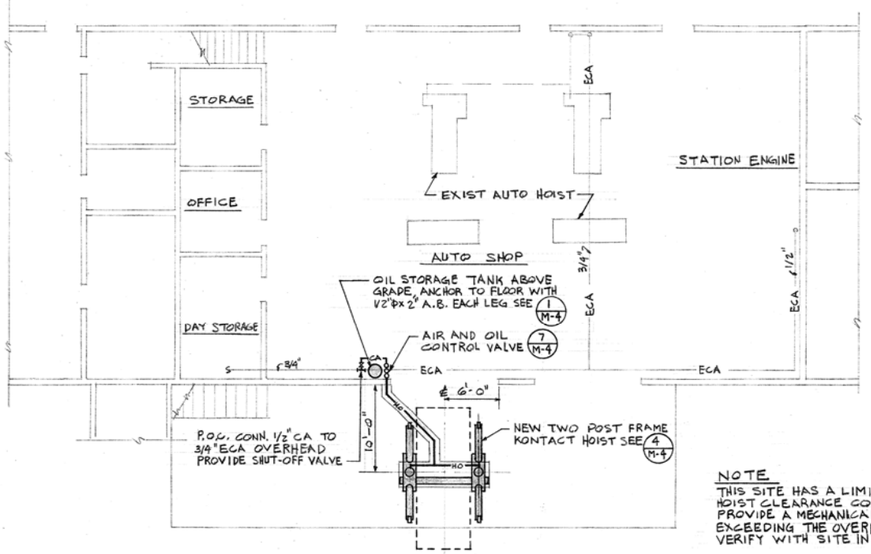
BIRMINGHAM HIGH SCHOOL-AUTO SHOP FLOOR PLAN

SCALE 1/8:1'-0" 2



GRANT HIGH SCHOOL-AUTO SHOP FLOOR PLAN

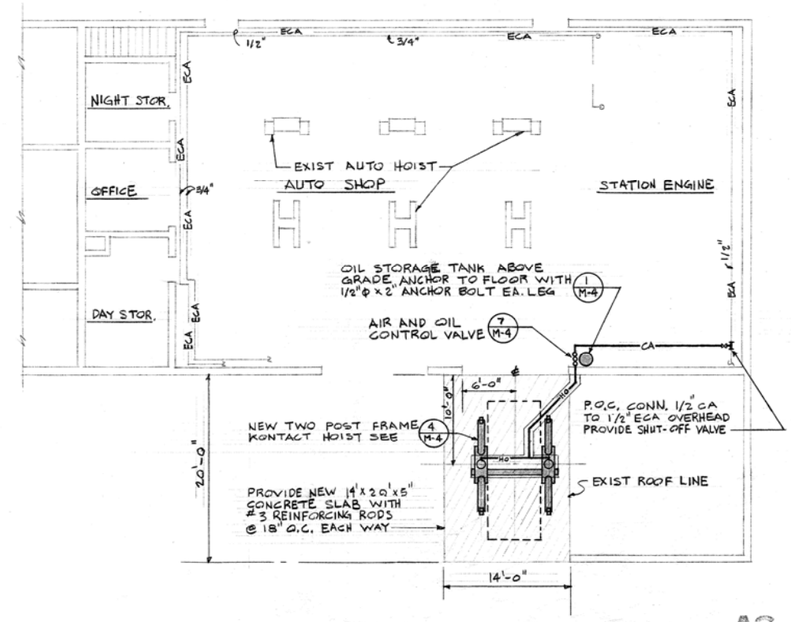
SCALE 1/8:1'-0" 1



NOTE
THIS SITE HAS A LIMITED OVERHEAD HOIST CLEARANCE CONTRACTOR SHALL PROVIDE A MECHANICAL STOP TO PREVENT EXCEEDING THE OVERHEAD LIMIT. VERIFY WITH SITE INSPECTOR.

PALISADES HIGH SCHOOL-AUTO SHOP FLOOR PLAN

SCALE 1/8:1'-0" 4



RESEDA HIGH SCHOOL -AUTO SHOP FLOOR PLAN

SCALE 1/8:1'-0" 3

PREPARED BY
SCHOOL BUILDING AND FACILITY SERVICES
ARCHITECTURE AND ENGINEERING BRANCH
1425 SOUTH SAN PEDRO STREET
LOS ANGELES CALIFORNIA

LOS ANGELES UNIFIED SCHOOL DISTRICT • BOARD OF EDUCATION

AUTO HOIST FOR VARIOUS HIGH SCHOOLS, GROUP NO. 1447

AUTO SHOP FLOOR PLANS

VARIOUS HIGH SCHOOLS

ARCHITECT
STRUCTURAL ENGINEER
MECHANICAL ENGINEER
ELECTRICAL ENGINEER

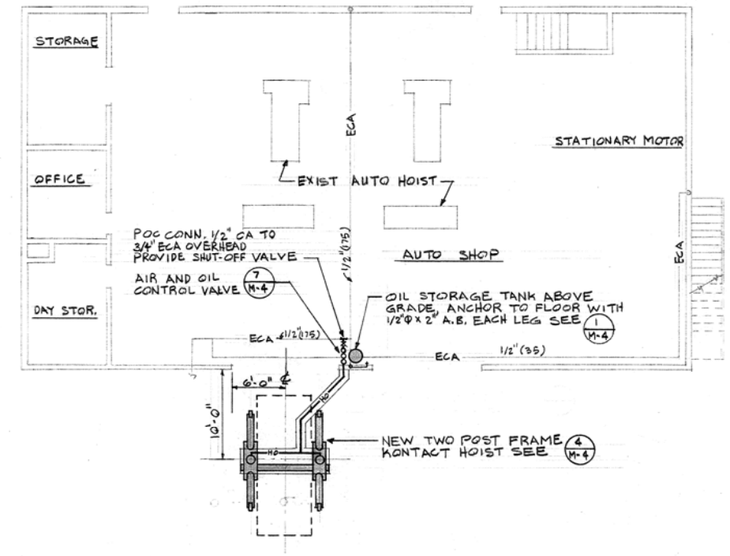
OFFICE OF THE STATE ARCHITECT

FIRE MARSHAL

DATE	DRAWN	CHECKED	JOB NUMBER
7/1/84	F J	J W	8505767

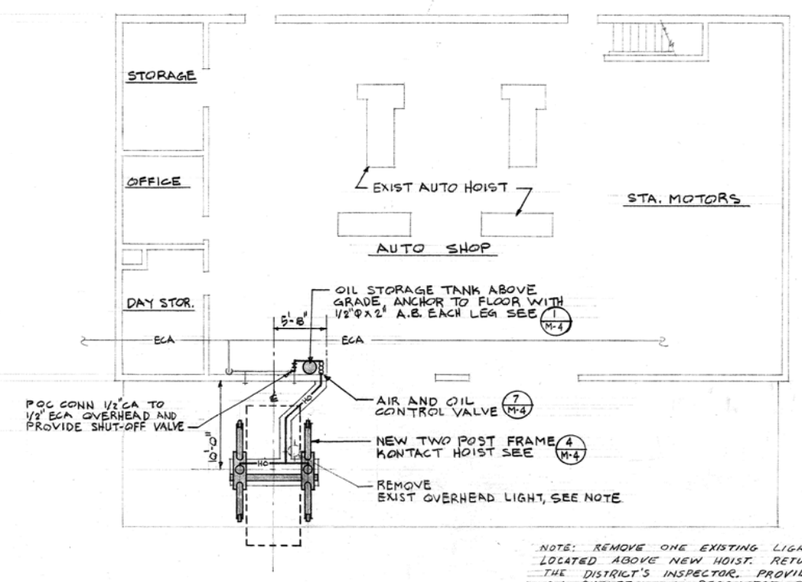
L.A.U.S.D. DWG. NO. M-2

INDEX NUMBER 2 OF SHEETS



VAN NUYS HIGH SCHOOL-AUTO SHOP FLOOR PLAN

SCALE 5



NOTE: REMOVE ONE EXISTING LIGHTING FIXTURE LOCATED ABOVE NEW HOIST. RETURN FIXTURE TO THE DISTRICT'S INSPECTOR. PROVIDE BLANK COVER ON OUTLET AND RECONNECT CIRCUITS THEREIN.

AS BUILT

SYLMAR HIGH SCHOOL-AUTO SHOP FLOOR PLAN

SCALE 1/8"=1'-0" 6

PREPARED BY
SCHOOL BUILDING AND FACILITY SERVICES
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1425 SOUTH SAN PEDRO STREET
LOS ANGELES CALIFORNIA

LOS ANGELES UNIFIED SCHOOL DISTRICT • LOS ANGELES BOARD OF EDUCATION

AUTO HOIST FOR VARIOUS HIGH SCHOOLS, GROUP NO. 1447

AUTO SHOP FLOOR PLANS

VARIOUS HIGH SCHOOLS

ARCHITECT
STRUCTURAL ENGINEER
MECHANICAL ENGINEER
ELECTRICAL ENGINEER

OFFICE OF THE STATE ARCHITECT

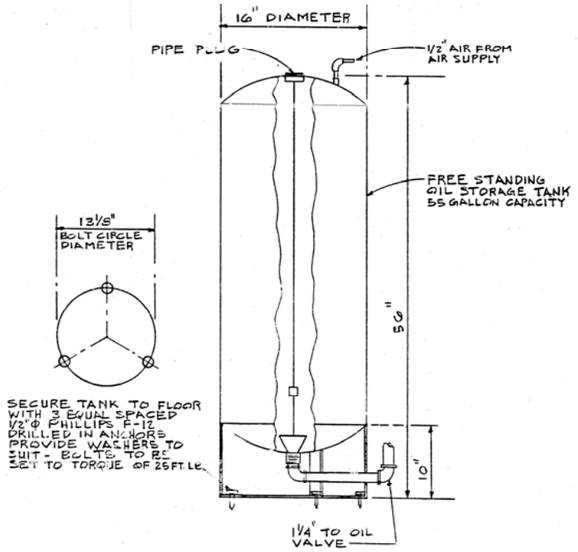
FIRE MARSHAL

DATE 7/1/84
DRAWN F J
CHECKED J W
JOB NUMBER 8505767

L.A.U.S.D. DWG. NO.: M-3

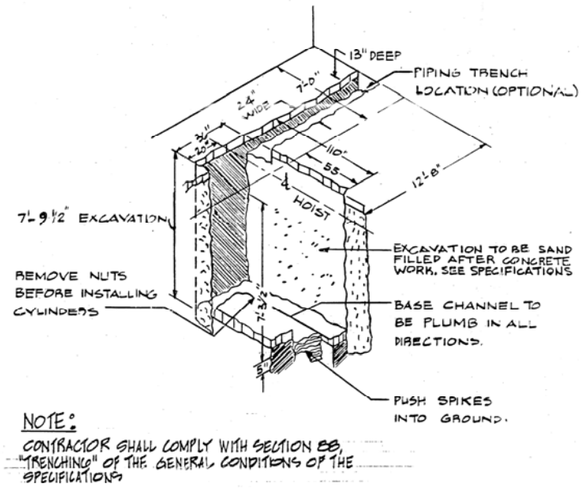
INDEX NUMBER 3 OF SHEETS

6254



OIL TANK DETAIL

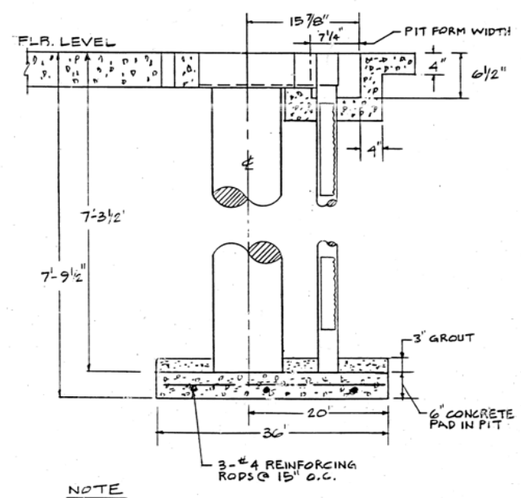
SCALE NONE | 1



NOTE:
CONTRACTOR SHALL COMPLY WITH SECTION 88, "TRENCHING" OF THE GENERAL CONDITIONS OF THE SPECIFICATIONS.

TRENCH DETAIL

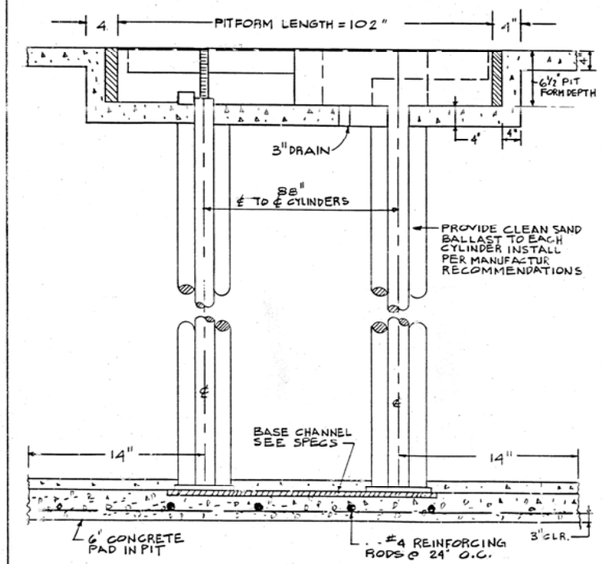
SCALE NONE | 2



NOTE
SEE SPECIFICATIONS FOR DETAIL ON PLACEMENT LEVELLING AND CONCRETE WORK AT BASE CHANNEL.

CYLINDER DETAIL

SCALE NONE | 3



CYLINDER DETAIL

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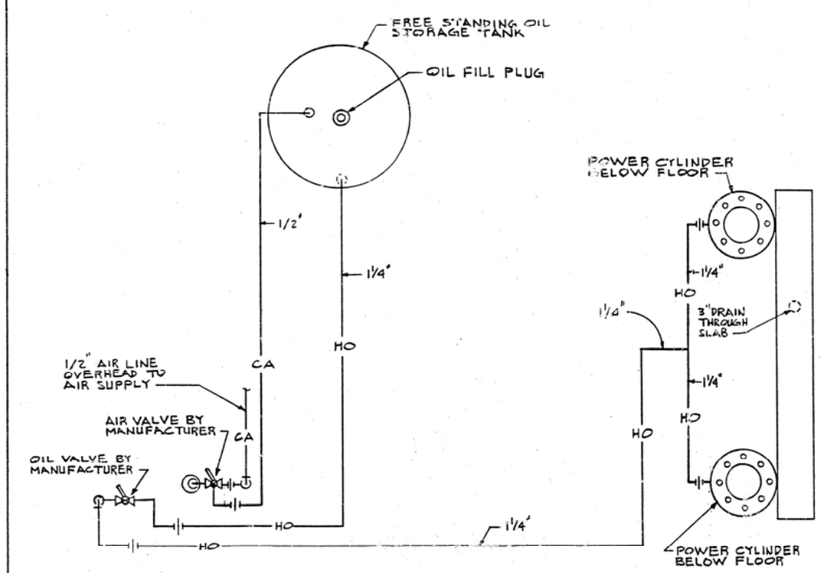
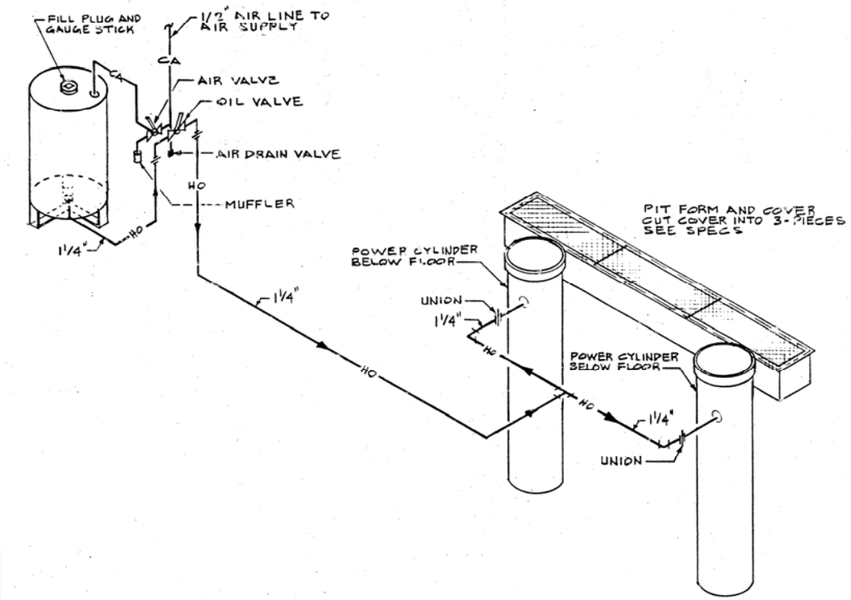


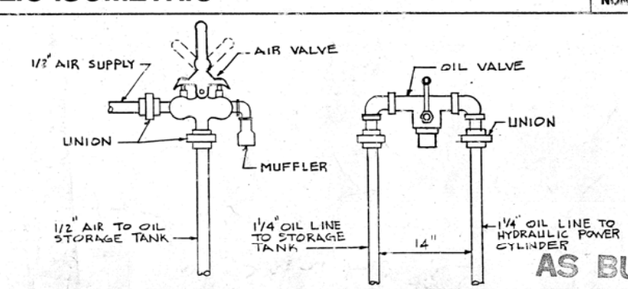
HYDRAULIC SCHEMATIC

SCALE NONE | 6



HYDRAULIC ISOMETRIC

SCALE NONE | 5



AS BUILT

HOIST CONTROL

SCALE NONE | 7

PREPARED BY
SCHOOL BUILDING AND FACILITY SERVICES
ARCHITECTURE AND ENGINEERING BRANCH
1425 SOUTH SAN PEDRO STREET LOS ANGELES CALIFORNIA

LOS ANGELES UNIFIED SCHOOL DISTRICT • BOARD OF EDUCATION

AUTO HOIST FOR VARIOUS HIGH SCHOOLS, GROUP NO. 1447

DETAILS AND SCHEMATICS

ARCHITECT
STRUCTURAL ENGINEER
MECHANICAL ENGINEER
ELECTRICAL ENGINEER

OFFICE OF THE STATE ARCHITECT

FIRE MARSHAL

DATE 7/1/84
DRAWN F.J.
CHECKED J.W.
JOB NUMBER 8505767

LAUSD DWG. NO. M-4

INDEX NUMBER 4 OF SHEETS

6254

Appendix C

Site Inspection Photographs

Appendix C
Subject Property Photographs

The Site, located at 13000 Oxnard Street in the City of Los Angeles, California, is currently occupied by Ulysses S. Grant High School.

Approximately ten (10) one and two story permanent classroom or office buildings are located on the Site, primarily clad in brick.

One and two story bungalow classroom buildings are present in the northwest and southeast corners of the Site.

A large central courtyard with paved areas, planters, and grass is located in the center of the brick buildings which are part of the original construction for the Site.

Covered walkways connect the buildings on the Site surrounding the central courtyard.

A baseball field is located on the central-west side of the Site.

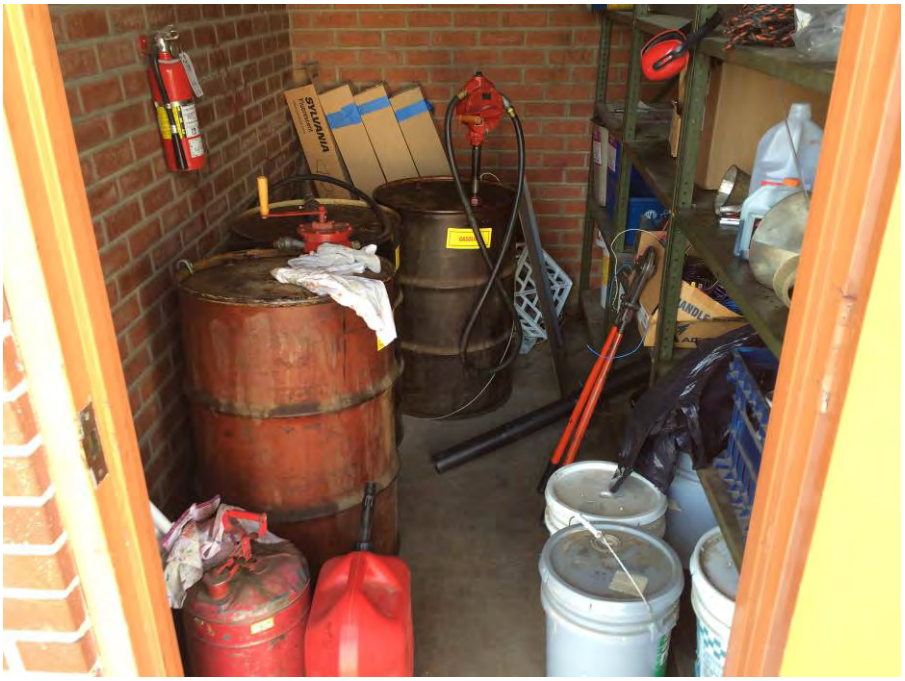
A softball field is located on the central-south side of the Site.

Basketball courts and tennis courts are located in the paved central area of the Site.

A student parking lot is located in the southeast corner of the Site.

An agricultural learning area is located in the northwestern corner of the Site.

Chemicals and hazardous wastes are primarily stored in the custodial/utility building, located centrally on the Site.



The school serves as a local fueling location for nearby schools. Three 55-gallon drums of gasoline are stored on concrete without secondary containment. Minor staining was observed on the concrete floor, which appears to be in good condition.

Universal wastes are stored in the custodial/utility building while awaiting disposal.

Expired chemicals from science classrooms are stored in the custodial/utility building while awaiting disposal.

.

Paint and cleaning supplies are also stored in the custodial/utility building.

Auto hoists which were installed during two separate time frames were historically located in the auto shop. It is believed that the auto hoists are no longer present, but the auto shop was not accessible during the inspection.

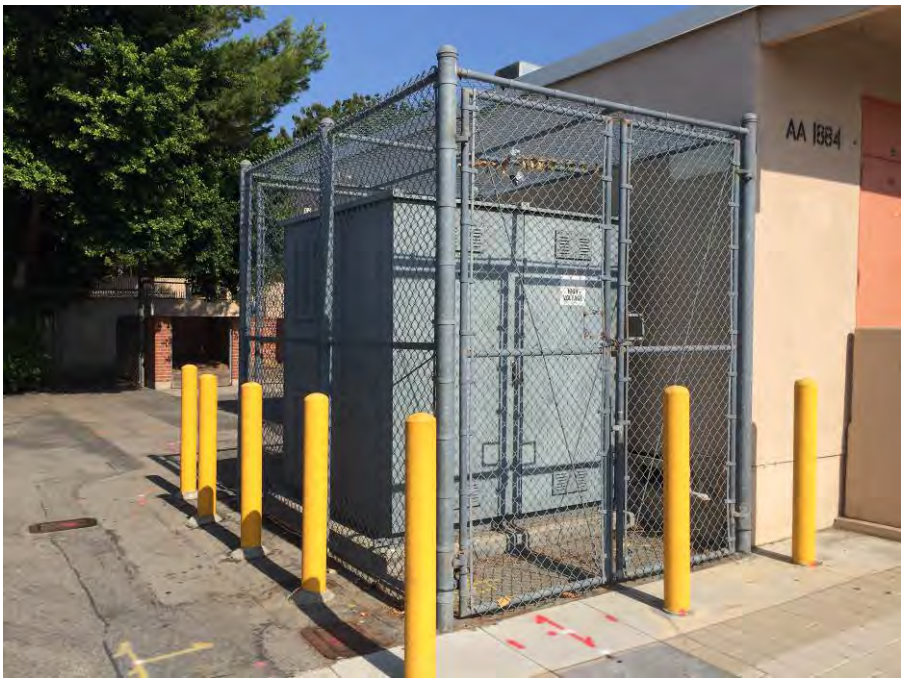
A sub-surface grease trap was observed near the school kitchen.

Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classrooms, and one is located outside Room 108 and is associated with the science classrooms.

Small volumes of chemicals for use in science classrooms are stored in small storage rooms between classrooms in Building 100.

AHERA surveys, O&M records, and disposal records are maintained on-site for all known asbestos containing materials on the Site.

Trash dumpsters for the school are located north of the baseball field.



Approximately twenty (20) transformers are located throughout the school, located in electrical rooms of the buildings and in small gated outdoor areas across the campus. There is a mix of larger transformers, dry type, and smaller step-down transformers. All transformers appear to be in good condition.

A locked transformer compound which is maintained by Los Angeles Department of Water and Power and has a posted sign stating it is certified to be PCB free, is located north of the baseball field.

The boiler room is located on the east side of the custodial/utility building, and houses both the new boiler and the former boiler and circulatory system which is no longer in use. Parts of the former boiler are located on a sub-surface level. The boiler is powered with natural gas and has never had an oil UST associated with it.

One sub-surface vault was observed in the boiler room. The purpose of the vault was not known, but it is thought to be associated with the former boiler no longer in use.

Minor staining and condensation was observed on the concrete floor around the compressor located in the boiler room. The floor appears to be in good condition.

A paint spray booth was observed in Room 502 of the Industrial Arts building. The spray booth did not appear to be in active use and no active air permits were identified.

Oxnard Street is immediately north of the Site. Residential properties and apartment complexes are farther north of the Site.

The Tujunga Wash and Greenbelt is immediately east of the Site. Coldwater Canyon Avenue and residential properties are farther east of the Site. A radio tower field is southeast of the Site.

A large-diameter pipeline with no apparent markings was observed crossing over the Tujunga Wash adjacent to the Site, and was identified as a 25-foot water easement on the Department of Public Works Navigate LA website.

Athletic playfields and a stadium for the Los Angeles Valley College is immediately south of the Site. Burbank Boulevard and residential properties are farther south of the Site.

Ethel Avenue is immediately west of the Site. In order, the Los Angeles Valley College campus, Fulton Avenue and residential properties are farther west of the Site.

Appendix D

Radius Map Report

Grant High School
13000 Oxnard Street
Valley Glen, CA 91401

Inquiry Number: 4647679.2s
June 14, 2016

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Physical Setting Source Map	A-7
Physical Setting Source Map Findings	A-8
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

13000 OXNARD STREET
VALLEY GLEN, CA 91401

COORDINATES

Latitude (North):	34.1774520 - 34˚ 10' 38.82''
Longitude (West):	118.4162810 - 118˚ 24' 58.61''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	369474.2
UTM Y (Meters):	3782543.0
Elevation:	673 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5630789 VAN NUYS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140515
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
13000 OXNARD STREET
VALLEY GLEN, CA 91401

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LAUSD/ GRANT HS	13000 OXNARD ST	HAZNET		TP
A2	LAUSD GRANT HIGH SCH	13000 OXNARD ST	RCRA-SQG, FINDS, ECHO		TP
A3	LA UNI SCH DIST, GRA	13000 OXNARD ST	EMI		TP
4	LONDON CONTINUATION	12924 OXNARD ST	RCRA-LQG	Lower	916, 0.173, NE
5	OXNARD STREET DUMP-V	12800 OXNARD STREET	WMUDS/SWAT	Higher	1023, 0.194, NE
B6	LOS ANGELES VALLEY C	5701 ETHEL AVE	SWEEPS UST	Lower	1304, 0.247, SSW
B7	LOS ANGELES VALLEY C	5701 ETHEL AV	UST	Lower	1304, 0.247, SSW
8	PARCEL # 2201, MTA P	13244-50 W BURBANK B	LUST	Higher	2573, 0.487, SW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
LAUSD/ GRANT HS 13000 OXNARD ST VAN NUYS, CA 91401	HAZNET GEPAID: CAD982024739	N/A
LAUSD GRANT HIGH SCH 13000 OXNARD ST VAN NUYS, CA 91401	RCRA-SQG EPA ID:: CAD982024739 FINDS Registry ID:: 110002780358 ECHO	CAD982024739
LA UNI SCH DIST, GRA 13000 OXNARD ST VAN NUYS, CA 91401	EMI Facility Id: 71572	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

EXECUTIVE SUMMARY

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land
SLIC..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory

Local Lists of Hazardous waste / Contaminated Sites

AOCONCERN ..... San Gabriel Valley Areas of Concern
US HIST CDL ..... Delisted National Clandestine Laboratory Register
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

HIST UST ..... Hazardous Substance Storage Container Database
CA FID UST ..... Facility Inventory Database

Local Land Records

LIENS ..... Environmental Liens Listing
LIENS 2 ..... CERCLA Lien Information
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ..... RCRA - Non Generators / No Longer Regulated
FUDS ..... Formerly Used Defense Sites
DOD ..... Department of Defense Sites
SCRD DRYCLEANERS ..... State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ..... Financial Assurance Information
EPA WATCH LIST ..... EPA WATCH LIST
2020 COR ACTION ..... 2020 Corrective Action Program List
TSCA ..... Toxic Substances Control Act
TRIS ..... Toxic Chemical Release Inventory System
SSTS ..... Section 7 Tracking Systems
ROD ..... Records Of Decision
RMP ..... Risk Management Plans
RAATS ..... RCRA Administrative Action Tracking System
PRP ..... Potentially Responsible Parties
PADS ..... PCB Activity Database System

EXECUTIVE SUMMARY

ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HIST CORTESE	Hazardous Waste & Substance Site List
LOS ANGELES CO. HMS	HMS: Street Number List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List
FUELS PROGRAM	EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/09/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LONDON CONTINUATION	12924 OXNARD ST	NE 1/8 - 1/4 (0.173 mi.)	4	12

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 03/14/2016 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PARCEL # 2201, MTA P Status: Completed - Case Closed Global Id: T0603713153	13244-50 W BURBANK B	SW 1/4 - 1/2 (0.487 mi.)	8	15

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 03/14/2016 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOS ANGELES VALLEY C Facility Id: 24510	5701 ETHEL AV	SSW 1/8 - 1/4 (0.247 mi.)	B7	15

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
OXNARD STREET DUMP-V	12800 OXNARD STREET	NE 1/8 - 1/4 (0.194 mi.)	5	14

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

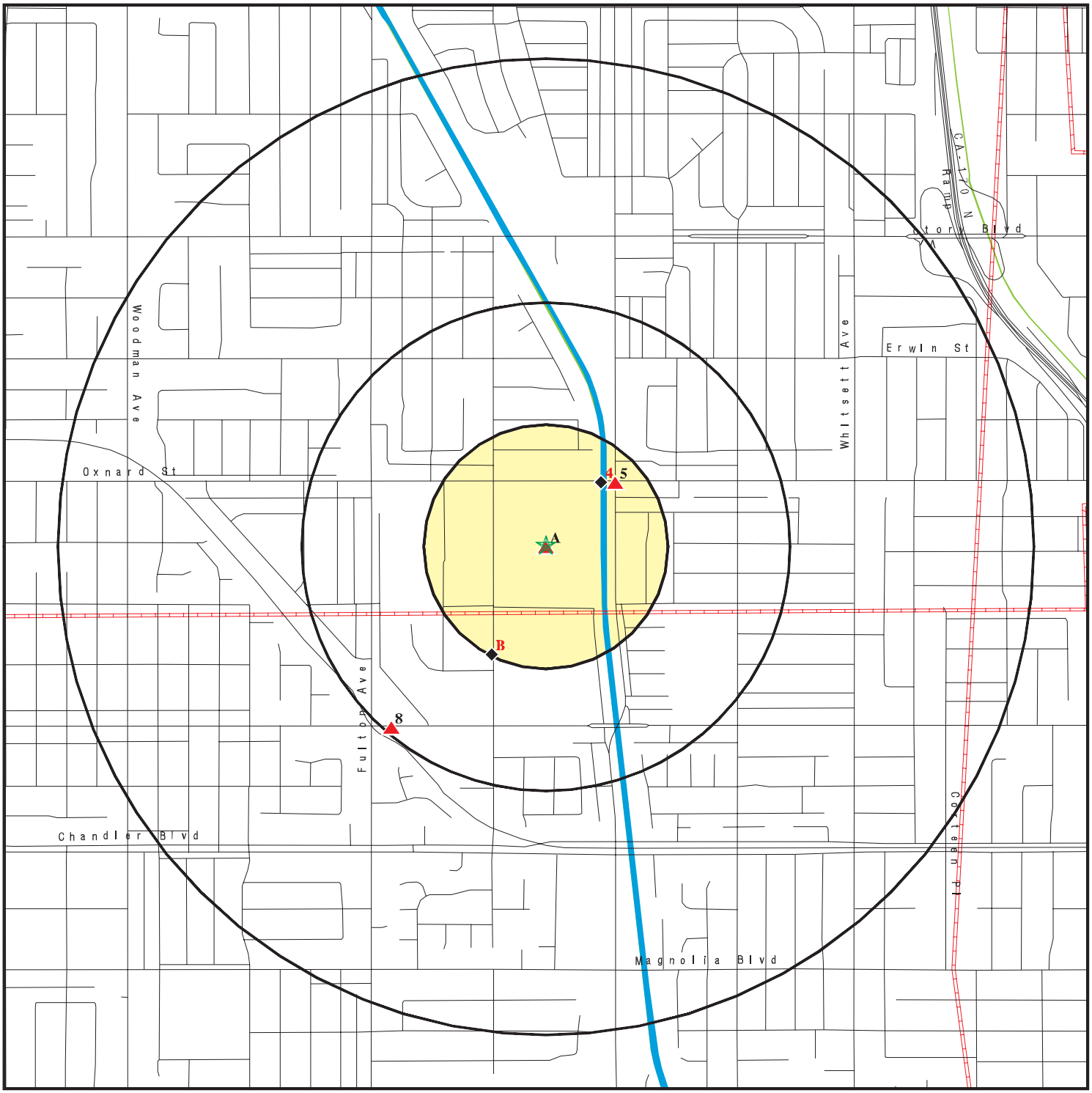
Lower Elevation	Address	Direction / Distance	Map ID	Page
LOS ANGELES VALLEY C Status: A Comp Number: 6090	5701 ETHEL AVE	SSW 1/8 - 1/4 (0.247 mi.)	B6	15

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
MTA - BURBANK BRANCH LINE B-15C	SLIC

OVERVIEW MAP - 4647679.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Grant High School	CLIENT: Waterstone Environmental Inc
ADDRESS: 13000 Oxnard Street Valley Glen CA 91401	CONTACT: Heather Fields
LAT/LONG: 34.177452 / 118.416281	INQUIRY #: 4647679.2s DATE: June 14, 2016 6:40 pm

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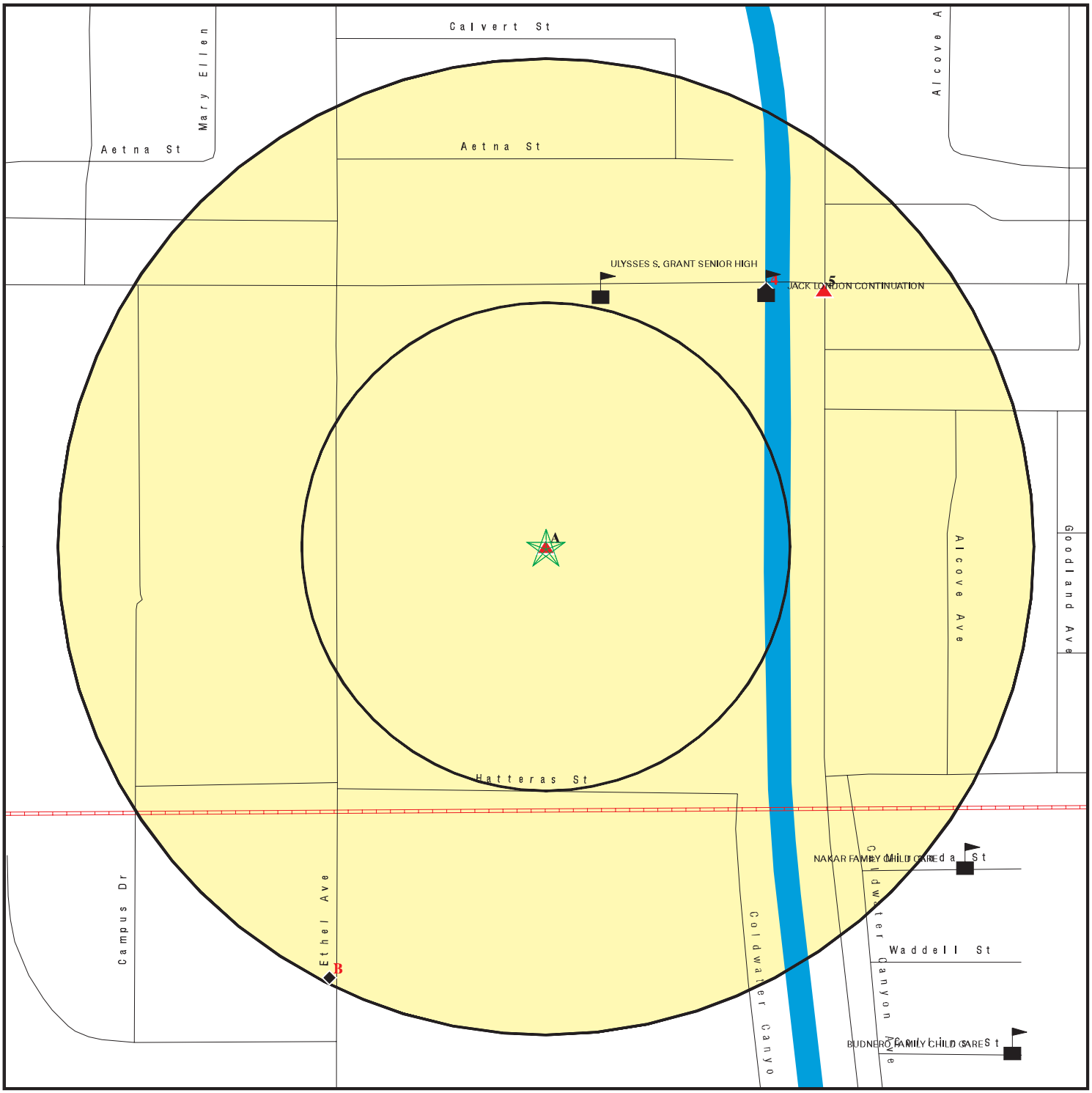
DETAIL MAP - 4647679.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Grant High School	CLIENT: Waterstone Environmental Inc
ADDRESS: 13000 Oxnard Street Valley Glen CA 91401	CONTACT: Heather Fields
LAT/LONG: 34.177452 / 118.416281	INQUIRY #: 4647679.2s DATE: June 14, 2016 6:41 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	1	NR	NR	NR	1
RCRA-SQG	0.250	1	0	0	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	1	0	NR	NR	1
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
AOCONCERN	1.000		0	0	0	0	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP	1	NR	NR	NR	NR	NR	1
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	1	NR	NR	NR	NR	NR	1
HIST CORTESE	0.500		0	0	0	NR	NR	0
LOS ANGELES CO. HMS	TP		NR	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HWT	0.250		0	0	NR	NR	NR	0
MINES	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ECHO	TP	1	NR	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		5	0	4	1	0	0	10

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property | **LAUSD/ GRANT HS**
13000 OXNARD ST
VAN NUYS, CA 91401 | **HAZNET** | **S113012710**
N/A

Site 1 of 3 in cluster A

Actual: 673 ft.

HAZNET:

envid:	S113012710
Year:	2012
GEPAID:	CAD982024739
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	S113012710
Year:	2012
GEPAID:	CAD982024739
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113012710
Year:	2011
GEPAID:	CAD982024739
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE FL 27
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste

LAUSD/ GRANT HS (Continued) **S113012710**

Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113012710
Year:	2011
GEPAID:	CAD982024739
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE FL 27
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113012710
Year:	2009
GEPAID:	CAD982024739
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2.8
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
27 additional CA_HAZNET: record(s) in the EDR Site Report.

A2 Target Property	**LAUSD GRANT HIGH SCHOOL 13000 OXNARD ST VAN NUYS, CA 91401**	**RCRA-SQG FINDS ECHO**	**1000378515 CAD982024739**

Site 2 of 3 in cluster A

Actual: 673 ft.

RCRA-SQG:

Date form received by agency:	03/31/2004
Facility name:	LAUSD--GRANT HS
Facility address:	13000 OXNARD ST. VAN NUYS, CA 90401
EPA ID:	CAD982024739
Mailing address:	333 S. BEAUDRY AVE. 20TH FL LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(213) 241-3199
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LAUSD
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported
Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Municipal
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	LAUSD
Owner/operator address:	333 S. BEAUDRY AVE. 20TH FL LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	State
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/2003
Owner/Op end date:	Not reported

LAUSD GRANT HIGH SCHOOL (Continued) **1000378515**

Owner/operator name: LAUSD
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Municipal
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/31/2004
Site name: LAUSD--GRANT HS
Classification: Large Quantity Generator

. Waste code: D008
. Waste name: LEAD

Date form received by agency: 08/20/1987
Site name: LAUSD GRANT HIGH SCHOOL
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002780358

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

LAUSD GRANT HIGH SCHOOL (Continued) **1000378515**

HAZARDOUS WASTE BIENNIAL REPORTER

ECHO:

Envid:	1000378515
Registry ID:	110002780358
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002780358

A3 Target Property | **LA UNI SCH DIST, GRANT HIGH SC** | **EMI** | **S100866415**
13000 OXNARD ST | **N/A**
VAN NUYS, CA 91401

Site 3 of 3 in cluster A

Actual: 673 ft.

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	71572
Air District Name:	SC
SIC Code:	8211
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

---

4 NE 1/8-1/4 0.173 mi. 916 ft. | **LONDON CONTINUATION HIGH SCHOOL** | **RCRA-LQG** | **1011861591**
12924 OXNARD ST | **CAR000195214**
VAN NUYS, CA 91401

Relative: Lower

Actual: 667 ft.

RCRA-LQG:

Date form received by agency:	09/11/2008
Facility name:	LONDON CONTINUATION HIGH SCHOOL
Facility address:	12924 OXNARD ST VAN NUYS, CA 91401
EPA ID:	CAR000195214
Mailing address:	333 S BEAUDRY AVE 20TH FL LAUSD OEHS LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE 20TH FL LAUSD OEHS LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any

LONDON CONTINUATION HIGH SCHOOL (Continued) **1011861591**

calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DIST
Owner/operator address:	333 S BEAUDRY AVE LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	11/14/1989
Owner/Op end date:	Not reported

Owner/operator name:	LONDON CONTINUATION HIGH SCHOOL
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	11/14/1989
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	D008
. Waste name:	LEAD

Violation Status: No violations found

5 NE 1/8-1/4 0.194 mi. 1023 ft. | **OXNARD STREET DUMP-VAN NUYS**
12800 OXNARD STREET
VAN NUYS, CA | **WMUDS/SWAT** | **S103441380**
N/A

Relative: Higher

Actual: 674 ft.

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	Not reported
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	4
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	LT
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	4 190114NUR
Solid Waste Information ID:	Not reported

B6 SSW 1/8-1/4 0.247 mi. 1304 ft. — **LOS ANGELES VALLEY COLLEGE**, **5701 ETHEL AVE**, **VAN NUYS, CA 91401** — **SWEEPS UST** — **S106928837** / **N/A**

Site 1 of 2 in cluster B

Relative: Lower

Actual: 670 ft.

SWEEPS UST:

Status:	Active
Comp Number:	6090
Number:	4
Board Of Equalization:	Not reported
Referral Date:	02-25-93
Action Date:	02-25-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

B7 SSW 1/8-1/4 0.247 mi. 1304 ft. — **LOS ANGELES VALLEY COLLEGE**, **5701 ETHEL AV**, **VAN NUYS, CA 91401** — **UST** — **U003780926** / **N/A**

Site 2 of 2 in cluster B

Relative: Lower

Actual: 670 ft.

UST:

Facility ID:	24510
Permitting Agency:	LOS ANGELES, CITY OF
Latitude:	34.17402
Longitude:	-118.41817

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8 SW 1/4-1/2 0.487 mi. 2573 ft. — **PARCEL # 2201, MTA PURCHASE**, **13244-50 W BURBANK BLVD**, **VAN NUYS, CA 91401** — **LUST** — **S109117693** / **N/A**

Relative: Higher

Actual: 677 ft.

LUST:

Region:	STATE
Global Id:	T0603713153
Latitude:	34.172848
Longitude:	-118.439995
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/13/2013
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	XS0000236
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Not reported

PARCEL # 2201, MTA PURCHASE (Continued) **S109117693**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603713153
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603713153
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603713153
Status:	Completed - Case Closed
Status Date:	06/13/2013

Global Id:	T0603713153
Status:	Open - Case Begin Date
Status Date:	12/11/2002

Global Id:	T0603713153
Status:	Open - Eligible for Closure
Status Date:	06/11/2013

Global Id:	T0603713153
Status:	Open - Site Assessment
Status Date:	05/15/2003

Regulatory Activities:

Global Id:	T0603713153
Action Type:	Other
Date:	12/11/2002
Action:	Leak Discovery

Global Id:	T0603713153
Action Type:	Other
Date:	02/11/2003
Action:	Leak Reported

Global Id:	T0603713153
Action Type:	ENFORCEMENT
Date:	06/13/2013
Action:	Closure/No Further Action Letter

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
VAN NUYS	S106387134	MTA - BURBANK BRANCH LINE B-15C	BESSEMER		SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: N/A
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 04/18/2016
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/13/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/06/2016	Telephone: 703-603-8704
Date Made Active in Reports: 05/20/2016	Last EDR Contact: 04/08/2016
Number of Days to Update: 135	Next Scheduled EDR Contact: 07/18/2016
	Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/07/2016	Source: EPA
Date Data Arrived at EDR: 04/05/2016	Telephone: 800-424-9346
Date Made Active in Reports: 04/15/2016	Last EDR Contact: 04/05/2016
Number of Days to Update: 10	Next Scheduled EDR Contact: 08/01/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 10

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/05/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/16/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 51

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/15/2016
Date Data Arrived at EDR: 02/17/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 44

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/11/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 49

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/01/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2015
Date Data Arrived at EDR: 12/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/22/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 50

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 05/13/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/18/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 88

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 09/30/2015
Date Data Arrived at EDR: 01/19/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 63

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/18/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 88

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/31/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/25/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 16

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 03/08/2016
Date Data Arrived at EDR: 03/11/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 54

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 57

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/16/2015
Date Data Arrived at EDR: 01/27/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 55

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/27/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 61

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 05/24/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/12/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/12/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/08/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 28

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/09/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/10/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/08/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/04/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 03/11/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 80

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/07/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/24/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/09/2016
Date Data Arrived at EDR: 03/02/2016
Date Made Active in Reports: 04/15/2016
Number of Days to Update: 44

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/03/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 03/28/2016
Date Data Arrived at EDR: 03/30/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 40

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/30/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/08/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 48

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/22/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 53

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/28/2016
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 02/23/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 38

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/15/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 04/11/2016
Date Data Arrived at EDR: 04/12/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 50

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/12/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/29/2016
Date Data Arrived at EDR: 03/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 57

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/16/2016
Date Data Arrived at EDR: 02/17/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/18/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/08/2016
Date Made Active in Reports: 05/16/2016
Number of Days to Update: 69

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/07/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 54

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 02/12/2016
Date Data Arrived at EDR: 03/16/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 89

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/28/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/23/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 05/20/2016
Number of Days to Update: 86

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 48

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/11/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 48

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/11/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 03/21/2016
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 43

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 02/19/2016
Date Data Arrived at EDR: 02/23/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 38

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/28/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/24/2016
Date Data Arrived at EDR: 02/26/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 35

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/22/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 03/07/2016
Number of Days to Update: 31

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 05/02/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/04/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 28

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/04/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/16/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/25/2016
Date Data Arrived at EDR: 01/27/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 26

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 03/01/2016
Date Data Arrived at EDR: 03/03/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 67

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/23/2016
Date Data Arrived at EDR: 02/25/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 36

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 02/09/2016
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 49

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/21/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/30/2016
Date Data Arrived at EDR: 04/01/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 38

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/01/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 04/18/2016
Date Data Arrived at EDR: 04/20/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 42

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/20/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 03/28/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 04/05/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 03/02/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 04/07/2016
Date Data Arrived at EDR: 04/26/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 36

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/01/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 64

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 03/03/2016
Date Data Arrived at EDR: 03/07/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 58

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 47

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/27/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2016
Date Data Arrived at EDR: 05/11/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 21

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/11/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/07/2016
Date Data Arrived at EDR: 03/09/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 56

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/13/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/21/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 04/13/2016
Date Data Arrived at EDR: 04/15/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 47

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/21/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/06/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 56

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/06/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/15/2016
Date Data Arrived at EDR: 03/18/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 52

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 05/09/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 04/06/2016
Date Data Arrived at EDR: 04/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 26

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 04/04/2016
Next Scheduled EDR Contact: 07/04/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 02/24/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 37

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/14/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 05/27/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 55

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/22/2016
Date Data Arrived at EDR: 03/04/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 66

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 05/25/2016
Next Scheduled EDR Contact: 09/12/2016
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 02/10/2016
Date Made Active in Reports: 04/01/2016
Number of Days to Update: 51

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/01/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 64

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 03/18/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/23/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/22/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 48

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/21/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 44

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/08/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 04/05/2016
Date Data Arrived at EDR: 04/08/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 26

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/28/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/01/2016
Date Data Arrived at EDR: 04/05/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 34

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/28/2016
Next Scheduled EDR Contact: 07/11/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 03/14/2016
Date Data Arrived at EDR: 03/15/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 50

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/02/2016
Next Scheduled EDR Contact: 09/19/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 03/08/2016
Date Data Arrived at EDR: 03/11/2016
Date Made Active in Reports: 05/09/2016
Number of Days to Update: 59

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/21/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 53

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/04/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 05/13/2016
Next Scheduled EDR Contact: 08/22/2016
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 53

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/25/2016
Next Scheduled EDR Contact: 08/08/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/26/2016
Date Data Arrived at EDR: 03/17/2016
Date Made Active in Reports: 05/04/2016
Number of Days to Update: 48

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/17/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 04/12/2016
Date Data Arrived at EDR: 04/19/2016
Date Made Active in Reports: 06/01/2016
Number of Days to Update: 43

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 04/04/2016
Next Scheduled EDR Contact: 07/18/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/29/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/13/2016
Next Scheduled EDR Contact: 08/29/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/12/2016
Next Scheduled EDR Contact: 07/25/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/03/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 48

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2016
Next Scheduled EDR Contact: 08/15/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/18/2016
Next Scheduled EDR Contact: 08/01/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/06/2016
Next Scheduled EDR Contact: 09/05/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/13/2016
Next Scheduled EDR Contact: 09/26/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GRANT HIGH SCHOOL
13000 OXNARD STREET
VALLEY GLEN, CA 91401

TARGET PROPERTY COORDINATES

Latitude (North):	34.177452 - 34˚ 10' 38.83''
Longitude (West):	118.416281 - 118˚ 24' 58.61''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	369474.2
UTM Y (Meters):	3782543.0
Elevation:	673 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5630789 VAN NUYS, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

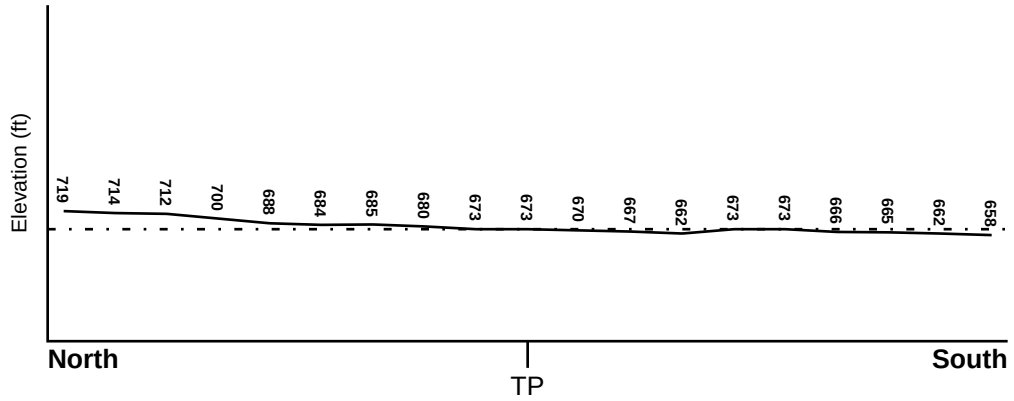
TOPOGRAPHIC INFORMATION

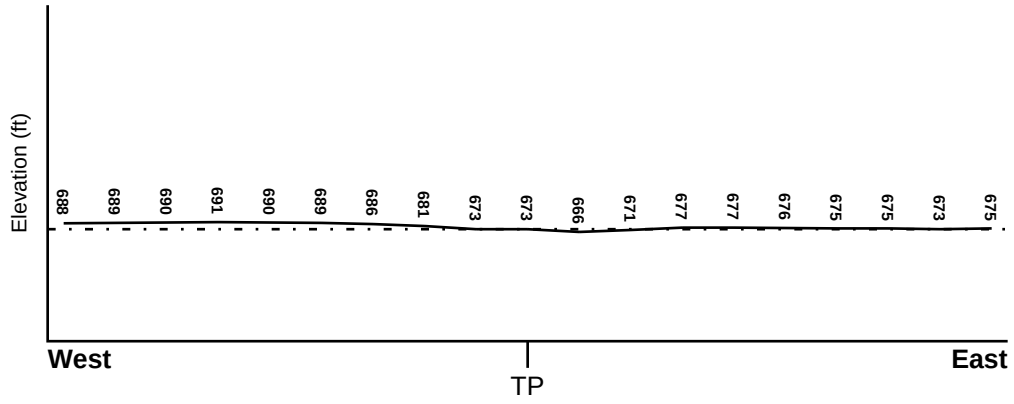
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 673 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
VAN NUYS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	URBAN LAND
Soil Surface Texture:	variable
Hydrologic Group:	Not reported
Soil Drainage Class:	Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel:	Not Reported
Depth to Bedrock Min:	> 10 inches
Depth to Bedrock Max:	> 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Surficial Soil Types: loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Shallow Soil Types: fine sandy loam
gravelly - loam
sand
silty clay

Deeper Soil Types: stratified
clay loam
silty clay loam
gravelly - sandy loam
coarse sand
sand
weathered bedrock
very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

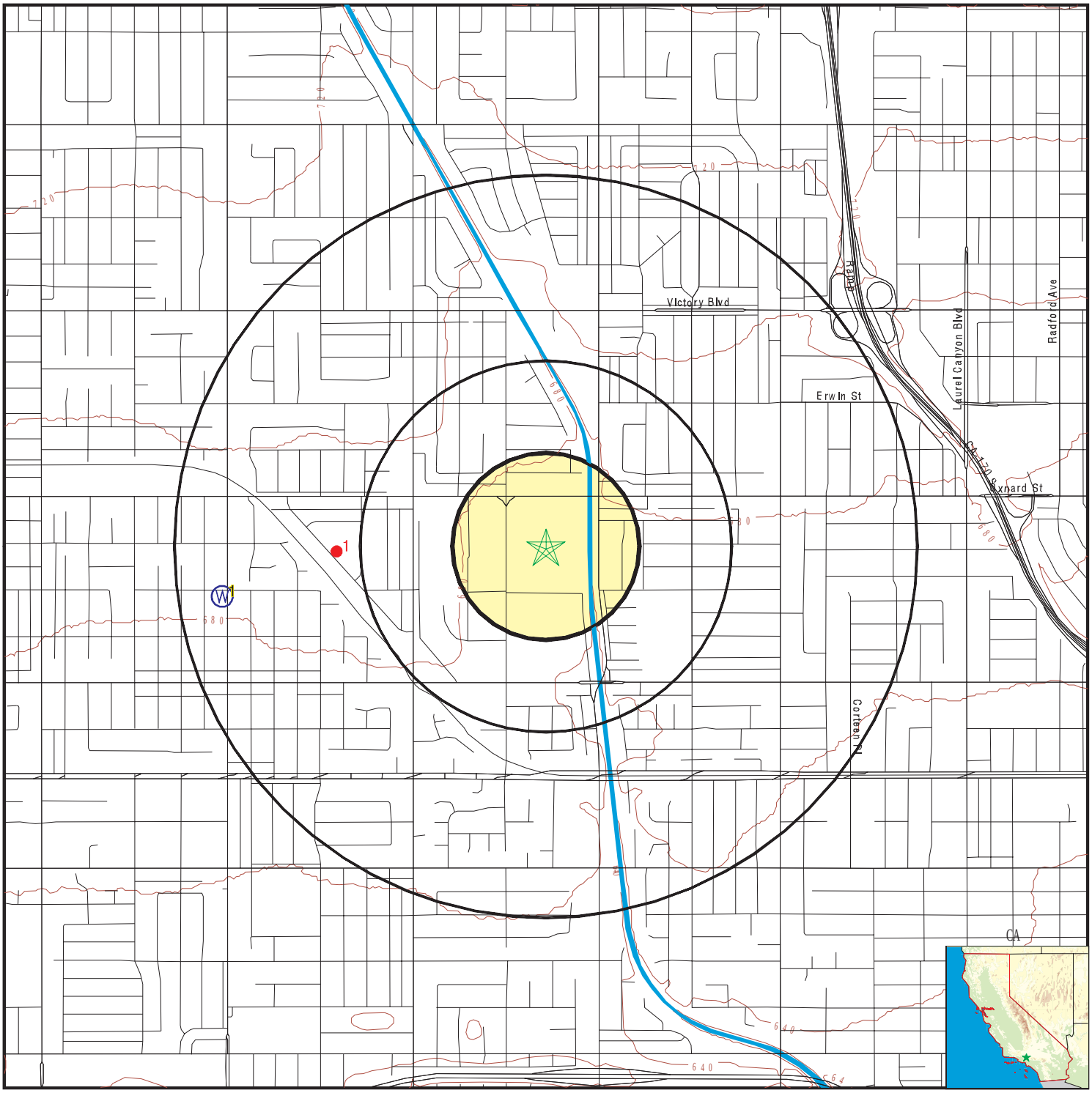
MAP ID	WELL ID	LOCATION FROM TP
1	CADW60000005579	1/2 - 1 Mile West

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000205043	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 4647679.2s



0 1/4 1/2 1 Miles

- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Grant High School	CLIENT: Waterstone Environmental Inc
ADDRESS: 13000 Oxnard Street Valley Glen CA 91401	CONTACT: Heather Fields
LAT/LONG: 34.177452 / 118.416281	INQUIRY #: 4647679.2s DATE: June 14, 2016 6:42 pm

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Map ID Direction Distance Elevation	Database	EDR ID Number
1 **West** **1/2 - 1 Mile** **Higher**	**CA WELLS**	**CADW60000005579**

Objectid:	5579
Latitude:	34.175498
Longitude:	-118.43149
Site code:	341755N1184315W001
State well numbe:	01N15W15A002S
Local well name:	'3762E'
Well use id:	1
Well use descrip:	Observation
County id:	19
County name:	Los Angeles
Basin code:	'4-12'
Basin desc:	San Fernando Valley
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000005579

Map ID Direction Distance		Database	EDR ID Number
1 **West** **1/2 - 1 Mile**		**OIL_GAS**	**CAOG11000205043**

District nun:	1	Api number:	03705969
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	14
Township:	01N	Range:	15W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Hazeltine C.H.	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000205043		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
91401	66	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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LAUSD/ GRANT HS
13000 OXNARD ST
VAN NUYS, CA 91401

Inquiry Number:
June 27, 2016

EDR Site Report™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

The EDR-Site Report™ is a comprehensive presentation of government filings on a facility identified in a search of federal, state and local environmental databases. The report is divided into three sections:

Section 1: Facility Summary . . . . . Page 3

Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

Section 2: Facility Detail Reports . . . . . Page 4

All available detailed information from databases where sites are identified.

Section 3: Databases and Update Information. . . . . Page 12

Name, source, update dates, contact phone number and description of each of the databases for this report.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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SECTION 1: FACILITY SUMMARY

FACILITY AREA	FACILITY 1 **LAUSD/ GRANT HS** 13000 OXNARD ST VAN NUYS, CA 91401 EDR ID #S113012710
WASTE MANAGEMENT Facility generates hazardous waste (RCRA)	NO
Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSDF)	NO
Facility has received Notices of Violations (RCRA/VIOL)	NO
Facility has been subject to RCRA administrative actions (RAATS)	NO
Facility has been subject to corrective actions (CORRACTS)	NO
Facility handles PCBs (PADS)	NO
Facility uses radioactive materials (MLTS)	NO
Facility is a FUSRAP Site	NO
Facility is a UXO Site	NO
Facility is a FUELS Site	NO
Facility is an DockHWC/ECHO Site	NO
Facility manages registered aboveground storage tanks (AST)	NO
Facility manages registered underground storage tanks (UST)	NO
Facility has reported leaking underground storage tank incidents (LUST)	NO
Facility has reported emergency releases to the soil (ERNS)	NO
Facility has reported hazardous material incidents to DOT (HMIRS)	NO
WASTE DISPOSAL Facility is a Superfund Site (NPL)	NO
Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (SEMS)	NO
Facility has a reported Superfund Lien on it (LIENS)	NO
Facility is listed as a state hazardous waste site (SHWS)	NO
Facility has disposed of solid waste on-site (SWF/LF)	NO
MULTIMEDIA Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS)	NO
Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)	NO
Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)	NO
Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)	NO
Facility is listed in EPA's index system (FINDS)	NO
Facility is listed in other database records (OTHER)	**YES - p4**
POTENTIAL SUPERFUND LIABILITY Facility has a list of potentially responsible parties PRP	NO
TOTAL (YES)	1

SECTION 2: FACILITY DETAIL REPORTS

MULTIMEDIA

Facility is listed in other database records

DATABASE: Other Database Records (OTHER)

LAUSD/ GRANT HS
13000 OXNARD ST
VAN NUYS, CA 91401
EDR ID #S113012710

HAZNET:

envid:	S113012710
Year:	2012
GEPAID:	CAD982024739
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	S113012710
Year:	2012
GEPAID:	CAD982024739
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Los Angeles
TSD EPA ID:	CAD009007626
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113012710
Year:	2011
GEPAID:	CAD982024739
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE FL 27
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Los Angeles

envid:	S113012710
Year:	2011
GEPAID:	CAD982024739
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE FL 27
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported

TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 16
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113012710
Year: 2009
GEPAID: CAD982024739
Contact: SOE AUNG / ECM
Telephone: 2132413199
Mailing Name: Not reported
Mailing Address: 333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 2.8
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113012710
Year: 2009
GEPAID: CAD982024739
Contact: SOE AUNG / ECM
Telephone: 2132413199
Mailing Name: Not reported
Mailing Address: 333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD028400901
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.015
Cat Decode: Other inorganic solid waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113012710
Year: 2009
GEPAID: CAD982024739
Contact: SOE AUNG / ECM
Telephone: 2132413199
Mailing Name: Not reported
Mailing Address: 333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 1.6
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113012710
Year: 2008
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

Tons: 14
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113012710
Year: 2007
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 8
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Los Angeles

envid: S113012710
Year: 2007
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: 2.55
Cat Decode: Unspecified organic liquid mixture
Method Decode: Not reported
Facility County: Los Angeles

envid: S113012710
Year: 2007
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Laboratory waste chemicals
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.03
Cat Decode: Laboratory waste chemicals
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: S113012710
Year: 2007
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: Not reported
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Los Angeles

envid: S113012710

Year:	2006
GEPAID:	CAD982024739
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD980675276
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Treatment, Tank
Tons:	33.71
Cat Decode:	Other inorganic solid waste
Method Decode:	Treatment, Tank
Facility County:	Los Angeles

envid:	S113012710
Year:	2006
GEPAID:	CAD982024739
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Unspecified aqueous solution
Disposal Method:	Recycler
Tons:	1.89
Cat Decode:	Unspecified aqueous solution
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113012710
Year:	2006
GEPAID:	CAD982024739
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Tons:	0
Cat Decode:	Laboratory waste chemicals
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113012710
Year:	2006
GEPAID:	CAD982024739
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Tons:	0.03
Cat Decode:	Laboratory waste chemicals
Method Decode:	Transfer Station
Facility County:	Los Angeles

envid:	S113012710
Year:	2006
GEPAID:	CAD982024739
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Transfer Station
Tons:	0.02

Cat Decode: Laboratory waste chemicals
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113012710
Year: 2005
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Tons: 0.37
Cat Decode: Other inorganic solid waste
Method Decode: Disposal, Land Fill
Facility County: Los Angeles

envid: S113012710
Year: 2005
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD980884183
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: 0.27
Cat Decode: Other inorganic solid waste
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113012710
Year: 2005
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 0.16
Cat Decode: Asbestos containing waste
Method Decode: Not reported
Facility County: Los Angeles

envid: S113012710
Year: 2004
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 84.28
Cat Decode: Asbestos containing waste
Method Decode: Not reported
Facility County: Los Angeles

envid: S113012710
Year: 2003
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported

TSD EPA ID: CAT000646117
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Other
Tons: 33.71
Cat Decode: Other inorganic solid waste
Method Decode: Disposal, Other
Facility County: Los Angeles

envid: S113012710
Year: 2000
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 27.81
Cat Decode: Asbestos containing waste
Method Decode: Disposal, Land Fill
Facility County: Los Angeles

envid: S113012710
Year: 2000
GEPAID: CAD982024739
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 3.33
Cat Decode: Oil/water separation sludge
Method Decode: Recycler
Facility County: Los Angeles

envid: S113012710
Year: 1999
GEPAID: CAD982024739
Contact: LOS ANGELES USD
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 1449 S SAN PEDRO ST
Mailing City,St,Zip: LOS ANGELES, CA 900153119
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 4.2140
Cat Decode: Asbestos containing waste
Method Decode: Not reported
Facility County: Los Angeles

envid: S113012710
Year: 1999
GEPAID: CAD982024739
Contact: LOS ANGELES USD
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 1449 S SAN PEDRO ST
Mailing City,St,Zip: LOS ANGELES, CA 900153119
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: .4750
Cat Decode: Other inorganic solid waste
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113012710
Year: 1999
GEPAID: CAD982024739
Contact: LOS ANGELES USD

Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	31.6050
Cat Decode:	Asbestos containing waste
Method Decode:	Disposal, Land Fill
Facility County:	Los Angeles

envid:	S113012710
Year:	1997
GEPAID:	CAD982024739
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAL000027741
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	29.4980
Cat Decode:	Asbestos containing waste
Method Decode:	Disposal, Land Fill
Facility County:	Los Angeles

envid:	S113012710
Year:	1996
GEPAID:	CAD982024739
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Recycler
Tons:	.0150
Cat Decode:	Laboratory waste chemicals
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113012710
Year:	1996
GEPAID:	CAD982024739
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Disposal, Other
Tons:	.0100
Cat Decode:	Other inorganic solid waste
Method Decode:	Disposal, Other
Facility County:	Los Angeles

envid:	S113012710
Year:	1996
GEPAID:	CAD982024739
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD044429835
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus inorganics
Disposal Method:	Recycler
Tons:	.0075
Cat Decode:	Off-specification, aged or surplus inorganics
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	S113012710
Year:	1993
GEPAID:	CAD982024739
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	1.4595
Cat Decode:	Waste oil and mixed oil
Method Decode:	Recycler
Facility County:	Los Angeles

SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

Elapsed ASTM days: Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

DATABASES FOUND IN THIS REPORT

CA HAZNET: Facility and Manifest Data
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Database Release Frequency: Annually
Date of Last EDR Contact: 04/15/2016
Date of Next Scheduled Update: 07/25/2016

Appendix E

Sanborn Map Report

Grant High School

13000 Oxnard Street

Valley Glen, CA 91401

Inquiry Number: 4647679.3

June 14, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

06/14/16

Site Name:	Client Name:
Grant High School	Waterstone Environmental Inc
13000 Oxnard Street	2936 E. Coronado Street
Valley Glen, CA 91401	Anaheim, CA 92806
EDR Inquiry # 4647679.3	Contact: Heather Fields

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Waterstone Environmental Inc were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # FAD3-40B7-9D78

PO # 16-145

Project LAUSD Grant HS

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: FAD3-40B7-9D78

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix F

Aerial Photographs

Grant High School

13000 Oxnard Street

Valley Glen, CA 91401

Inquiry Number: 4647679.9

June 16, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/16/16

Site Name:

Grant High School
13000 Oxnard Street
Valley Glen, CA 91401
EDR Inquiry # 4647679.9

Client Name:

Waterstone Environmental Inc
2936 E. Coronado Street
Anaheim, CA 92806
Contact: Heather Fields

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Flight Date: June, 10 2002	USDA
1994	1"=500'	Acquisition Date: May, 31 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August, 22 1989	USDA
1983	1"=500'	Flight Date: November, 19 1983	EDR Proprietary Brewster Pacific
1981	1"=500'	Flight Date: February, 21 1981	EDR Proprietary Brewster Pacific
1977	1"=500'	Flight Date: April, 25 1977	EDR Proprietary Brewster Pacific
1972	1"=500'	Flight Date: November, 09 1972	EDR Proprietary Brewster Pacific
1967	1"=500'	Flight Date: August, 13 1967	USGS
1964	1"=500'	Flight Date: July, 28 1964	USGS
1952	1"=500'	Flight Date: July, 10 1952	USGS
1947	1"=500'	Flight Date: August, 15 1947	USGS
1938	1"=500'	Flight Date: May, 13 1938	USDA
1928	1"=500'	Flight Date: January, 01 1928	FAIR

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 4647679.9
YEAR: 2012
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 2010
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 2002
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 1994
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 1989
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 1983
= 500'
N
EDR

INQUIRY #: 4647679.9
YEAR: 1981
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N
EDR

INQUIRY #: 4647679.9
YEAR: 1977
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N
EDR

INQUIRY #: 4647679.9
YEAR: 1972
= 500'
N
EDR

INQUIRY #: 4647679.9

YEAR: 1967

= 500'

N

EDR

INQUIRY #: 4647679.9
YEAR: 1964
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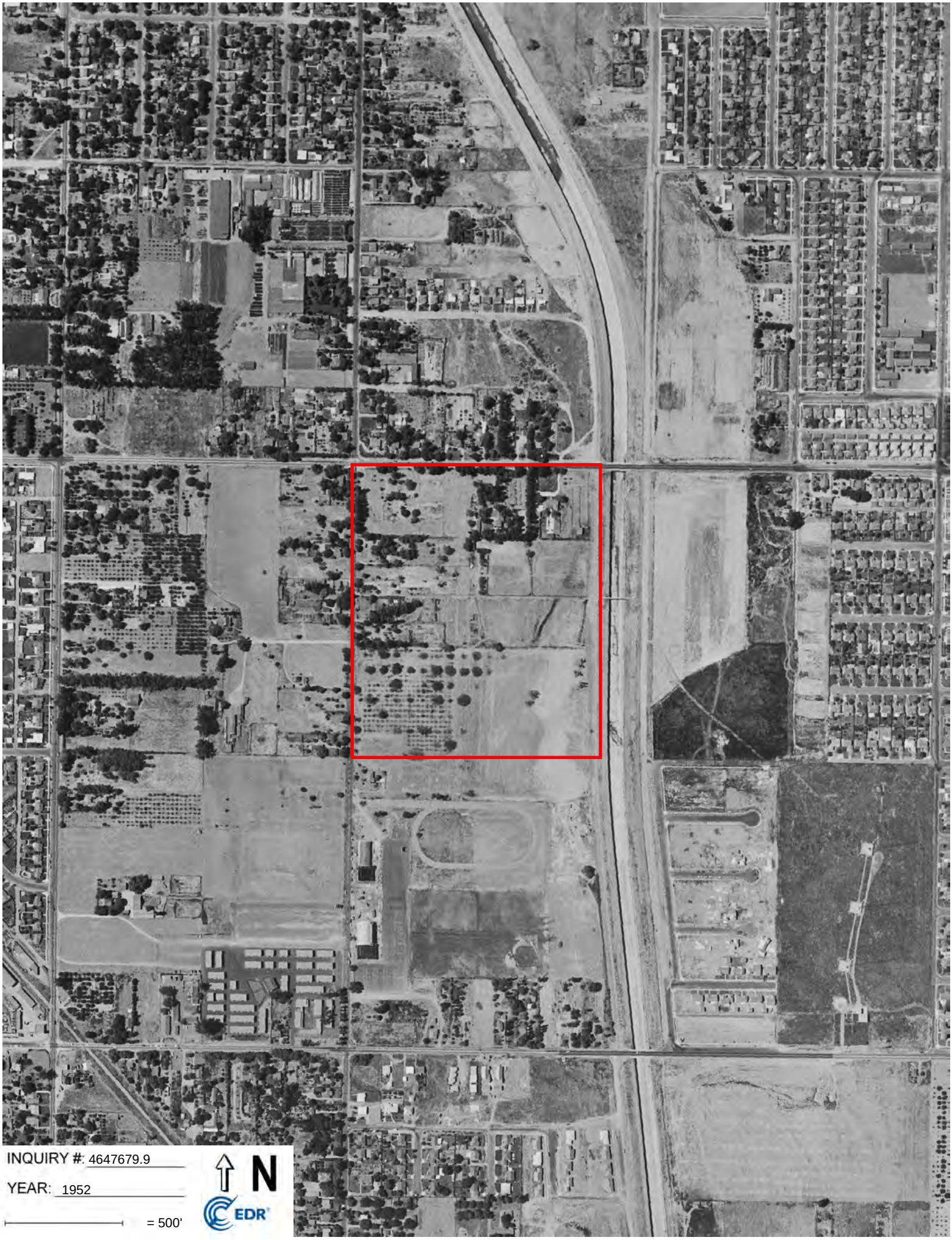
N
EDR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YEAR: 1952
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EDR

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YEAR: 1947
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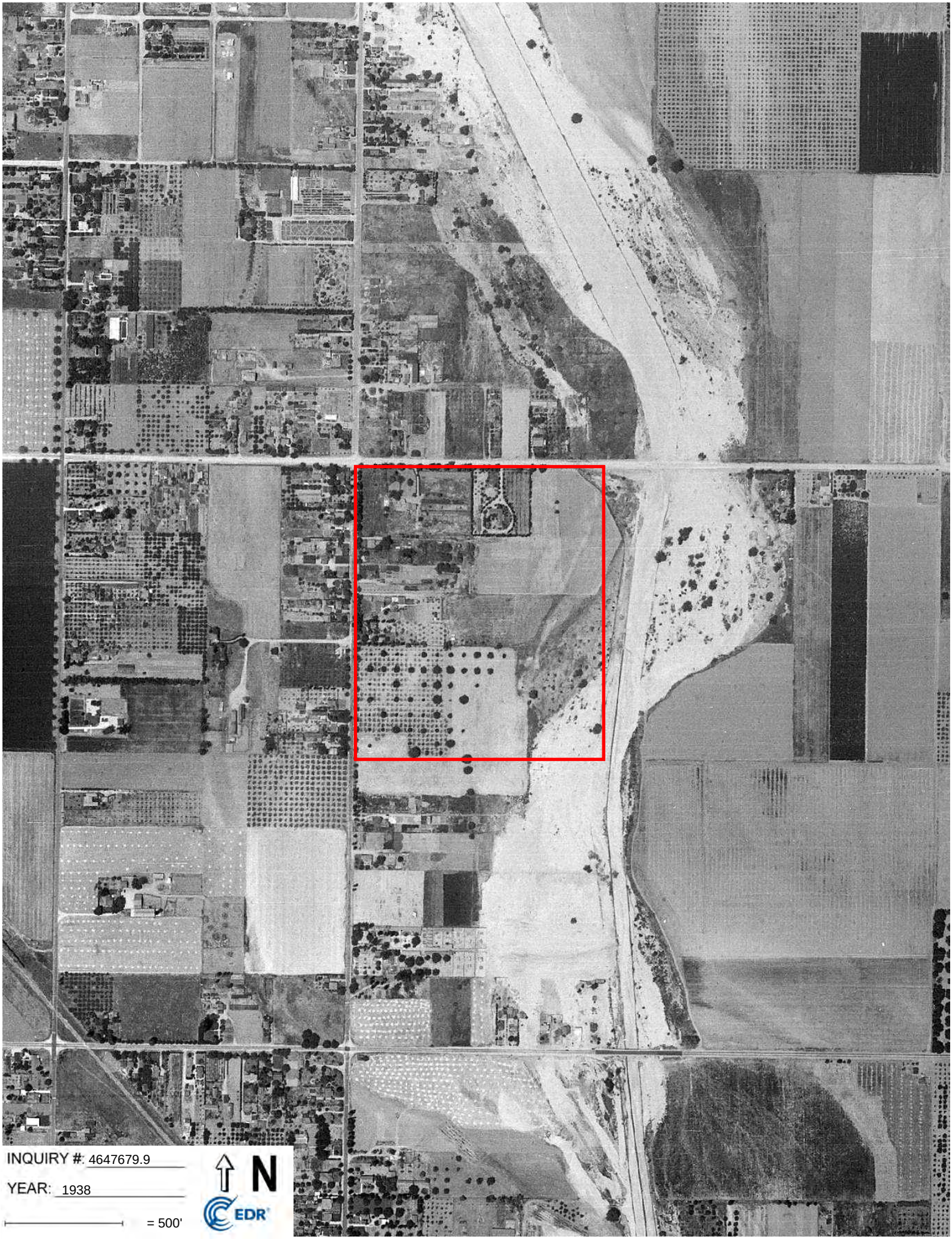
EDR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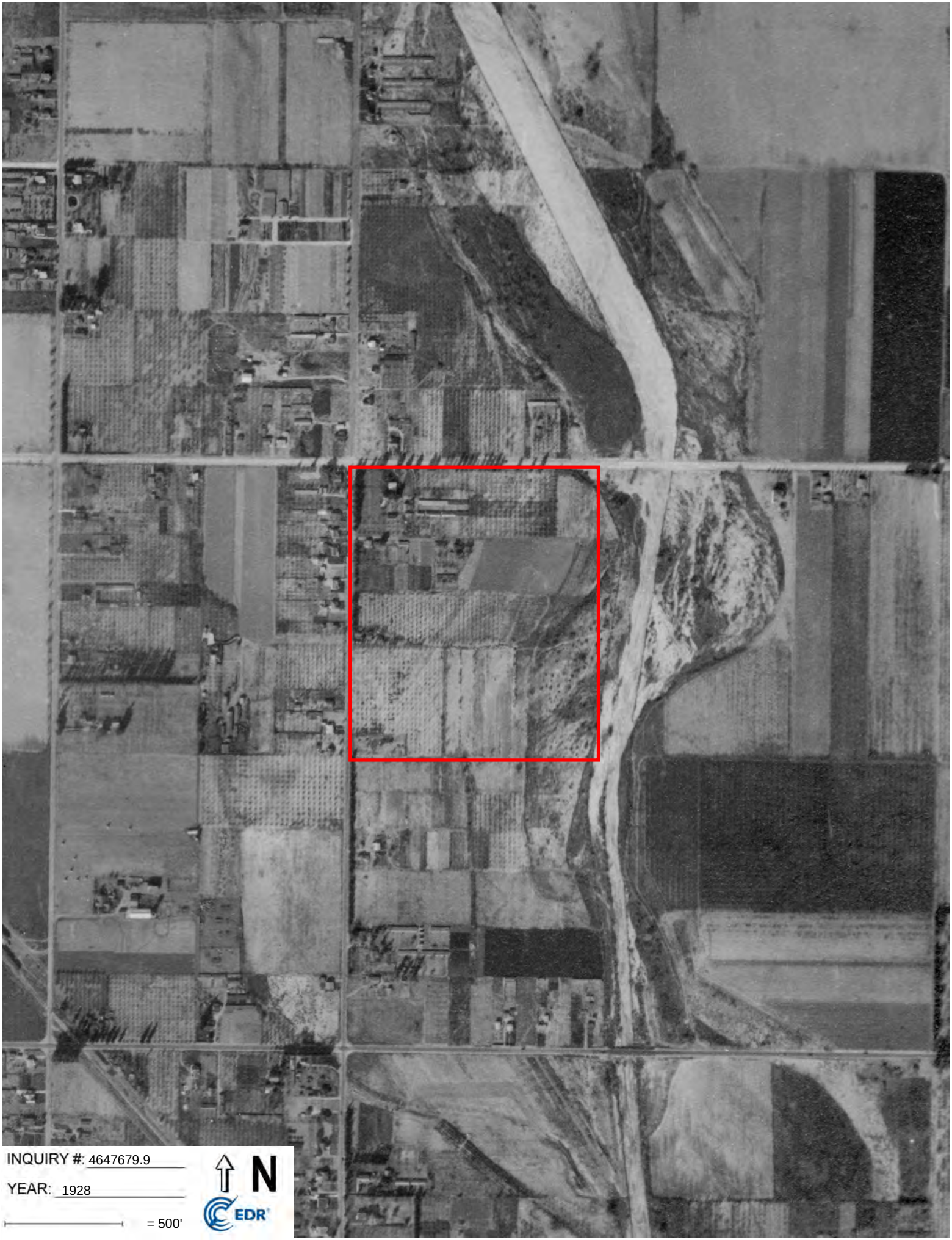
EDR


INQUIRY #: 4647679.9
YEAR: 1928
= 500'
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EDR

Appendix G

Topographic Map Report

Grant High School
13000 Oxnard Street
Valley Glen, CA 91401

Inquiry Number: 4647679.4
June 14, 2016

EDR Historical Topo Map Report
with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

06/14/16

Site Name:	Client Name:
Grant High School	Waterstone Environmental Inc
13000 Oxnard Street	2936 E. Coronado Street
Valley Glen, CA 91401	Anaheim, CA 92806
EDR Inquiry # 4647679.4	Contact: Heather Fields

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Waterstone Environmental Inc were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
P.O.#	16-145	**Latitude:**	34.177452 34° 10' 39" North
Project:	LAUSD Grant HS	**Longitude:**	-118.416281 -118° 24' 59" West
		UTM Zone:	Zone 11 North
		UTM X Meters:	369477.17
		UTM Y Meters:	3782738.12
		Elevation:	672.00' above sea level

Maps Provided:

2012	1900
1972	1898
1966	1896
1953	1894
1926	
1924	
1921	
1902	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Van Nuys
2012
7.5-minute, 24000

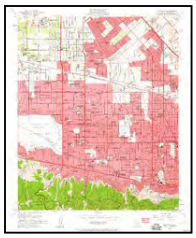
1972 Source Sheets

Van Nuys
1972
7.5-minute, 24000
Photo Revised 1972
Aerial Photo Revised 1972

1966 Source Sheets

Van Nuys
1966
7.5-minute, 24000
Aerial Photo Revised 1964
Edited 1953

1953 Source Sheets



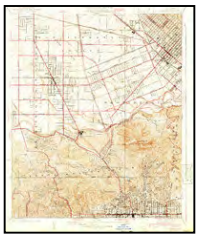
Van Nuys
1953
7.5-minute, 24000
Aerial Photo Revised 1952

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1926 Source Sheets

Van Nuys
1926
7.5-minute, 24000



Burbank
1926
7.5-minute, 24000

Sunland
1926
7.5-minute, 24000

1924 Source Sheets

Van Nuys
1924
7.5-minute, 24000

1921 Source Sheets

Santa Monica
1921
15-minute, 62500
Edited 1920

1902 Source Sheets

Santa Monica
1902
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1900 Source Sheets

Los Angeles
1900
15-minute, 62500

1898 Source Sheets

Santa Monica
1898
15-minute, 62500

1896 Source Sheets

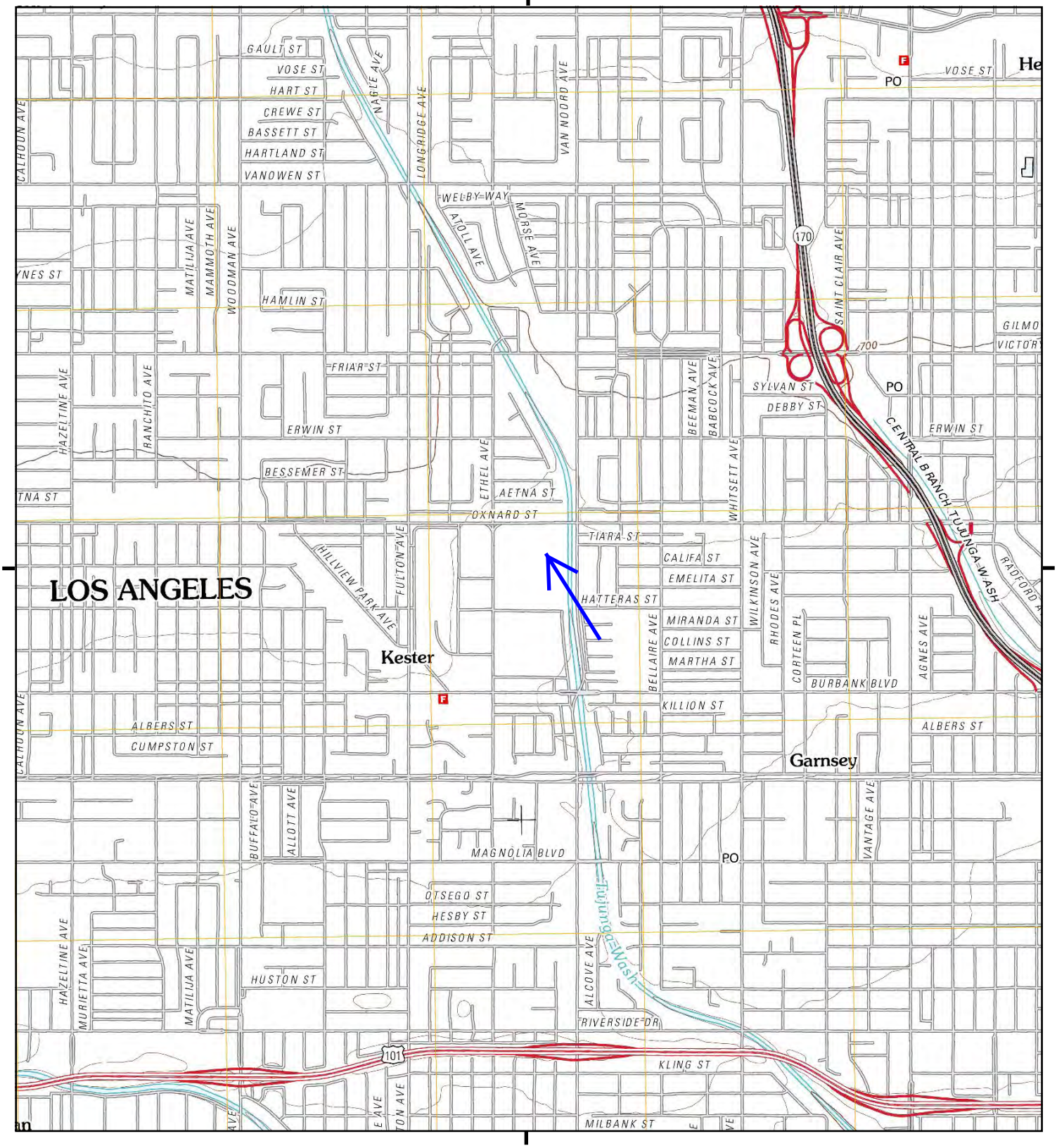
Santa Monica
1896
15-minute, 62500

1894 Source Sheets

Los Angeles
1894
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

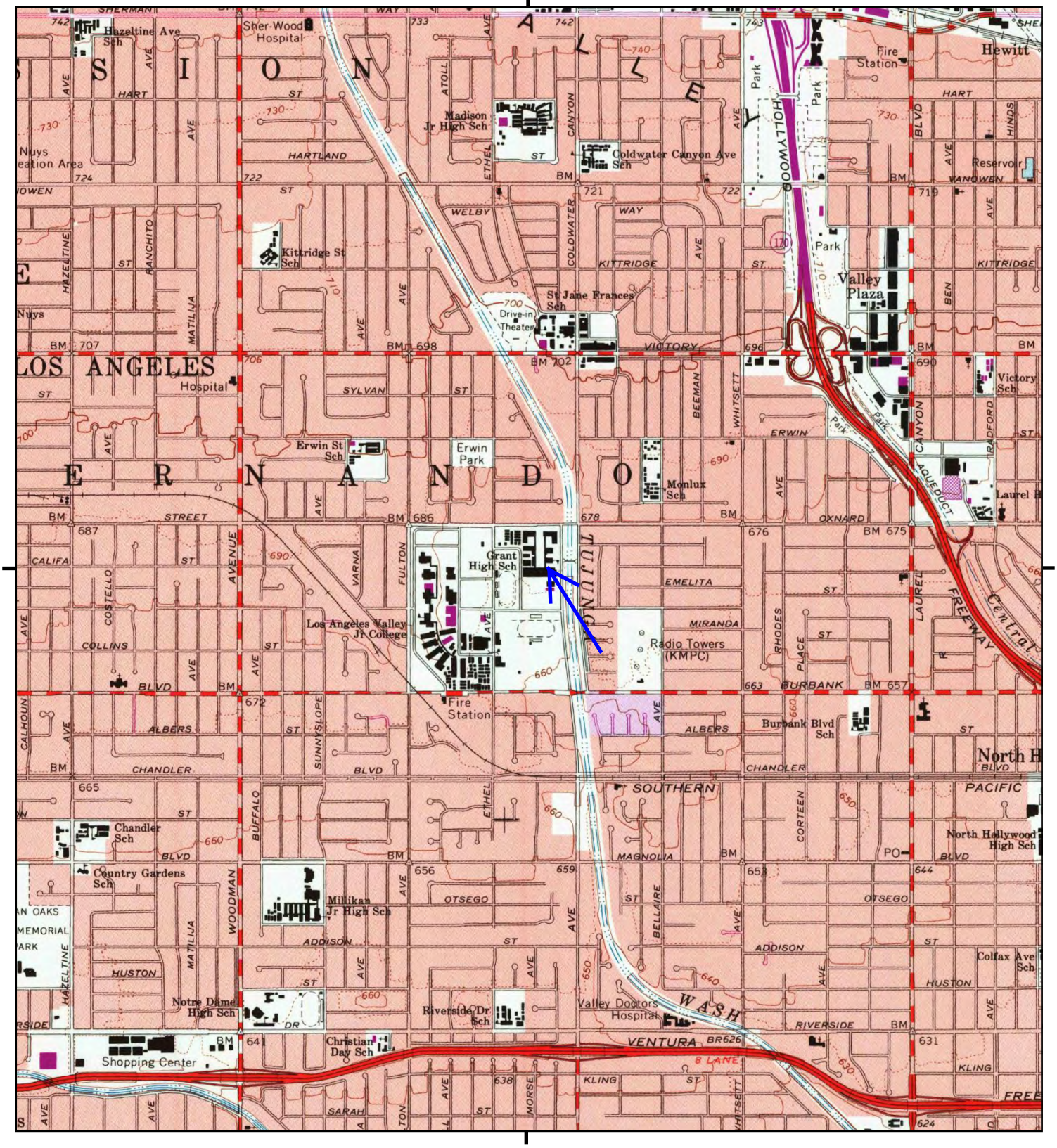
TP, Van Nuys, 2012, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

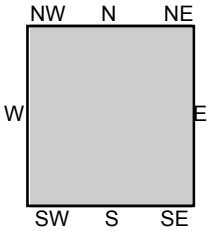
Historical Topo Map

1972



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



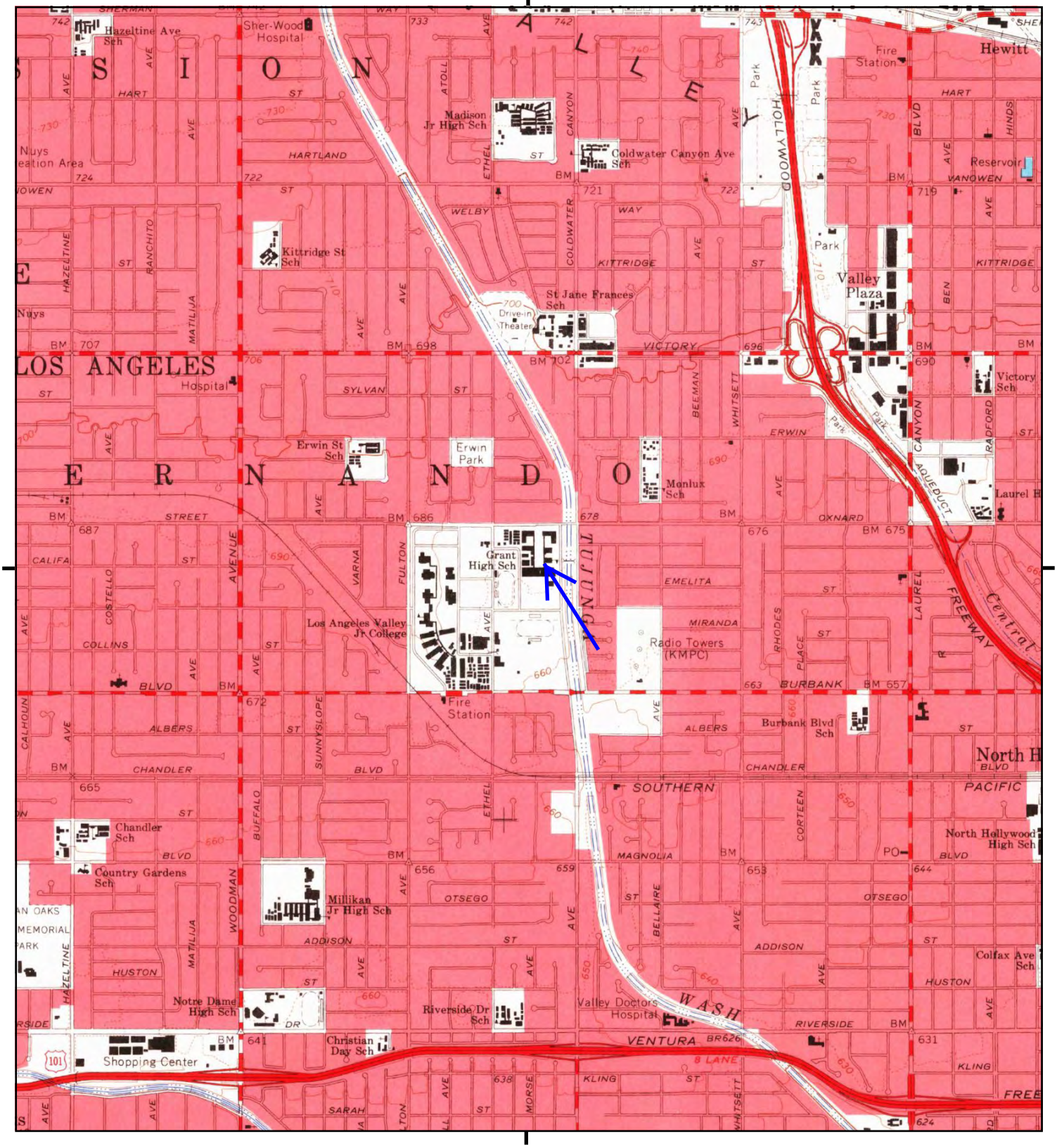
TP, Van Nuys, 1972, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1966



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

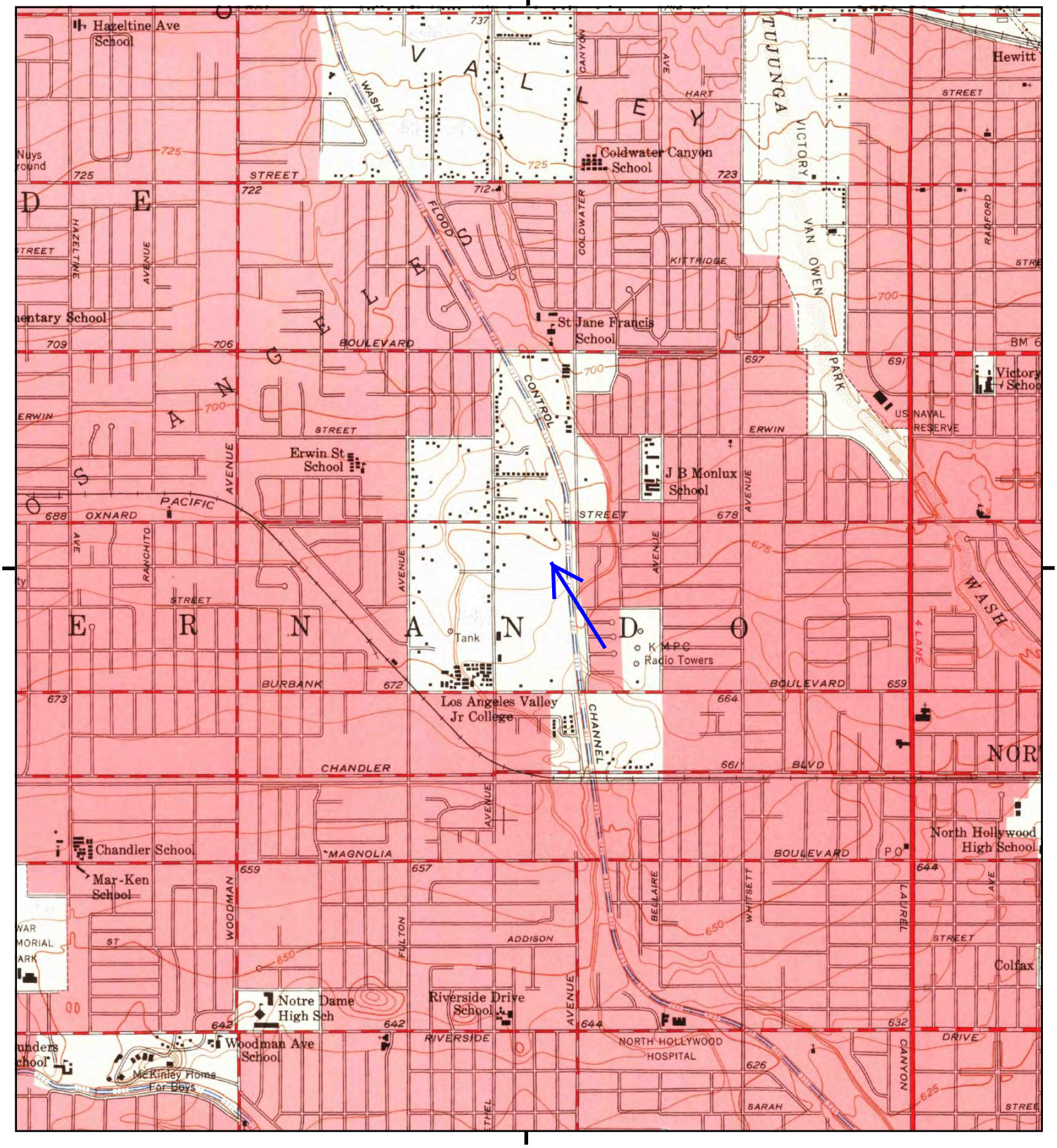
TP, Van Nuys, 1966, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1953



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

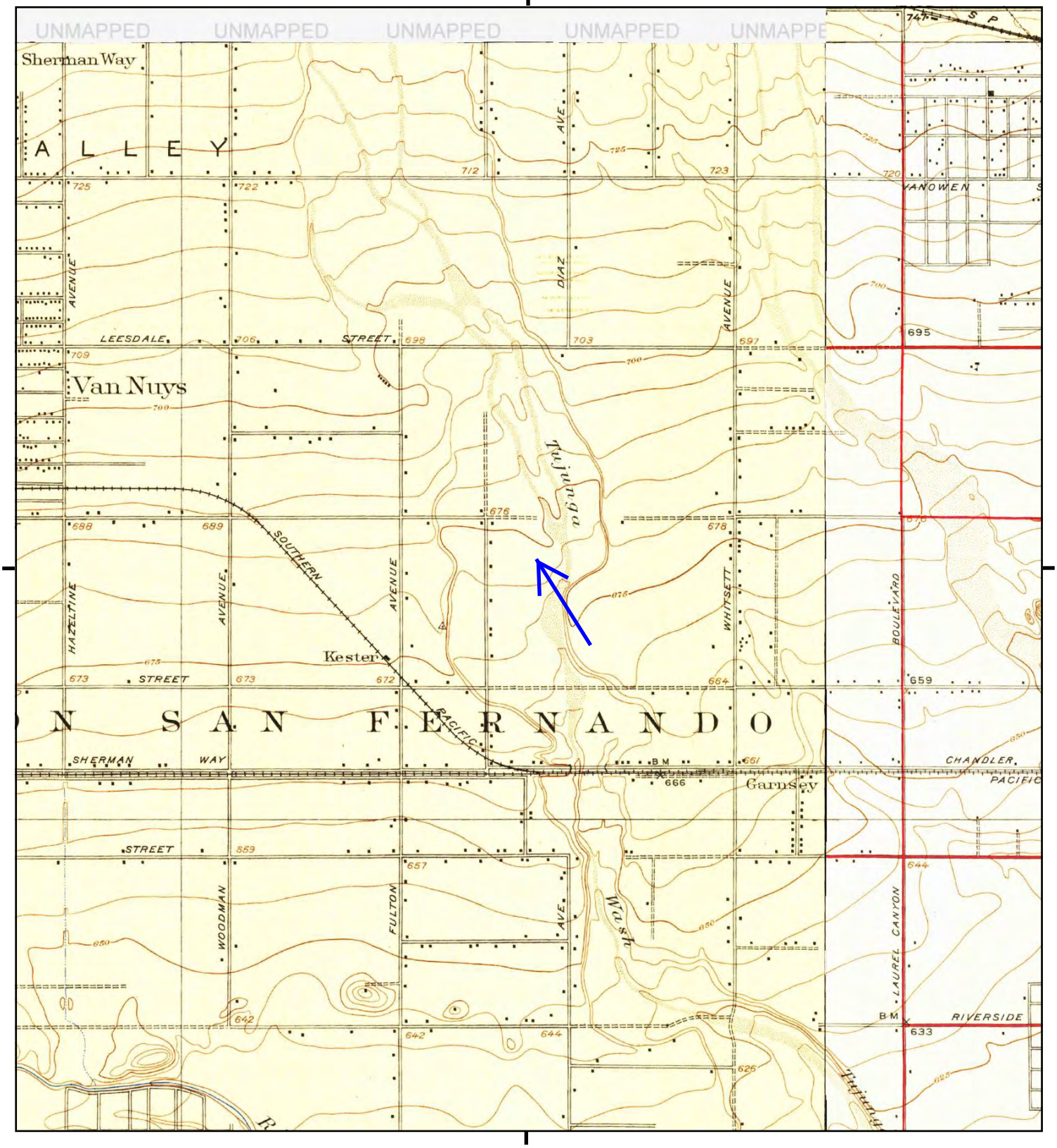
TP, Van Nuys, 1953, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

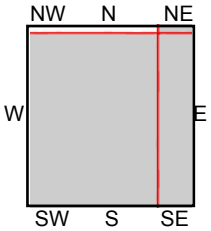
Historical Topo Map

1926



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



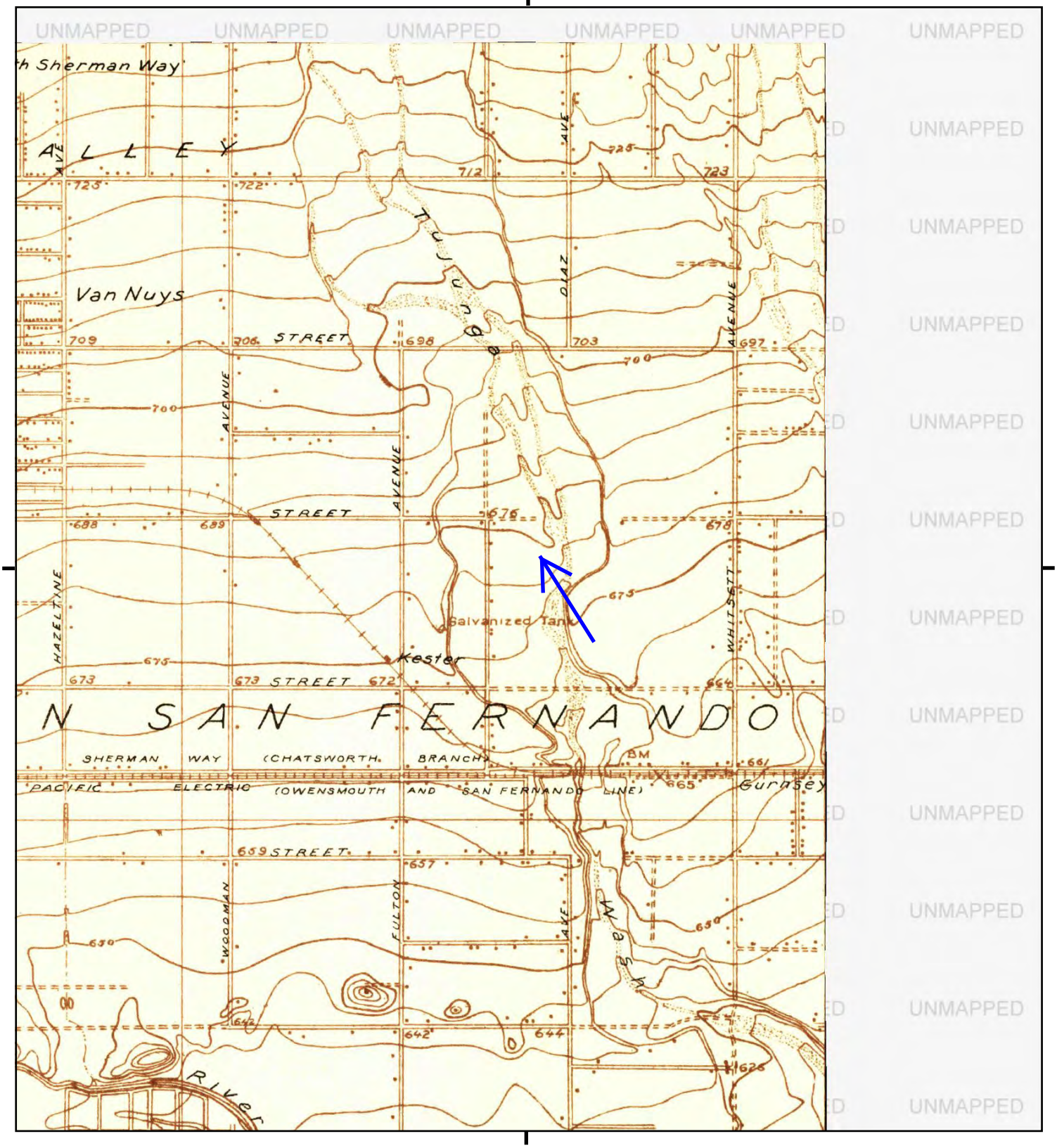
TP, Van Nuys, 1926, 7.5-minute
NE, Sunland, 1926, 7.5-minute
SE, Burbank, 1926, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

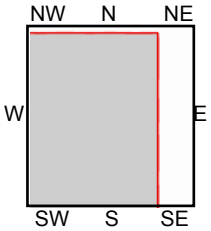
Historical Topo Map

1924



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5



TP, Van Nuys, 1924, 7.5-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1921

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

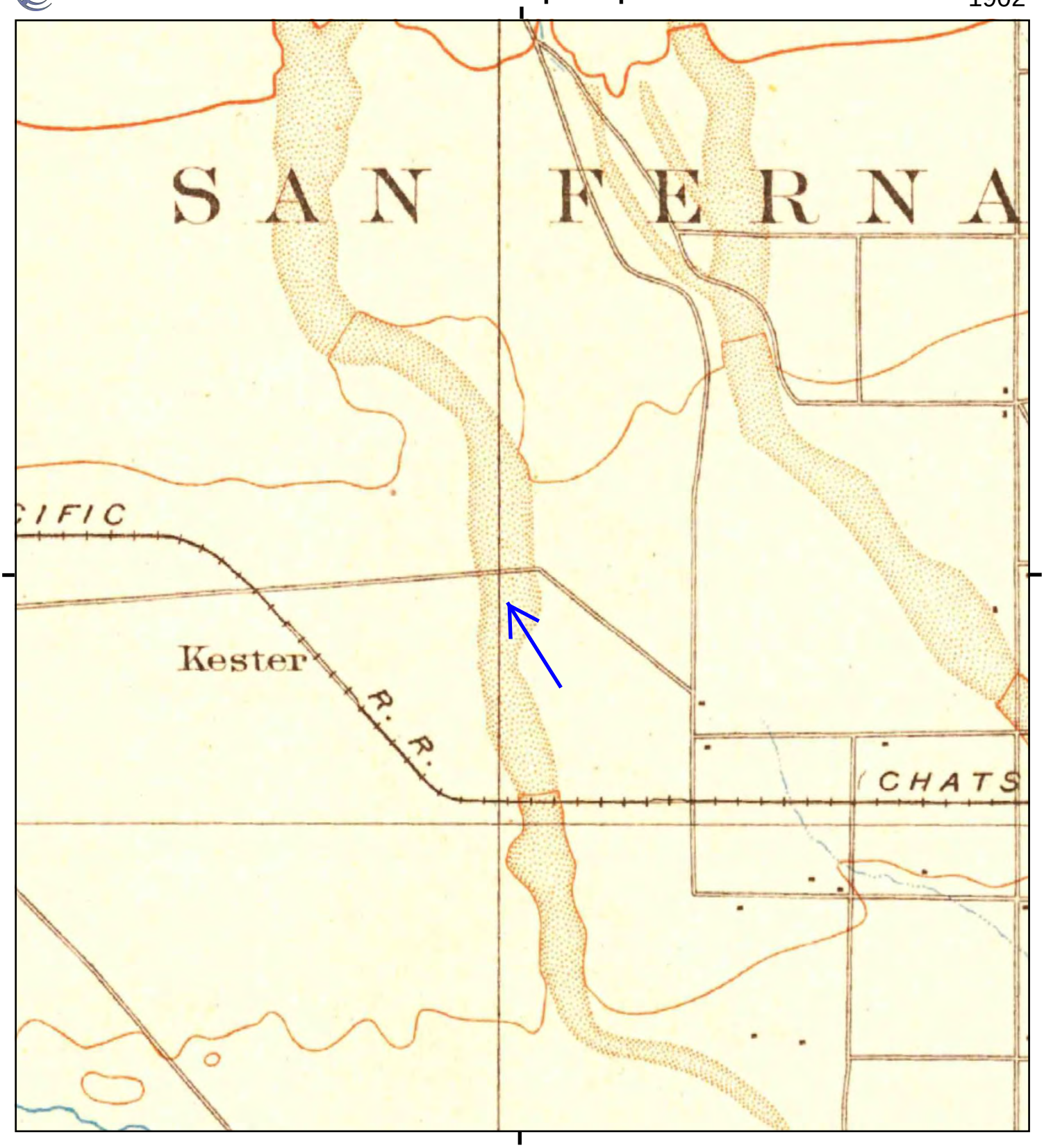
TP, Santa Monica, 1921, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1902



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Santa Monica, 1902, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1900

This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

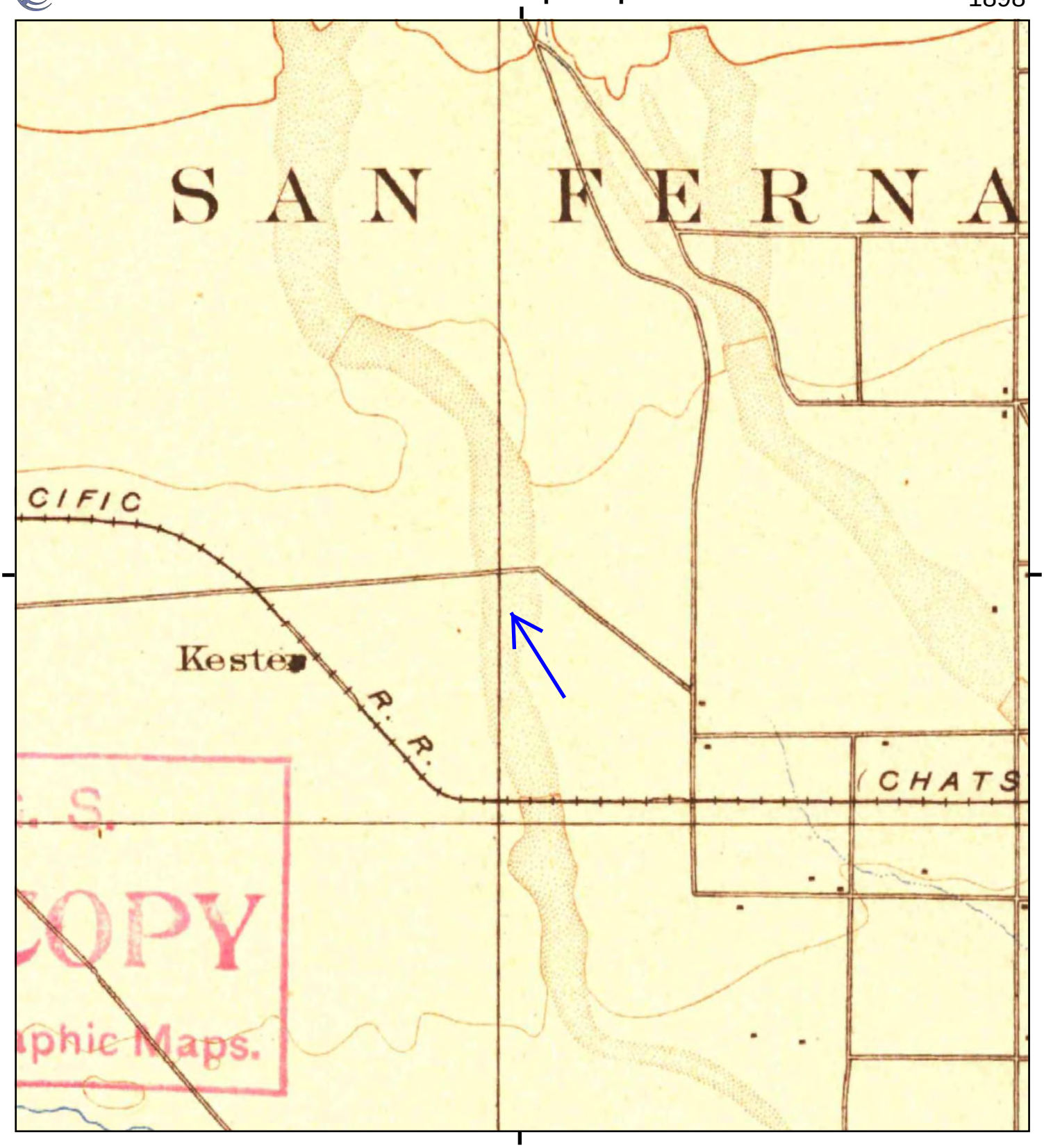
TP, Los Angeles, 1900, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1898



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

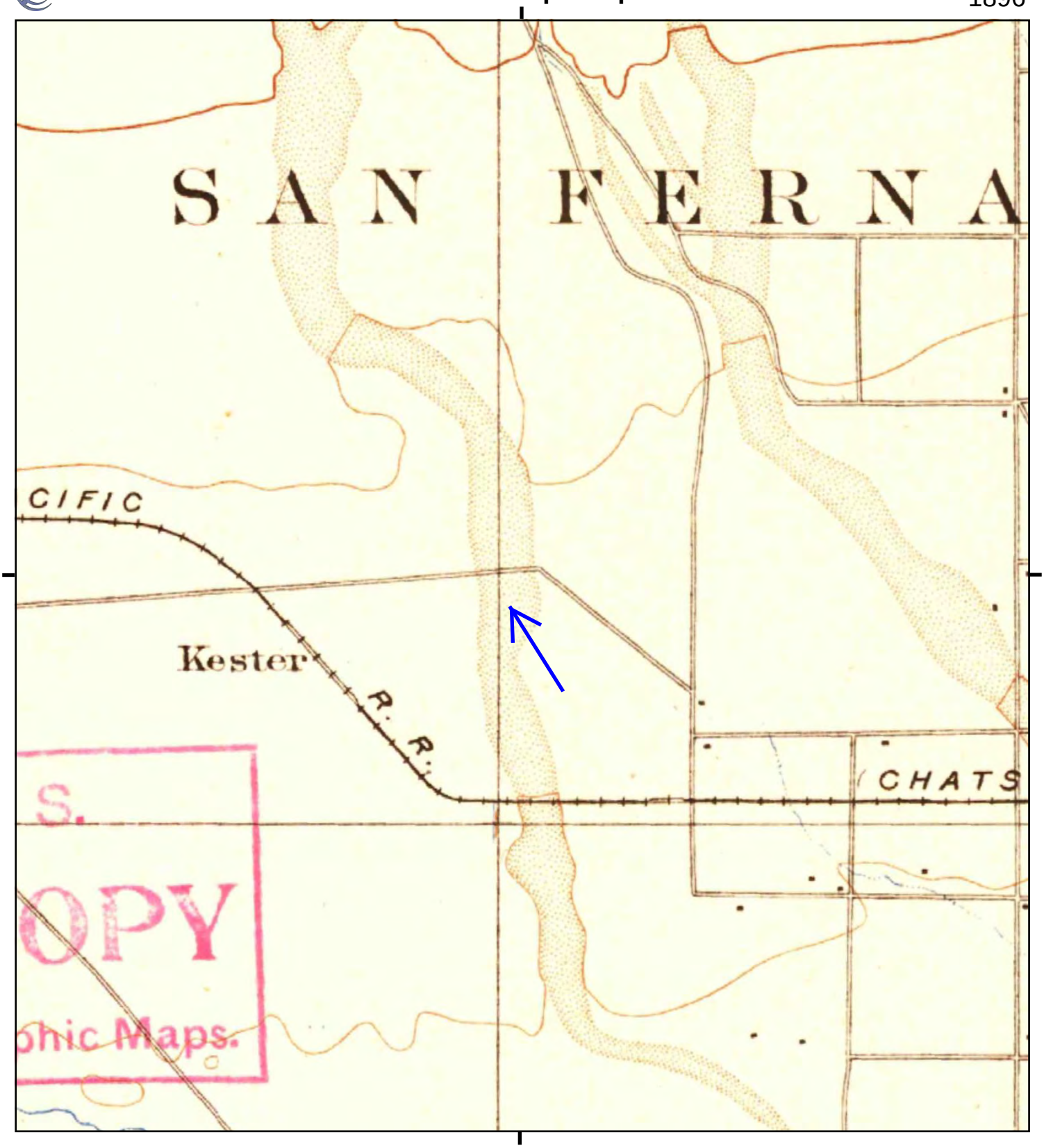
TP, Santa Monica, 1898, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1896



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

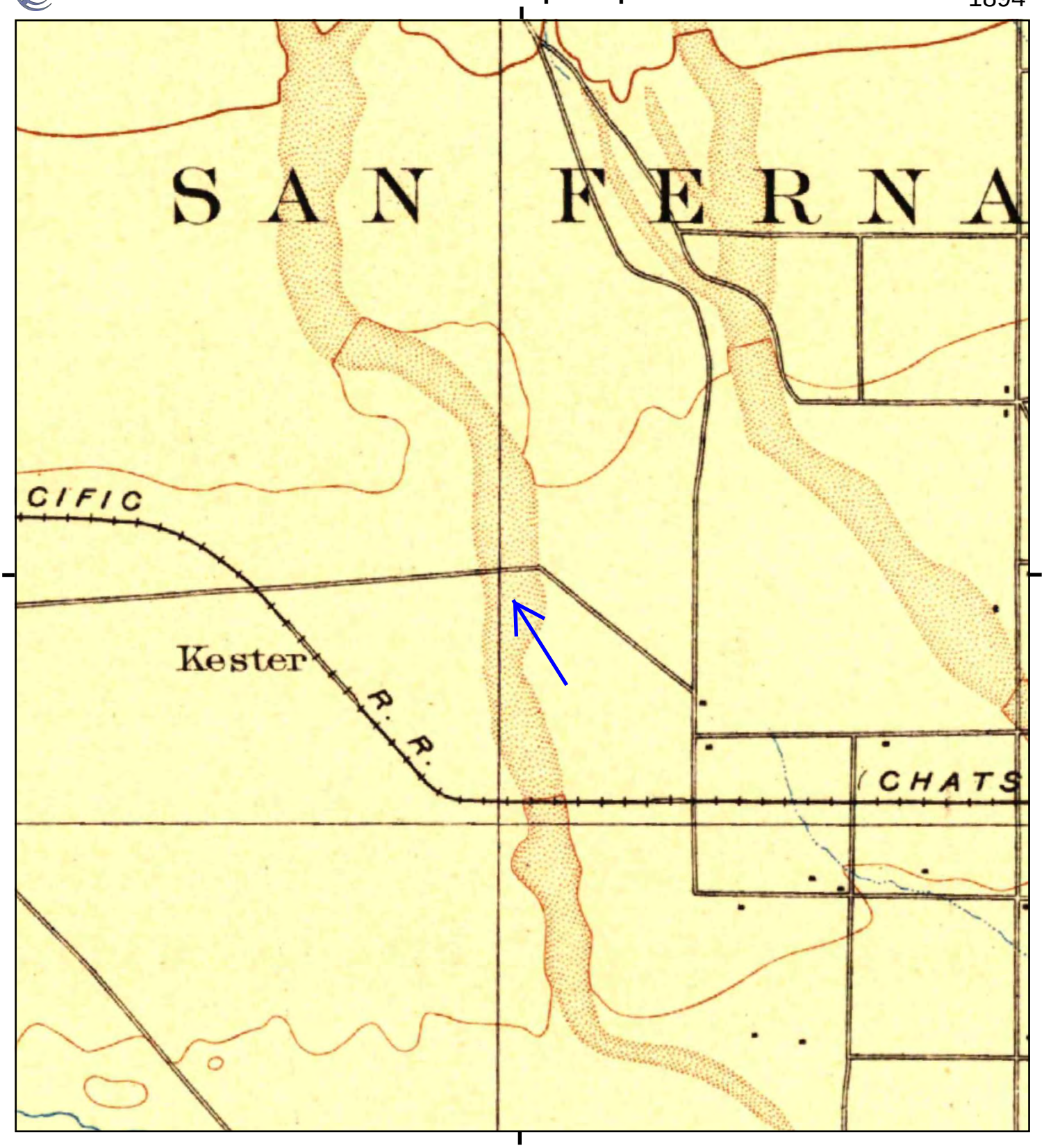
TP, Santa Monica, 1896, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Historical Topo Map

1894



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Los Angeles, 1894, 15-minute

SITE NAME: Grant High School
ADDRESS: 13000 Oxnard Street
Valley Glen, CA 91401
CLIENT: Waterstone Environmental Inc

N

Appendix H

City Directory

Grant High School
13000 Oxnard Street
Valley Glen, CA 91401

Inquiry Number: 4647679.5
June 14, 2016

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	X	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	X	X	X	-
2000	Haines	-	-	-	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	X	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	X	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	X	X	X	-
1981	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	X	X	X	-
1976	Pacific Telephone	-	X	X	-
1975	Pacific Telephone	X	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	X	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
1966	Pacific Telephone	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	X	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	X	X	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1950	Pacific Telephone	X	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	-	-	-
1940	Los Angeles Directory Co.	-	X	X	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	X	X	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

13000 Oxnard Street
Valley Glen, CA 91401

FINDINGS DETAIL

Target Property research detail.

OXNARD ST

13000 OXNARD ST

Year	*Uses*	*Source*
2013	GRANT HIGH SCHOOL	Cole Information Services
2008	LOS ANGELES UNIFIED SCHOOL DISTRICT	Cole Information Services
2006	GRANT HIGH	Haines Company, Inc.
	SCHOOL	Haines Company, Inc.
2001	GRANT HIGH SCHOOL	Haines & Company, Inc.
1995	Grant High School	Pacific Bell
1991	Grant High School	Pacific Bell
1985	Grant High School	Pacific Bell
	Information Line	Pacific Bell
1980	GRANT HIGH SCHOOL	Pacific Telephone
1975	Grant High School	Pacific Telephone
1970	GRANT HIGH SCHOOL	Pacific Telephone
1962	GRANT HIGH SCHOOL	Pacific Telephone
1950	THOMPSON GEO N R	Pacific Telephone

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

AETNA

12920 AETNA

Year	Uses	Source
1986	A & J PACKAGING VAN NUYS	Pacific Bell

12938 AETNA

Year	Uses	Source
1971	Kitnick Earl	Pacific Telephone

13011 AETNA

Year	Uses	Source
1971	Walco Jerald	Pacific Telephone

13027 AETNA

Year	Uses	Source
1986	YI MYONG CHIN VAN NUYS	Pacific Bell
1981	YI MYONG CHIN VAN NUYS	Pacific Telephone

AETNA ST

12920 AETNA ST

Year	Uses	Source
2006	GARC ADav Id	Haines Company, Inc.
2001	GARCIA David	Haines & Company, Inc.
1985	Dozoretz Mark	Pacific Bell
1980	NIELSEN NEIL J	Pacific Telephone
1975	Nielsen Neil J	Pacific Telephone
1970	LANDENBERGER CHESTER	Pacific Telephone
	LANDENBERGER CHESTER	Pacific Telephone
1962	LANDENBERSER CHESTER	Pacific Telephone

12921 AETNA ST

Year	Uses	Source
2006	ALFORDR	Haines Company, Inc.
2001	ALFORD R	Haines & Company, Inc.
	ALFORD R	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1995	Tolopia A	Pacific Bell
1991	Tolopa A	Pacific Bell
1985	Tolopia A	Pacific Bell
1980	TOLOPIA A	Pacific Telephone
1975	Tolopia A	Pacific Telephone
1970	TOLOPLA ADOLFO R	Pacific Telephone
	TOLOPLA ADOLFO R	Pacific Telephone
1962	SOYKA GEO J	Pacific Telephone
	SIMMS LESLIE	Pacific Telephone
1956	GOLD MAX	Pacific Telephone

12926 AETNA ST

Year	Uses	Source
2006	DAVIDSON DIanne	Haines Company, Inc.
2001	DAVIDSON Dianna	Haines & Company, Inc.
1985	Davidson Sidney & Dianna	Pacific Bell
1980	DAVIDSON SIDNEY & DIANNA	Pacific Telephone
1975	Davidson Sidney S	Pacific Telephone
1970	DAVIDSON SIDNEY S	Pacific Telephone
	DAVIDSON SIDNEY S	Pacific Telephone
1962	AMODIO J B	Pacific Telephone

12932 AETNA ST

Year	Uses	Source
2006	RICHARDSON Dale	Haines Company, Inc.
2001	RICHARDSON Dale	Haines & Company, Inc.
1970	SCHAPIRO ARTHUR E DR	Pacific Telephone
	SCHAPIRO ARTHUR E DR	Pacific Telephone
1962	MUMFORD LAROY A	Pacific Telephone

12938 AETNA ST

Year	Uses	Source
2006	e JOHNSTON Scott	Haines Company, Inc.
	WALKER Seth	Haines Company, Inc.
2001	JOHNSTON Scott	Haines & Company, Inc.
1995	Schneeman Doug	Pacific Bell
1991	Bringas AIJ	Pacific Bell
	Bring Harry	Pacific Bell
	Bring Rhonda G	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Villasenor Wm	Pacific Bell
1980	VILLASENOR WM	Pacific Telephone
1975	Villasenor Wm	Pacific Telephone
1970	KITNICK EARL PAINTING CONTR	Pacific Telephone
	KITNICK EARL	Pacific Telephone
	KITNICK EARL	Pacific Telephone
	KITNICK EARL PAINTING CONTR	Pacific Telephone
1962	KITNICK EARL PAINTING CONTR	Pacific Telephone
	KITNICK EARL	Pacific Telephone
1956	KITNICK EARL PAINTING CONTR	Pacific Telephone
	KITNICK EARL	Pacific Telephone

12946 AETNA ST

Year	Uses	Source
1985	Stone Henry Butch	Pacific Bell
1980	STONE HENRY BUTCH	Pacific Telephone
1975	Stone Henry Butch	Pacific Telephone
1970	STONE HENRY BUTCH	Pacific Telephone
	STONE BUTCH	Pacific Telephone
	STONE HENRY BUTCH	Pacific Telephone
	STONE BARRY J	Pacific Telephone
	STONE BUTCH	Pacific Telephone
	STONE BARRY J	Pacific Telephone
1962	STONE HENRY BUTCH	Pacific Telephone
	STONE BARRY J	Pacific Telephone
	STONE BUTCH	Pacific Telephone
1956	STONE HENRY BUTCH	Pacific Telephone
	STONE BUTCH	Pacific Telephone

12952 AETNA ST

Year	Uses	Source
2006	MIELE Rose	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1995	Miele Marianno	Pacific Bell
1991	Miele Marianno	Pacific Bell
1985	Miele Marianno	Pacific Bell
1980	MIELE MARIANNO	Pacific Telephone
1975	Miele Marianno	Pacific Telephone
1970	MIELE MARIANNO	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	MIELE MARIANNO	Pacific Telephone
1962	BERLA MORTY	Pacific Telephone
1956	BURG GERALD W	Pacific Telephone

12953 AETNA ST

Year	Uses	Source
2006	e TOROSSAN Levon	Haines Company, Inc.
2001	TOROSSIAN Levon	Haines & Company, Inc.
1975	Greenberg Earl	Pacific Telephone
1970	GREENBERG EARL	Pacific Telephone
	GREENBERG EARL	Pacific Telephone
1962	GREENBERG EARL	Pacific Telephone
	GREENBERG ERNEST	Pacific Telephone
1956	DERSH IRVING	Pacific Telephone

12958 AETNA ST

Year	Uses	Source
2006	e PAIZArio	Haines Company, Inc.
2001	CASALLAS Jorge	Haines & Company, Inc.
1975	Nay Russell R	Pacific Telephone
1970	STEINMETZ MOLLIE R	Pacific Telephone
	STEINMETZ MOLLIE R	Pacific Telephone
1962	LERNER LEWIS VAN NUYS	Pacific Telephone
1956	ROGERS JEFFREY R	Pacific Telephone

12959 AETNA ST

Year	Uses	Source
2006	o GUMUSHYANYegiya	Haines Company, Inc.
2001	SETTY Aton	Haines & Company, Inc.
	GUMUSHYAN Yegiya	Haines & Company, Inc.
1985	Setty Don	Pacific Bell
1980	SETTY DON	Pacific Telephone
1975	Saittey Weisman	Pacific Telephone
1970	TERRY CLIFFORD	Pacific Telephone
	TERRY CLIFFORD	Pacific Telephone
1962	TERRY CLIFFORD	Pacific Telephone
1956	HOPCRAFT MARIE	Pacific Telephone

FINDINGS

13001 AETNA ST

Year	Uses	Source
1980	INGRAM LEONARD A VAN NUYS	Pacific Telephone
1975	Ingram Leonard A	Pacific Telephone
1970	INGRAM LEONARD A	Pacific Telephone
	INGRAM LEONARD A	Pacific Telephone
1962	INGRAM LEONARD A	Pacific Telephone
1956	INGRAM LEONARD A	Pacific Telephone

13004 AETNA ST

Year	Uses	Source
2006	e ARTi NIAN Haroutyun	Haines Company, Inc.
	ARUTUNYANSeda	Haines Company, Inc.
2001	NASE Myles	Haines & Company, Inc.
1975	Evangelista A E	Pacific Telephone
1970	EVANGELISTS A E	Pacific Telephone
	EVANGELISTS A E	Pacific Telephone
1962	EVANGELISTA A E	Pacific Telephone
1956	EVANGELISTA A E	Pacific Telephone

13007 AETNA ST

Year	Uses	Source
1985	Varner Russell D	Pacific Bell
1980	VARNER RUSSELL D	Pacific Telephone
1975	Varner Russell D	Pacific Telephone
1970	VARNER RUSSELL D	Pacific Telephone
	VARNER RUSSELL D	Pacific Telephone
1962	VARNER RUSSELL D	Pacific Telephone
1956	VARNER RUSSELL D	Pacific Telephone

13010 AETNA ST

Year	Uses	Source
2008	DREAM HOME INC	Cole Information Services
2006	KOBEISSI Cel Ica G	Haines Company, Inc.
	e KOBEISSI Cellca G	Haines Company, Inc.
2001	KOBEISSI Celica G	Haines & Company, Inc.
	KOBEISSI Celica G	Haines & Company, Inc.
1995	Shea Joe	Pacific Bell
1991	Shea Joe	Pacific Bell
1985	Shea Roxanne	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Shea Joe	Pacific Bell
1980	SHEA ROXANNE	Pacific Telephone
	SHEA JOE	Pacific Telephone
1962	YATES ASCHER D	Pacific Telephone

13011 AETNA ST

Year	Uses	Source
2006	SAMOKISHRoman	Haines Company, Inc.
2001	SAMOKISH Roman	Haines & Company, Inc.
1995	Marks S G&JE	Pacific Bell
1991	Marks S G&JE	Pacific Bell
	Marks S W	Pacific Bell
1985	Marks S G & J E	Pacific Bell
	Marks S W	Pacific Bell
	Marks Sadie	Pacific Bell
1980	MARKS S G	Pacific Telephone
	SOLOMON J E	Pacific Telephone
1975	Funk Chas	Pacific Telephone
1962	WALKOWITZ GERALD	Pacific Telephone
1956	WALKOWITZ GERALD	Pacific Telephone

13016 AETNA ST

Year	Uses	Source
2008	SEWARD CONSTRUCTION INC	Cole Information Services
2006	SEWARO Joseph	Haines Company, Inc.
	SEWARDJoseph	Haines Company, Inc.
2001	SEWARD Joseph	Haines & Company, Inc.
	SEWARD Joseph	Haines & Company, Inc.
1995	Seward Jack Studio	Pacific Bell
	Seward Joseph	Pacific Bell
1975	Rappaport Hyman	Pacific Telephone
1970	RAPPAPORT HYMAN	Pacific Telephone
	SHAPIRO RITA	Pacific Telephone
	SHAPIRO RITA	Pacific Telephone
	RAPPAPORT HYMAN	Pacific Telephone

13017 AETNA ST

Year	Uses	Source
2006	LIPTON Howard N	Haines Company, Inc.

FINDINGS

Year	Uses	Source
2001	LIPTON Howard N	Haines & Company, Inc.
1995	Lipton Howard N	Pacific Bell
1991	Lipton Howard N	Pacific Bell
1985	Lipton Howard N	Pacific Bell
1980	LIPTON HOWARD N	Pacific Telephone
1975	Greenberg Maida D	Pacific Telephone
1970	GREENBERG MAIDA D	Pacific Telephone
	GREENBERG MAIDA D	Pacific Telephone
1962	GREENBERG MURRAY	Pacific Telephone
1956	BERLIN JACK	Pacific Telephone

13021 AETNA ST

Year	Uses	Source
2006	Resident	Haines Company, Inc.
2001	NEWMAN Phyllis	Haines & Company, Inc.
	NEWMAN Floyd	Haines & Company, Inc.
1995	I Newman Floyd & Phyllis	Pacific Bell
	Newman F Sylm	Pacific Bell
1991	Newman Floyd & Phyllis	Pacific Bell
1985	Newman Floyd & Phyllis	Pacific Bell
1980	JACOBSOHN HAROLD VAN NUYS	Pacific Telephone
1975	Jacobsohn Harold	Pacific Telephone
1970	JACOBSOHN DOROTHY	Pacific Telephone
	JACOBSOHN HAROLD	Pacific Telephone
	JACOBSOHN HAROLD	Pacific Telephone
	JACOBSOHN DOROTHY	Pacific Telephone
1962	JACOBSOHN PATRICIA	Pacific Telephone
	JACOBSOHN HAROLD	Pacific Telephone
1956	JACOBSOHN HAROLD	Pacific Telephone

13022 AETNA ST

Year	Uses	Source
2006	JIMENEZabneil	Haines Company, Inc.
2001	CRAIG Larry	Haines & Company, Inc.
1985	Craig Richard J	Pacific Bell
1980	CRAIG RICHARD J	Pacific Telephone
1975	Craig Richard J	Pacific Telephone
1970	CHRISTIANSEN WALTER W	Pacific Telephone
	CHRISTIANSEN WALTER W	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	CHRISTIANSEN WALTER W	Pacific Telephone

13027 AETNA ST

Year	Uses	Source
2006	PAPAZYAN Melkon	Haines Company, Inc.
	AVAKJAN Petos	Haines Company, Inc.
	AVAKIAN Adhur	Haines Company, Inc.
2001	PAPAZYAN Ruzanna	Haines & Company, Inc.
	AVAKIAN Petros	Haines & Company, Inc.
1995	Avakian Petros	Pacific Bell
1991	Avakian R	Pacific Bell
	Avakian Rosa Aderan	Pacific Bell
	Avakian Petros	Pacific Bell
1985	Yi Myong Chin	Pacific Bell
1980	JENE S DRYWALL COMPANY RESIDENTIAL & COML	Pacific Telephone
	YI MYONG CHIN VAN NUYS	Pacific Telephone
1975	Kleiman David	Pacific Telephone
1970	KLEIMAN DAVID	Pacific Telephone
	KLEIMAN DAVID	Pacific Telephone
1956	BAIM OSCAR	Pacific Telephone

13028 AETNA ST

Year	Uses	Source
2006	a FORD Henry	Haines Company, Inc.
2001	FORD Henry	Haines & Company, Inc.
1970	LOWENSTEIN RICHARD A VAN NUYS	Pacific Telephone
	LOWENSTEIN RICHARD A VAN NUYS	Pacific Telephone
1962	PANGBURN J P JR	Pacific Telephone

13031 AETNA ST

Year	Uses	Source
2006	SLOAN Angela	Haines Company, Inc.
2001	CERDA Rene	Haines & Company, Inc.
1985	Harmandayan Roupen	Pacific Bell
1980	PORTERFIELD JOS	Pacific Telephone
1975	Porterfield Jos	Pacific Telephone
1970	PORTERFIELD JOS	Pacific Telephone
	PORTERFIELD JOS	Pacific Telephone
1962	NASE MYLES	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	TIKTINSKY MORRIS	Pacific Telephone

13032 AETNA ST

Year	Uses	Source
2006	ADELMAN Leonard	Haines Company, Inc.
2001	ADELMAN Leonard	Haines & Company, Inc.
1995	Adelman Leonard	Pacific Bell
1991	Adelman Mannie & Charlotte	Pacific Bell
	Adelman M	Pacific Bell
	Adelman Leonard	Pacific Bell
1985	Adelman Leonard	Pacific Bell
1980	ADELMAN LEONARD VAN NUYS	Pacific Telephone
1975	Adelman Leonard	Pacific Telephone
1970	ADELMAN LEONARD	Pacific Telephone
	ADELMAN LEONARD	Pacific Telephone
1962	ADELMAN LEONARD	Pacific Telephone

13037 AETNA ST

Year	Uses	Source
2006	o HERBSTNancy	Haines Company, Inc.
2001	SHAQURI Yosef	Haines & Company, Inc.
1995	Moell Ralph H	Pacific Bell
1991	Moell S L	Pacific Bell
	Moell Ralph H	Pacific Bell
1985	Moell Ralph H	Pacific Bell
1980	MOELL RALPH H VAN NUYS	Pacific Telephone
1975	Moell Ralph H	Pacific Telephone
1970	BERNARD ARTHUR L	Pacific Telephone
	BERNARD ARTHUR L	Pacific Telephone
1962	HORVATH JOHN S	Pacific Telephone
1956	HORVATH JOHN S	Pacific Telephone

13038 AETNA ST

Year	Uses	Source
2006	ELKOUBY Esther	Haines Company, Inc.
2001	MALKA David	Haines & Company, Inc.
1985	Davis Dan Development Co	Pacific Bell
1980	DAVIS DAN DEVELOPMENT CO	Pacific Telephone
1975	Davis Dan Development Co	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	DAVIS DANIEL E RL EST	Pacific Telephone
	DAVIS DANL EDW	Pacific Telephone
	DAVIS DANIEL E RL EST	Pacific Telephone
	DAVIS DANL EDW	Pacific Telephone
1962	DAVIS DANL EDW	Pacific Telephone

13042 AETNA ST

Year	Uses	Source
2006	o DOWNS Devon	Haines Company, Inc.
1991	Stem Sami	Pacific Bell
1985	Stern Sami	Pacific Bell
	Stern Sam I	Pacific Bell
	Stern Sanford	Pacific Bell
1980	STERN SAML	Pacific Telephone
	STERN SAML	Pacific Telephone
1975	Stern Saml	Pacific Telephone
1970	ECONOMY BUILDING MAINTENANCE CO	Pacific Telephone
	ECONOMY BUILDING MAINTENANCE CO	Pacific Telephone
	WEINER LOU	Pacific Telephone
	WEINER LOU	Pacific Telephone

13043 AETNA ST

Year	Uses	Source
2006	MCGEEJoanne	Haines Company, Inc.
	LAMB Gaiy	Haines Company, Inc.
2001	MCGEE J	Haines & Company, Inc.
	LAMB Gary	Haines & Company, Inc.
1985	Gold Marvin	Pacific Bell
1980	GOLD MARVIN	Pacific Telephone
1975	Gold Marvin	Pacific Telephone
1970	GOLD MARVIN	Pacific Telephone
	GOLD MARVIN	Pacific Telephone
1962	BLACKBURN DEL	Pacific Telephone

13048 AETNA ST

Year	Uses	Source
2006	a CHRIQUI Sidney	Haines Company, Inc.
2001	CHRIQUI Sidney	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1995	Chriqui Sidney	Pacific Bell
1991	Chriqui Sidney	Pacific Bell
1985	Chriqui Sidney	Pacific Bell
1980	CHRIQUI SIDNEY	Pacific Telephone
1975	Chriqui Sidney	Pacific Telephone
1970	CHRIQUI SIDNEY	Pacific Telephone
	CHRIQUI SIDNEY	Pacific Telephone
1962	LEWBEL STAN	Pacific Telephone

13049 AETNA ST

Year	Uses	Source
2006	CHESMEDJIANAram	Haines Company, Inc.
2001	CHESMEDJIAN Aram	Haines & Company, Inc.
1995	Lee Young Bok	Pacific Bell
1991	Lee Young Bok	Pacific Bell
1985	Lee Young Bok	Pacific Bell
1980	LEE YOUNG BOK	Pacific Telephone
1975	Frankel J M	Pacific Telephone
1970	FRANKEL J M	Pacific Telephone
	FRANKEL J M	Pacific Telephone

CALVERT

12931 CALVERT

Year	Uses	Source
1967	Davis Chas S	Pacific Telephone
1958	Sterling Ell	Pacific Telephone

13030 CALVERT

Year	Uses	Source
1990	SOLOMON NATHAN CANTOR VAN NUYS	Pacific Bell

CALVERT ST

12931 CALVERT ST

Year	Uses	Source
2013	TONYS PAINTING	Cole Information Services
	ALL HAUL & MOVE	Cole Information Services
	TOTAL SERVICE OF AMERICA	Cole Information Services

FINDINGS

Year	Uses	Source
2008	TONYS PAINTING	Cole Information Services
2006	o NAHAS Antolne	Haines Company, Inc.
	TONYS PAINTING	Haines Company, Inc.
2001	TONYS PAINTING	Haines & Company, Inc.
	NAHAS Antoine	Haines & Company, Inc.
1980	LILENFELD HOWARD A VAN NUYS	Pacific Telephone
1970	DAVIS CHAS S MRS	Pacific Telephone
	DAVIS CHAS S MRS	Pacific Telephone
1956	STERLING ELI	Pacific Telephone

12935 CALVERT ST

Year	Uses	Source
2006	Nadne	Haines Company, Inc.
	a DEREMSEZYAN	Haines Company, Inc.
2001	GALPERIN M	Haines & Company, Inc.
1980	GALPERIN MAURICE	Pacific Telephone
1970	GALPERIN AUDERA	Pacific Telephone
	GALPERIN MAURICE	Pacific Telephone
	GALPERIN AUDERA	Pacific Telephone
	GALPERIN MAURICE	Pacific Telephone
1962	VAN BUREN GEO H	Pacific Telephone
1956	VAN BUREN GEO H	Pacific Telephone

12939 CALVERT ST

Year	Uses	Source
2006	a ALEXANDER Lorraine	Haines Company, Inc.
2001	GILIBERTO Lorraine	Haines & Company, Inc.
1970	EISENBERG WM	Pacific Telephone
	EISENBERG WM	Pacific Telephone
1962	RAFFAIL BERNARD S	Pacific Telephone

12945 CALVERT ST

Year	Uses	Source
2006	a MINASYAN Sarkis	Haines Company, Inc.
1962	BUTTERWORTH FLORENCE NADEAN	Pacific Telephone
	BUTTERWORTH WALTER T	Pacific Telephone
1956	BUTTERWORTH WALTER T R	Pacific Telephone
	BUTTERWORTH FLORENCE NADEAN R	Pacific Telephone

FINDINGS

12949 CALVERT ST

Year	Uses	Source
2006	a RANALDOVi Ja	Haines Company, Inc.
2001	RANALDO Vija	Haines & Company, Inc.
1970	SIMOES ALVARO	Pacific Telephone
	SIMOES ALVARO	Pacific Telephone
1962	CLARK VERNICE R	Pacific Telephone
1956	BECK JOHN E	Pacific Telephone

12952 CALVERT ST

Year	Uses	Source
2006	KAPLAN Ruth	Haines Company, Inc.
2001	KAPLAN Ruth A	Haines & Company, Inc.
1980	KAPLAN MARTIN R	Pacific Telephone
1970	KAPLAN MARTIN R	Pacific Telephone
	KAPLAN MARTIN R	Pacific Telephone
1962	KAPLAN MARTIN R	Pacific Telephone
1956	KAPLAN MARTIN R	Pacific Telephone

12955 CALVERT ST

Year	Uses	Source
2006	a LENZ Richard	Haines Company, Inc.
2001	LENZ Linda	Haines & Company, Inc.
	LENZ Richard	Haines & Company, Inc.
1970	HORNIK JOS	Pacific Telephone
	HORNIK JOS	Pacific Telephone
1962	MCKINLEY LIONAL T	Pacific Telephone
1956	SOLOMON WM R	Pacific Telephone
1950	SOLOMON WM R	Pacific Telephone
	SOLOMON WM R	Pacific Telephone

12958 CALVERT ST

Year	Uses	Source
2006	a AYVAZIAN Ardashes	Haines Company, Inc.
2001	AYVAZIAN Ardashes	Haines & Company, Inc.
1980	LYONS STEPHEN	Pacific Telephone
1970	CAMPBELL HOLBERT B	Pacific Telephone
	CAMPBELL HOLBERT B	Pacific Telephone
1962	BRENN ARTHUR	Pacific Telephone
1956	BRENN ARTHUR	Pacific Telephone

FINDINGS

12959 CALVERT ST

Year	Uses	Source
2006	KNARIK LIkhliyan	Haines Company, Inc.
	a LIKHLIYAN Abraam	Haines Company, Inc.
2001	NARGIZYAN Hovsep	Haines & Company, Inc.

13000 CALVERT ST

Year	Uses	Source
2006	a ADLER Michael M	Haines Company, Inc.
2001	ADLER Michael M	Haines & Company, Inc.
1980	ADLER MICHAEL M	Pacific Telephone
	ADLER J	Pacific Telephone
1970	GOODMAN ANNETTE MRS	Pacific Telephone
	GOODMAN ANNETTE MRS	Pacific Telephone
1962	GOODMAN ANNETTE MRS	Pacific Telephone
1956	GREENBERG ARTHUR M	Pacific Telephone

13003 CALVERT ST

Year	Uses	Source
2006	GIMJung	Haines Company, Inc.
2001	GIM Jung	Haines & Company, Inc.
1980	MOLIDOR FRANK VAN NUYS	Pacific Telephone
1970	MOLIDOR FRANK	Pacific Telephone
	MOLIDOR FRANK	Pacific Telephone
1962	MOLIDOR FRANK	Pacific Telephone
1950	BRIGHT R W R	Pacific Telephone
	BRIGHT R W R	Pacific Telephone

13006 CALVERT ST

Year	Uses	Source
2006	a MYRICK Sloan	Haines Company, Inc.
2001	JONES Michael T	Haines & Company, Inc.
	ROBERTS Kevin	Haines & Company, Inc.
1980	KARP MURRAY M	Pacific Telephone
1970	KARP BRUCE F	Pacific Telephone
	KARP MURRAY M	Pacific Telephone
	KARP BRUCE F	Pacific Telephone
	KARP MURRAY M	Pacific Telephone
1962	KREMER SIMON	Pacific Telephone
1956	WINTROUB MURRAY M	Pacific Telephone

FINDINGS

13007 CALVERT ST

Year	Uses	Source
2006	a BABA HIdeyuki	Haines Company, Inc.
2001	BABA Brian	Haines & Company, Inc.
1980	SUKENICK RON	Pacific Telephone
1970	SHAPIRO PAUL	Pacific Telephone
	SHAPIRO PAUL	Pacific Telephone
1962	GRAY MICHAEL A	Pacific Telephone
1956	GREEN ELLISON	Pacific Telephone

13010 CALVERT ST

Year	Uses	Source
2006	FEINBERG Maria	Haines Company, Inc.
2001	FEINBERG Maria	Haines & Company, Inc.
1970	HIRSCH ALBERT A	Pacific Telephone
	HIRSCH ALBERT A	Pacific Telephone
1962	HIRSCH ALBERT A	Pacific Telephone
1956	HIRSCH ALBERT A	Pacific Telephone

13011 CALVERT ST

Year	Uses	Source
2006	HENRIQUEZManuel	Haines Company, Inc.
2001	TOVAR Ricardo	Haines & Company, Inc.
	HENRIQUEZ Manuel	Haines & Company, Inc.
1980	FASONE JOS JOHN JR	Pacific Telephone
	LEDOGAR K	Pacific Telephone
1962	HALSTEAD CLYDE	Pacific Telephone
1956	HUDOCK JOHN J	Pacific Telephone
1950	HAYNER ROBT R	Pacific Telephone
	HAYNER ROBT R	Pacific Telephone

13014 CALVERT ST

Year	Uses	Source
1980	HILDEBRAND PAUL M RESEDA	Pacific Telephone

13016 CALVERT ST

Year	Uses	Source
2006	Hovannes J	Haines Company, Inc.
	MAZLUMYAN	Haines Company, Inc.
2001	SEMERDZHYAN Petros	Haines & Company, Inc.
1980	TAYLOR CHRIS	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	ZELLMAN C	Pacific Telephone
	SILVER S	Pacific Telephone
1962	RITCHIE ANDREW J	Pacific Telephone

13017 CALVERT ST

Year	Uses	Source
2006	DELGADOCarios H	Haines Company, Inc.
	e RUEDAJavier	Haines Company, Inc.
2001	RUEDA Javier	Haines & Company, Inc.
1980	SWIDEN KALLID	Pacific Telephone
	GAPPER K R	Pacific Telephone
	LEE ELLA GYPSY	Pacific Telephone
1962	BRANSBY DAVID	Pacific Telephone
1956	BRANSBY DAVID	Pacific Telephone

13020 CALVERT ST

Year	Uses	Source
2013	MOREJON DAVID HARDWOOD FLOORS	Cole Information Services
2008	DAVID MOREJON HARDWOOD FLOORS	Cole Information Services
2006	MOREJONJose	Haines Company, Inc.
2001	MOREJON Jose	Haines & Company, Inc.
1980	BERMAN D J	Pacific Telephone
1970	BERMAN D J	Pacific Telephone
	BERMAN D J	Pacific Telephone
1962	BERMAN D J	Pacific Telephone
1956	BERMAN D J	Pacific Telephone

13021 CALVERT ST

Year	Uses	Source
2006	GILRodotfo	Haines Company, Inc.
2001	GIL Rodolfo	Haines & Company, Inc.
1980	GIL RODOLFO	Pacific Telephone
1970	CARRILLO TOMMY A	Pacific Telephone
	CARRILLO TOMMY A	Pacific Telephone
1962	BRYAN W F	Pacific Telephone
1956	BRYAN W F	Pacific Telephone

FINDINGS

13026 CALVERT ST

Year	Uses	Source
2013	AIR PLAST	Cole Information Services
2006	MADADSHAHI SIyoun	Haines Company, Inc.
2001	MADADSHAHI Siyoun	Haines & Company, Inc.
1980	STERN GARY M	Pacific Telephone
1970	AMBER JACK	Pacific Telephone
	AMBER JACK	Pacific Telephone
1962	VOLK CARL	Pacific Telephone
1956	WARREN FLOYD A	Pacific Telephone

13030 CALVERT ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1980	SOLOMON NATHAN CANTOR	Pacific Telephone
	SOLOMON NATHAN	Pacific Telephone
1970	SOLOMON NATHAN	Pacific Telephone
	SOLOMON NATHAN	Pacific Telephone
1962	SOLOMON NATHAN	Pacific Telephone
1956	SOLOMON NATHAN J	Pacific Telephone

13031 CALVERT ST

Year	Uses	Source
2006	PAPAZYAN Ruzanna	Haines Company, Inc.
	PAPAZYAN Melkon	Haines Company, Inc.
2001	PAPAZYAN Ruzanna	Haines & Company, Inc.
	PAPAZYAN Melkon	Haines & Company, Inc.
1980	FLEMING RICHARD C	Pacific Telephone
1970	BATAE KATHLEEN	Pacific Telephone
	BATAE KATHLEEN	Pacific Telephone
1962	BOSSIE MATILDA	Pacific Telephone
1956	MONTGOMERY ROBT H R	Pacific Telephone
1950	MONTGOMERY ROBT H R	Pacific Telephone
	MONTGOMERY ROBT H R	Pacific Telephone

13036 CALVERT ST

Year	Uses	Source
2008	MIRROR IMAGE	Cole Information Services
2006	LASHEVER Ruth 00 e	Haines Company, Inc.

FINDINGS

Year	Uses	Source
2001	LASHEVER Sanford	Haines & Company, Inc.
1980	LASHEVER SANFORD	Pacific Telephone
1970	LASHEVER SANFORD	Pacific Telephone
	LASHEVER SANFORD	Pacific Telephone
1962	LASHEVER SANFORD ELECTRCL CONTR	Pacific Telephone
1956	LASHEVER SANFORD ELECTRCL CONTR	Pacific Telephone

13037 CALVERT ST

Year	Uses	Source
2006	HOULE Mark	Haines Company, Inc.
	BURNFORD Frances	Haines Company, Inc.
	DRYWALL	Haines Company, Inc.
	BRADLEY Chrisie	Haines Company, Inc.
	HOULE MARK	Haines Company, Inc.
2001	HOULE Mark	Haines & Company, Inc.
	BURNFORD Frances	Haines & Company, Inc.
1970	SHAUGHNESSY THOS P	Pacific Telephone
	SHAUGHNESSY THOS P	Pacific Telephone
1962	SHAUGHNESSY THOS P	Pacific Telephone
1956	LOLLIS FRANK R	Pacific Telephone

13041 CALVERT ST

Year	Uses	Source
2006	o MESHURIS Michael	Haines Company, Inc.
2001	KENT Paul	Haines & Company, Inc.
1956	RICHARDSON J M	Pacific Telephone

13044 CALVERT ST

Year	Uses	Source
2008	MUSIC AMAZE PRODUCTIONS	Cole Information Services
2006	OHOULECurt I	Haines Company, Inc.
	MARTINEZ Garge	Haines Company, Inc.
2001	HOULE Curtis	Haines & Company, Inc.
	HOULE MARK DRYWALL	Haines & Company, Inc.
	MARTINEZ George	Haines & Company, Inc.
1970	SANCHEZ JAS	Pacific Telephone
	SANCHEZ JAS	Pacific Telephone
1962	FULLERTON RICHARD	Pacific Telephone

FINDINGS

COLDWATER CANYON

6000 COLDWATER CANYON

Year	Uses	Source
1962	Ruben Irving	Pacific Telephone
	Lee Harry	Pacific Telephone

COLDWATER CANYON AVE

6000 COLDWATER CANYON AVE

Year	Uses	Source
2001	WEISS Bernard	Haines & Company, Inc.
	WEINER Saml	Haines & Company, Inc.
	PLUDOW Walter B	Haines & Company, Inc.
	OHMAN Dianne Blake	Haines & Company, Inc.
	KLIEMAN Dora	Haines & Company, Inc.
	KENNEDY James F	Haines & Company, Inc.
	JACOBS Norman	Haines & Company, Inc.
	JACOBS Marlene	Haines & Company, Inc.
	GOODMAN Leopold	Haines & Company, Inc.
	GOODMAN Lee	Haines & Company, Inc.
	APARTMENTS	Haines & Company, Inc.
1995	Ohman Ernest & Dianne Blake	Pacific Bell
	Davidson Inis M	Pacific Bell
1991	Ohman J	Pacific Bell
	Ohman Ernest & Dianne Blake	Pacific Bell
1980	HERZ GERALD & HOPE NORTH HOLLYWOOD	Pacific Telephone
1970	RUSSO HYMIE NORTH HOLLYWOOD	Pacific Telephone
	RUSSO HYMIE NORTH HOLLYWOOD	Pacific Telephone
1967	Ruben Irving	Pacific Telephone
	Davidson Jos L	Pacific Telephone

6020 COLDWATER CANYON AVE

Year	Uses	Source
2001	PENDLETON Walter	Haines & Company, Inc.

6024 COLDWATER CANYON AVE

Year	Uses	Source
2001	NAZARYAN Arutyun	Haines & Company, Inc.
	NAZARYAN Ofelia	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
2001	NAZARYAN Artur	Haines & Company, Inc.

6025 COLDWATER CANYON AVE

Year	Uses	Source
1970	BARRANTI D J	Pacific Telephone
	BARRANTI D J	Pacific Telephone
1962	BARRANTI D J	Pacific Telephone

6027 COLDWATER CANYON AVE

Year	Uses	Source
1970	GOMPERZ BOB	Pacific Telephone
	GOMPERZ BOB	Pacific Telephone
1956	WELLS LA VONNE	Pacific Telephone

6029 COLDWATER CANYON AVE

Year	Uses	Source
1956	DI CATO ALFRED	Pacific Telephone

6030 COLDWATER CANYON AVE

Year	Uses	Source
2001	CANE Conception	Haines & Company, Inc.
	JOSE Benjamin M	Haines & Company, Inc.

6033 COLDWATER CANYON AVE

Year	Uses	Source
1980	GUGLIELMINO TONY	Pacific Telephone
1970	ANDERSON P	Pacific Telephone
	ANDERSON P	Pacific Telephone
1962	MCBRIDE JOHN	Pacific Telephone
1956	GRIGGS WM H MFRS AGT	Pacific Telephone

6034 COLDWATER CANYON AVE

Year	Uses	Source
2001	SERRANO Christine	Haines & Company, Inc.
	CREW David	Haines & Company, Inc.

6037 COLDWATER CANYON AVE

Year	Uses	Source
1980	RIELA THOS	Pacific Telephone
1970	ANDOLINO JOHN J	Pacific Telephone
	ANDOLINO JOHN J	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	JOHANNESEN C W	Pacific Telephone

6040 COLDWATER CANYON AVE

Year	Uses	Source
2001	BERENY Brett	Haines & Company, Inc.

6041 COLDWATER CANYON AVE

Year	Uses	Source
1980	MICHAEL P NORTH HOLLYWOOD	Pacific Telephone
1970	ROBINSON CHAS S	Pacific Telephone
	ROBINSON CHAS S	Pacific Telephone
1962	HAZARD PAULINE	Pacific Telephone
1956	DOUGHTY JAS T	Pacific Telephone

6044 COLDWATER CANYON AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

6045 COLDWATER CANYON AVE

Year	Uses	Source
1956	PEARSON HOWARD E	Pacific Telephone

6051 COLDWATER CANYON AVE

Year	Uses	Source
1995	I Salgado Sandra B	Pacific Bell
	Salgado S PCty	Pacific Bell

6027 1/2 COLDWATER CANYON AVE

Year	Uses	Source
1956	GUINOTTE R D	Pacific Telephone

6061 1/2 COLDWATER CANYON AVE

Year	Uses	Source
1980	BODFISH SUMNER P	Pacific Telephone

COLDWATER CANYON LN

6000 COLDWATER CANYON LN

Year	Uses	Source
1975	Gottlieb Robt	Pacific Telephone
	Goodman Leopold	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Dollar Stanley bridge instrctr	Pacific Telephone
	Dechant John P	Pacific Telephone
	Davidson Jos L	Pacific Telephone
	Cohen Leo	Pacific Telephone
	Cline Carl	Pacific Telephone
	Herz Gerald R	Pacific Telephone
	Balter Ruth	Pacific Telephone
	Weiner Saml	Pacific Telephone
	Shulman Joe	Pacific Telephone
	Russo Hy	Pacific Telephone
	Ruben Irving	Pacific Telephone
	Pollack David	Pacific Telephone
	Pludow Walter B	Pacific Telephone
	Lee Harry	Pacific Telephone
1971	Davidson Jos L	Pacific Telephone

6020 COLDWATER CANYON LN

Year	Uses	Source
1975	Silva G F	Pacific Telephone

6030 COLDWATER CANYON LN

Year	Uses	Source
1975	Mc Clain Vivian	Pacific Telephone

6034 COLDWATER CANYON LN

Year	Uses	Source
1975	Brown M S	Pacific Telephone
1962	BECKER ELAINE	Pacific Telephone

6044 COLDWATER CANYON LN

Year	Uses	Source
1975	Lewis Jas P	Pacific Telephone

ETHEL

6016 ETHEL

Year	Uses	Source
1975	Wolter G C	Pacific Telephone

FINDINGS

6019 ETHEL

Year	Uses	Source
1975	Smith W D Mrs	Pacific Telephone
	Smith Orriel	Pacific Telephone
	Garr Phyllis	Pacific Telephone

6028 ETHEL

Year	Uses	Source
1975	Marsh Richard C	Pacific Telephone

6033 ETHEL

Year	Uses	Source
1975	Cravitz Donald L	Pacific Telephone

6038 ETHEL

Year	Uses	Source
1975	Peterson Berger O	Pacific Telephone

ETHEL AVE

5989 ETHEL AVE

Year	Uses	Source
1940	Barnette K P	Los Angeles Directory Co.

6016 ETHEL AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	VARELA Ida	Haines & Company, Inc.
1991	Sois Rick	Pacific Bell
1985	Walter S C	Pacific Bell
1980	MATSON FREDERICK G R	Pacific Telephone

6019 ETHEL AVE

Year	Uses	Source
2006	a FRUGOLIJon	Haines Company, Inc.
2001	FRUGOLI Jon	Haines & Company, Inc.
1985	Wieberg Marval P	Pacific Bell

6020 ETHEL AVE

Year	Uses	Source
1940	Peterson B 0 Imbr o	Los Angeles Directory Co.
	s 028 Frase L E	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1935	Valley Salvage Co	Los Angeles Directory Co.

6028 ETHEL AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	BEBOUT Deedra	Haines & Company, Inc.
1995	Marsh Richard C	Pacific Bell
1991	Marsh Richard & Deborah	Pacific Bell
	Marsh Richard & Rae	Pacific Bell
	Marsh Richard C	Pacific Bell

6029 ETHEL AVE

Year	Uses	Source
2006	COATESBarry Thos	Haines Company, Inc.
2001	COATES Barry Thos	Haines & Company, Inc.
1995	Coate Richard E	Pacific Bell
	Barry Thos	Pacific Bell
1991	Coates Chad	Pacific Bell
	Coates Barry Thos	Pacific Bell
1985	Slider Dan!	Pacific Bell
	Coates Barry Thos	Pacific Bell
	Coates C J	Pacific Bell

6033 ETHEL AVE

Year	Uses	Source
2006	LARIMERCathy	Haines Company, Inc.
2001	FELDMAN Milton	Haines & Company, Inc.
1985	Cravitz Donald L	Pacific Bell
	Cravitz Donald L	Pacific Bell

6038 ETHEL AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1991	Black S Sepulveda	Pacific Bell
	Black S	Pacific Bell
	Black Roy	Pacific Bell

FINDINGS

OXNARD

12945 OXNARD

Year	Uses	Source
1935	SULLIVAN FRANK A R	Los Angeles Directory Co.
1929	Davidge Ludolf E labty wkr	Los Angeles Directory Co.

12959 OXNARD

Year	Uses	Source
1990	BRAVERMAN GEO & MOLLIE VAN NUYS	Pacific Bell
1971	Braverman Geo J	Pacific Telephone
	Buckles Frank J	Pacific Telephone
1967	Buckles Frank J	Pacific Telephone

13041 OXNARD

Year	Uses	Source
1990	LLOYD J STANLEY VAN NUYS	Pacific Bell
1986	LLOYD J STANLEY VAN NUYS	Pacific Bell
1981	LLOYD J STANLEY VAN NUYS	Pacific Telephone
1971	Lloyd J Stanley	Pacific Telephone
1967	Lloyd J Stanley	Pacific Telephone
1958	Lloyd J Stanley	Pacific Telephone

13101 OXNARD

Year	Uses	Source
1971	Glettner Beatrice Mrs	Pacific Telephone

OXNARD AVE

13041 OXNARD AVE

Year	Uses	Source
1976	Lloyd J Stanley	Pacific Telephone

OXNARD ST

5 OXNARD ST

Year	Uses	Source
2006	KEGEYAN Marag It	Haines Company, Inc.
	OTOYAN Siranush	Haines Company, Inc.
	NADOARYAN Maran	Haines Company, Inc.

FINDINGS

14 OXNARD ST

Year	Uses	Source
2006	MOSHE Eli Benen	Haines Company, Inc.
	YAN Andy	Haines Company, Inc.
	TUBMAN Lester	Haines Company, Inc.

105 OXNARD ST

Year	Uses	Source
2006	GARNER Patrick	Haines Company, Inc.
	RIABKOVA Julia	Haines Company, Inc.
	LEE Marina	Haines Company, Inc.

201 OXNARD ST

Year	Uses	Source
2006	MIRZOLAN Hrant	Haines Company, Inc.
	YEGANOVARena	Haines Company, Inc.

210 OXNARD ST

Year	Uses	Source
2006	SUMBY Grayson	Haines Company, Inc.
	SCHNEIDER Pat	Haines Company, Inc.
	VELEZ M	Haines Company, Inc.

12921 OXNARD ST

Year	Uses	Source
2006	ALANIAGiulianna	Haines Company, Inc.
	KRAUSE Richard R	Haines Company, Inc.
2001	ALON Dov	Haines & Company, Inc.
	AVETISYAN Astgik	Haines & Company, Inc.
	BADALYAN Valya	Haines & Company, Inc.
1995	Balikyan Ludvig	Pacific Bell
	i Msryan Seda	Pacific Bell
	Msryan Oganen	Pacific Bell
	Yeretsyan Karine	Pacific Bell
1991	Balikyan Ludvig	Pacific Bell
	Balin C	Pacific Bell
	Kostal Irwin Jr	Pacific Bell
	Kostal JJ	Pacific Bell
	Msryan Seda	Pacific Bell
1985	Kostal Irwin Jr	Pacific Bell
	Kostal J J	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Lenk Gary M	Pacific Bell
	Ramos Lupe	Pacific Bell
	Ramos M	Pacific Bell
	Ramos M	Pacific Bell
	Ramos MR PCty	Pacific Bell
	Yonkich John	Pacific Bell
	Yonkin M W	Pacific Bell
	Yontef J	Pacific Bell
1980	CURCIO ROBT	Pacific Telephone
	DAVEY CLAUDIA J	Pacific Telephone
	GERSON JEFF	Pacific Telephone
	GOLDSTEIN D S	Pacific Telephone
	PHILLIPS ROSA	Pacific Telephone
1975	Galina Sheldon A	Pacific Telephone
	Huang S N	Pacific Telephone
	Lotterman Jack R	Pacific Telephone
1970	BAETEN BARBARA A	Pacific Telephone
	BURNINGHAM PAUL E	Pacific Telephone
	DAVIS D J	Pacific Telephone
	FEINBERG JEANETTE	Pacific Telephone
	BAETEN BARBARA A	Pacific Telephone
	BURNINGHAM PAUL E	Pacific Telephone
	DAVIS D J	Pacific Telephone
	FEINBERG JEANETTE	Pacific Telephone
	GALINA SHELDEN A	Pacific Telephone
	KOLLMORGEN WM F	Pacific Telephone
	WESTRICK CHAS	Pacific Telephone
	GALINA SHELDEN A	Pacific Telephone
	KOLLMORGEN WM F	Pacific Telephone
	WESTRICK CHAS	Pacific Telephone
1962	COHEN ARNOLD H	Pacific Telephone
	DACH HONORA	Pacific Telephone
	JOHNSON PHYLLIS	Pacific Telephone
	MAZER A	Pacific Telephone
	PODORSKI LEO	Pacific Telephone
	ROTKIN HENRY	Pacific Telephone
	SONNENBERG JACK	Pacific Telephone
	TROXEL RALPH E	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	WHITTLE JOHN J	Pacific Telephone

12924 OXNARD ST

Year	Uses	Source
2008	JACK LONDON H S	Cole Information Services
2006	SCHOOL	Haines Company, Inc.
	LONDON HIGH	Haines Company, Inc.
2001	LONDON HIGH SCHOOL	Haines & Company, Inc.
1995	I London High School	Pacific Bell
	London E	Pacific Bell
1991	London High School	Pacific Bell
1985	London High School	Pacific Bell
1980	LONDON HIGH SCHOOL	Pacific Telephone
1975	London High School	Pacific Telephone

12930 OXNARD ST

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

12931 OXNARD ST

Year	Uses	Source
2006	APARTMENTS CHABANEIXEdic	Haines Company, Inc.
	COCHRAN Maryanne	Haines Company, Inc.
	FIXMANTodd	Haines Company, Inc.
	GILBERT Gregory	Haines Company, Inc.
	LOPEZHeber	Haines Company, Inc.
	PARDIS Karen	Haines Company, Inc.
	SETTLE Thomas R	Haines Company, Inc.
	TERMELKONYAN	Haines Company, Inc.
	SIcak TUTUNJYAN Levon	Haines Company, Inc.
2001	AVALOS Martha	Haines & Company, Inc.
	COOK Donna L	Haines & Company, Inc.
	DENNIS Foster	Haines & Company, Inc.
1995	Cohen Yariv	Pacific Bell
	Kantamneni Hema	Pacific Bell
1991	Burbank Richard	Pacific Bell
	Hulme Michael	Pacific Bell
	Kitijanatorn P	Pacific Bell
	Brent Beverly	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Bialack Harry	Pacific Bell
	Bilkey Arthur F	Pacific Bell
	Bilkiss Harvey & Diane	Pacific Bell
	BILL BE LLS TILE W ORKS	Pacific Bell
	Blafkin Howard	Pacific Bell
	Brent Beverly	Pacific Bell
	Burbank Richard	Pacific Bell
	Golden E	Pacific Bell
	Golden Eagle Airways	Pacific Bell
	Karacas Mary E	Pacific Bell
	Neuberg Wm	Pacific Bell
	Slutsky D	Pacific Bell
	Slutsky D E	Pacific Bell
	Slutsky F	Pacific Bell
1980	BIALACK HARRY	Pacific Telephone
	BILKEY ARTHUR F	Pacific Telephone
	BRENT BEVERLY	Pacific Telephone
	FARACH LILIA	Pacific Telephone
	GOLDEN E	Pacific Telephone
	LEWIS M L	Pacific Telephone
	LOUIS SAM	Pacific Telephone
	MURPHY KEVIN R	Pacific Telephone
	NEUBERG WM	Pacific Telephone
	RAMSAWACK RALPH	Pacific Telephone
	REED G R	Pacific Telephone
	SLUTSKY D VAN NUYS	Pacific Telephone
1975	Ackerman David	Pacific Telephone
	Bialack Harry	Pacific Telephone
	Brent Beverly	Pacific Telephone
	Brewer Gladys C	Pacific Telephone
	Cobo Joe	Pacific Telephone
	Elman Diana	Pacific Telephone
	Kaplan M	Pacific Telephone
	Lewis M	Pacific Telephone
	Longworth Budd Jr	Pacific Telephone
	Louis Sam	Pacific Telephone
	Ratkai Pal	Pacific Telephone
	Silverberg D	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Terrill Sam	Pacific Telephone
	Vleugels J L	Pacific Telephone
	Weinstein Louis A	Pacific Telephone
1970	BARMACH EDWIN	Pacific Telephone
	BENSON JAS O JR	Pacific Telephone
	BRENT BEVERLY	Pacific Telephone
	BRUNER L	Pacific Telephone
	EAMES J A	Pacific Telephone
	ESHELMAN W B JR	Pacific Telephone
	HAMELAU FRANK W	Pacific Telephone
	JASPERING OMAR	Pacific Telephone
	LEWIS EUGENE Q	Pacific Telephone
	PINKHAM AUDREY	Pacific Telephone
	PROHOFSKY IRWIN S	Pacific Telephone
	ROSNER E	Pacific Telephone
	SHENKMAN J	Pacific Telephone
	SHENKMAN SIDNEY	Pacific Telephone
	SILVERBERG D	Pacific Telephone
	TABER MAUREEN	Pacific Telephone
	TERRILL SAM	Pacific Telephone
	VLEUGELS J L	Pacific Telephone
	WEINSTEIN LOUIS A	Pacific Telephone
	BARMACH EDWIN	Pacific Telephone
	BENSON JAS O JR	Pacific Telephone
	BRENT BEVERLY	Pacific Telephone
	BRUNER L	Pacific Telephone
	EAMES J A	Pacific Telephone
	ESHELMAN W B JR	Pacific Telephone
	HAMELAU FRANK W	Pacific Telephone
	JASPERING OMAR	Pacific Telephone
	LEWIS EUGENE Q	Pacific Telephone
	PINKHAM AUDREY	Pacific Telephone
	PROHOFSKY IRWIN S	Pacific Telephone
	ROSNER E	Pacific Telephone
	SHENKMAN J	Pacific Telephone
	SHENKMAN SIDNEY	Pacific Telephone
	SILVERBERG D	Pacific Telephone
	TABER MAUREEN	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	TERRILL SAM	Pacific Telephone
	VLEUGELS J L	Pacific Telephone
	WEINSTEIN LOUIS A	Pacific Telephone
1962	SHENKMAN SIDNEY	Pacific Telephone
	SILVERMAN HENRY	Pacific Telephone
	WEINSTEIN LEW A	Pacific Telephone
	ABRAHAMS V	Pacific Telephone
	BRONSON JACK J	Pacific Telephone
	DEAN LORETTA OXNARD	Pacific Telephone
	DOLLAR STANLEY SAN FERNANDO VALLEY BRIDGE STUDIO	Pacific Telephone
	GRAHAM EVERETT E	Pacific Telephone
	HAIMOWITZ SHERYL	Pacific Telephone
	MOHRMAN EDWIN E	Pacific Telephone
	PISARRA THOS	Pacific Telephone
	SAN FERNANDO VALLEY BRIDGE STUDIO	Pacific Telephone
	SCHREINER ARTHUR	Pacific Telephone

12939 OXNARD ST

Year	Uses	Source
2001	TERMELKONYAN Sicak	Haines & Company, Inc.
	MANUKYAN Onik	Haines & Company, Inc.
1985	Kieran Geoffrey	Pacific Bell
	Vargas Hannelore	Pacific Bell
1980	FERRERO T F	Pacific Telephone
	MALONE M R	Pacific Telephone
	VARGAS HANNELORE	Pacific Telephone
1975	Burdette Jas	Pacific Telephone
1970	GANCI JOS	Pacific Telephone
	ROSEN MANETTE	Pacific Telephone
	SCHWEIGER D	Pacific Telephone
	ZALKIND ETHEL	Pacific Telephone
	ZALKIND ETHEL	Pacific Telephone
	SCHWEIGER D	Pacific Telephone
	ROSEN MANETTE	Pacific Telephone
	GANCI JOS	Pacific Telephone
	BASSIN SALLY	Pacific Telephone
	BASSIN SALLY	Pacific Telephone
1962	SHAFFER LEROY L	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	TOLL MOLLIE	Pacific Telephone
	SILVER HAROLD VAN NUYS	Pacific Telephone
	BASSIN SALLY	Pacific Telephone
	HURLEY ROBT E JR	Pacific Telephone
	MILEWSKI JOAN E	Pacific Telephone
	SHAFFER JACQUELYN	Pacific Telephone

12945 OXNARD ST

Year	Uses	Source
2006	APARTMENTS	Haines Company, Inc.
	BALGEVORGYAN	Haines Company, Inc.
	BALYAN Madram	Haines Company, Inc.
	GEVORG DIlanyan	Haines Company, Inc.
	HAKOBYAN Stephan	Haines Company, Inc.
2001	APARTMENTS	Haines & Company, Inc.
	ARUTYUN Kyurkchyan	Haines & Company, Inc.
	BALGEVORGYAN Seda	Haines & Company, Inc.
	KEGEYAN Maragit	Haines & Company, Inc.
	PARSAMYAN Asatur	Haines & Company, Inc.
	SCHERER William	Haines & Company, Inc.
1995	Madarian Hovhanes	Pacific Bell
	Broutlan Pedro	Pacific Bell
	Gishian Ashkhen	Pacific Bell
1991	Arakel Kevork	Pacific Bell
	Kushner Jacob MDC	Pacific Bell
	Kushner Jerry T	Pacific Bell
	Kushner Larry	Pacific Bell
	Ros Eduardo	Pacific Bell
	Thomas Linda J	Pacific Bell
	Thomas Lindsey	Pacific Bell
	Thomas Lisa	Pacific Bell
	Wanger Sidney	Pacific Bell
	Zemah Orly	Pacific Bell
	Zemaitis Tonyi	Pacific Bell
	Zeman Charles D	Pacific Bell
1985	Arakel Kevork	Pacific Bell
	Kushner Jacob M DC	Pacific Bell
	Ros Eduardo	Pacific Bell
	Thomas linda J	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Thomas Tracey Lynn	Pacific Bell
	Thomas Transfer Company	Pacific Bell
	Wanger Sidney	Pacific Bell
1980	ARAKEL KEVORK	Pacific Telephone
	KOCIAN V	Pacific Telephone
	KUSHNER JACOB M DC	Pacific Telephone
	ROS EDUARDO	Pacific Telephone
	THOMAS LINDA J	Pacific Telephone
	WANGER SIDNEY	Pacific Telephone
	WENZELL R NORMAN	Pacific Telephone
1975	Adler Ben	Pacific Telephone
	Chitwood E L	Pacific Telephone
	Cohen Morris R	Pacific Telephone
	Ros Eduardo	Pacific Telephone
	Wanger Sidney	Pacific Telephone
	Wenzell R Norman	Pacific Telephone
1970	ADLER BEN	Pacific Telephone
	FLIEGE JOHN P	Pacific Telephone
	GOLDMAN CARL	Pacific Telephone
	KARL BERT	Pacific Telephone
	SCHWARTZMAN SIDNEY	Pacific Telephone
	WENZELL R NORMAN	Pacific Telephone
	ADLER BEN	Pacific Telephone
	FLIEGE JOHN P	Pacific Telephone
	GOLDMAN CARL	Pacific Telephone
	KARL BERT	Pacific Telephone
	SCHWARTZMAN SIDNEY	Pacific Telephone
	WENZELL R NORMAN	Pacific Telephone
1956	WHEELUS NELLE Z	Pacific Telephone
1950	WHEELUS GLENN H R	Pacific Telephone
	WHEELUS GLENN H R	Pacific Telephone
1940	Sullivan F A o	Los Angeles Directory Co.

12947 OXNARD ST

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

FINDINGS

12950 OXNARD ST

Year	Uses	Source
1995	Braverman F S	Pacific Bell
	i Braverman Geo & Mollie	Pacific Bell

12957 OXNARD ST

Year	Uses	Source
1956	LIPSCOMB JAS T R	Pacific Telephone
	A & B CONSTRUCTION CO	Pacific Telephone
1950	LIPSCOMB JAS T R	Pacific Telephone
	LIPSCOMB JAS T R	Pacific Telephone

12959 OXNARD ST

Year	Uses	Source
2006	APARTMENTS	Haines Company, Inc.
	AKOPYANAregnaz	Haines Company, Inc.
	AVANESYAN Zhaneta	Haines Company, Inc.
	BAMBALYAN Luslk	Haines Company, Inc.
	BEDJANIAN Melanie	Haines Company, Inc.
	BRUNSUZYAN Madne	Haines Company, Inc.
	DOULATOV Renat D	Haines Company, Inc.
	GASPARYAN Arslne	Haines Company, Inc.
	JUGARYAOJIre	Haines Company, Inc.
	KHACHATRYAB	Haines Company, Inc.
	Mkr 5lch KHACHATRYAN	Haines Company, Inc.
	Robed KHANDROS Zody	Haines Company, Inc.
	KOSTANIAN Vdok	Haines Company, Inc.
	MADZARYAN	Haines Company, Inc.
	Granush MATEVOSSIAN Mada	Haines Company, Inc.
	NADAPETIAN Akop	Haines Company, Inc.
	SAAKIAN Saribek	Haines Company, Inc.
	SHAKARDJYAN	Haines Company, Inc.
	Vardanush SHAKHYAN Vladimir	Haines Company, Inc.
	TER ABRAMIAN	Haines Company, Inc.
	Pirous	Haines Company, Inc.
	TOKADZHYAN Akop	Haines Company, Inc.
	TOKADZHYAN Akop	Haines Company, Inc.
2001	SARKISYAN Marine	Haines & Company, Inc.
	TERABRAMIAN Pirous	Haines & Company, Inc.
	TOKADHYAN Akop	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
2001	TOMBAKIAN Bella	Haines & Company, Inc.
	TOTIKYAN Lazlu	Haines & Company, Inc.
	APARTMENTS	Haines & Company, Inc.
	AMIRKHANYAN Artur	Haines & Company, Inc.
	AVANESYAN Zhaneta	Haines & Company, Inc.
	BEALE Ava	Haines & Company, Inc.
	DOULATOV Renat D	Haines & Company, Inc.
	ESPINOZA Ignacio	Haines & Company, Inc.
	HESSEN Asmaa	Haines & Company, Inc.
	KHACHATRYAB Mkrtich	Haines & Company, Inc.
	KHANDROS Zoriy	Haines & Company, Inc.
	MADARYAN Hripsime S	Haines & Company, Inc.
	MADZARYAN Granush	Haines & Company, Inc.
	MELKONIAN Eliza	Haines & Company, Inc.
	SADARIAN Anna	Haines & Company, Inc.
1995	Amirkhanyan Artur	Pacific Bell
	Asatryran Anaer	Pacific Bell
	Kalina Ronald A	Pacific Bell
	Levy Yopam	Pacific Bell
	Mouradian Melnis	Pacific Bell
	Ptaya Amir	Pacific Bell
	Ryerson B	Pacific Bell
1991	Hart J	Pacific Bell
	Har Blvd I	Pacific Bell
	Kalina Ronald A	Pacific Bell
	Mahon M	Pacific Bell
	Mc Dermott Thos J	Pacific Bell
	Ryerson Bl	Pacific Bell
	Ryeron D	Pacific Bell
	Ryerson D	Pacific Bell
1985	Braverman Geo & Mollie	Pacific Bell
	Braverman H	Pacific Bell
	Dewar John & Sandra	Pacific Bell
	Dowse S E	Pacific Bell
	Faerman S	Pacific Bell
	Faermark W	Pacific Bell
	Goldsmith A D	Pacific Bell
	Goldsmith A M	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Hart J	Pacific Bell
	Kalina Ronald A	Pacific Bell
	j Karp Steven M	Pacific Bell
	Mc Dermott Thos J	Pacific Bell
	Peterson Christopher	Pacific Bell
	Peterson Christy	Pacific Bell
	Tychyshyn Mark	Pacific Bell
	Walsky Wm	Pacific Bell
	Warne Walter	Pacific Bell
	Whitehouse M	Pacific Bell
1980	ALBALA DOROTHY M	Pacific Telephone
	BOW PHILIP H K	Pacific Telephone
	BRAVERMAN GEO J	Pacific Telephone
	BRAVERMAN GEO & MOLLIE	Pacific Telephone
	COLLUM CAROLYN ANNE	Pacific Telephone
	CULLEN JOHN	Pacific Telephone
	DOWSE S E	Pacific Telephone
	FAERMAN S	Pacific Telephone
	FIELD M S	Pacific Telephone
	FRIEDMAN MOREY H & BETTY J	Pacific Telephone
	GOLDSMITH A D	Pacific Telephone
	KALINA RONALD A	Pacific Telephone
	O BRIEN GARY R	Pacific Telephone
	POWERS E & R	Pacific Telephone
	POWERS R & E	Pacific Telephone
	RYERSON B	Pacific Telephone
	WALSKY WM	Pacific Telephone
	WARNE WAITER	Pacific Telephone
	WHITEHOUSE M	Pacific Telephone
1975	Azose Albert	Pacific Telephone
	Bailis M	Pacific Telephone
	Becker Rose	Pacific Telephone
	Braverman Geo J	Pacific Telephone
	Brooks F	Pacific Telephone
	Carroll Leo A	Pacific Telephone
	Davis E L Maj	Pacific Telephone
	Graff Wm	Pacific Telephone
	Heywood S	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Maltin P	Pacific Telephone
	Minolli Sue	Pacific Telephone
	Mullins R Michael	Pacific Telephone
	Ryerson B	Pacific Telephone
	Schleifer Wm A	Pacific Telephone
	Secor Dorothy	Pacific Telephone
	Whisenhunt J	Pacific Telephone
1970	AZOSE ALBERT	Pacific Telephone
	BARTON ROBT	Pacific Telephone
	BECKER ROSE	Pacific Telephone
	BRODSKY BEA	Pacific Telephone
	BUCKLES FRANK J	Pacific Telephone
	CROWN ARTESIA	Pacific Telephone
	CROWN ARTESIA	Pacific Telephone
	DURANT DORIS MRS	Pacific Telephone
	GRAFF WM	Pacific Telephone
	KAHN ESTHER R	Pacific Telephone
	KANEG HOWARD	Pacific Telephone
	KARASICK NORMAN M	Pacific Telephone
	KROLL ELLIOTT R	Pacific Telephone
	LANCE W DANA	Pacific Telephone
	MCDOWELL EDGAR L	Pacific Telephone
	MIRIGIAN S	Pacific Telephone
	OBER MILTON H	Pacific Telephone
	OBER ROBT	Pacific Telephone
	ROSLER FRED	Pacific Telephone
	AZOSE ALBERT	Pacific Telephone
	BARTON ROBT	Pacific Telephone
	BECKER ROSE	Pacific Telephone
	BRODSKY BEA	Pacific Telephone
	BUCKLES FRANK J	Pacific Telephone
	CROWN ARTESIA	Pacific Telephone
	CROWN ARTESIA	Pacific Telephone
	DURANT DORIS MRS	Pacific Telephone
	GRAFF WM	Pacific Telephone
	KAHN ESTHER R	Pacific Telephone
	KANEG HOWARD	Pacific Telephone
	KARASICK NORMAN M	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	KROLL ELLIOTT R	Pacific Telephone
	LANCE W DANA	Pacific Telephone
	MCDOWELL EDGAR L	Pacific Telephone
	MIRIGIAN S	Pacific Telephone
	OBER MILTON H	Pacific Telephone
	OBER ROBT	Pacific Telephone
	ROSLER FRED	Pacific Telephone

12999 OXNARD ST

Year	Uses	Source
1956	LYON HARLEY J	Pacific Telephone
1950	MURRAY PAUL T R	Pacific Telephone
	MURRAY PAUL T R	Pacific Telephone

13005 OXNARD ST

Year	Uses	Source
1950	HAMLIN BOB R	Pacific Telephone
	HAMLIN BOB R	Pacific Telephone
1940	Mickelson Ingald o	Los Angeles Directory Co.
	roar Anderson Chas	Los Angeles Directory Co.

13010 OXNARD ST

Year	Uses	Source
1956	LOS ANGELES CITY BOARD OF EDUCATION ADMINISTRATIVE OFCS	Pacific Telephone
	LOS ANGELES CITY BOARD OF EDUCATION ADMINISTRATIVE OFCS	Pacific Telephone
	VALLEY SCHOOLS EMPLOYMENT CENTER	Pacific Telephone
1935	Martin Oscar C r	Los Angeles Directory Co.

13011 OXNARD ST

Year	Uses	Source
2006	ECKHOFFRoberd	Haines Company, Inc.
2001	ECKHOFF Robert	Haines & Company, Inc.
1995	Kukoro Steve	Pacific Bell
1991	Kuukoro Steve	Pacific Bell
1985	Kukoro Steve	Pacific Bell
1980	KUKORO STEVE	Pacific Telephone
1975	Kukoro Steve	Pacific Telephone
	Morales Esteban C	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	KUKORO STEVE	Pacific Telephone
	KUKORO STEVE	Pacific Telephone
1962	KUKORO STEVE	Pacific Telephone
1956	KUKORO STEVE	Pacific Telephone
1950	JONES WM H R	Pacific Telephone
	JONES WM H R	Pacific Telephone

13013 OXNARD ST

Year	Uses	Source
1956	GRAHAM ROBT M	Pacific Telephone

13017 OXNARD ST

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1980	PENNYWELL GARY	Pacific Telephone

13019 OXNARD ST

Year	Uses	Source
2013	A PLUS PHYSICAL THERAPY	Cole Information Services
2008	AT NURSE CONSULTANTS	Cole Information Services
2006	APARTMENTS ASATRYAN Hasmik	Haines Company, Inc.
	AVETIKVahansaryan	Haines Company, Inc.
	CARUSO John	Haines Company, Inc.
	FLORES Rosa	Haines Company, Inc.
	GUARDADO Cesar	Haines Company, Inc.
	KHATSKILEVICH	Haines Company, Inc.
	Drelt 7y KORKADJI Hennaine	Haines Company, Inc.
	KURDOGLYAN	Haines Company, Inc.
	MURADYAN SIranush	Haines Company, Inc.
	SLOAN Robert	Haines Company, Inc.
	SMITH Sherry	Haines Company, Inc.
	TAGMAZYAN Mad	Haines Company, Inc.
	TANTOUSHIAN Ovik	Haines Company, Inc.
	VARDAPETYAN	Haines Company, Inc.
	Manuk ZHAMKOCHYAN	Haines Company, Inc.
	Madya	Haines Company, Inc.
	KHATSKILEVICH	Haines Company, Inc.
2001	APARTMENTS	Haines & Company, Inc.
	AVAGYAN Gagik	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
2001	KHATSKILEVICH Dmitziy	Haines & Company, Inc.
	MARTINEZ Gladis G	Haines & Company, Inc.
	MEDINA F	Haines & Company, Inc.
	SNIDER Wendy A	Haines & Company, Inc.
	TELL ME COMMUNICATIONS	Haines & Company, Inc.
1995	Ford Connie	Pacific Bell
	f Ford D	Pacific Bell
	Martinez Gladis Guerra	Pacific Bell
	Martinez M V	Pacific Bell
	Shaddock S M	Pacific Bell
	Stein Michael	Pacific Bell
1991	Christ Richard H	Pacific Bell
	Ford D	Pacific Bell
	Ford D J	Pacific Bell
	Ford DM	Pacific Bell
	Grossman Larry	Pacific Bell
	Himeihoch Neal	Pacific Bell
	Himelhoch Neal	Pacific Bell
	Obando Clara	Pacific Bell
	Shaddock S M	Pacific Bell
	Silva Juan	Pacific Bell
1985	Camp Robert & Laura	Pacific Bell
	Camp Rudy	Pacific Bell
	Camp S J	Pacific Bell
	Feldman L	Pacific Bell
	Floch Esther	Pacific Bell
	Flock Andrew	Pacific Bell
	Loyd Tom D	Pacific Bell
	LOYDS JE W E LE RS	Pacific Bell
	Moskowitz Geri	Pacific Bell
	Ortiz R E	Pacific Bell
	Radys AF	Pacific Bell
	Shaddock S M	Pacific Bell
	Stein Michael	Pacific Bell
	Thornblad Craig	Pacific Bell
1980	CAMP ROBERT & LAURA	Pacific Telephone
	CHUNG SILAS	Pacific Telephone
	CONCAILDI PHILIP J	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	ERPENBACH MARK J	Pacific Telephone
	GENARO M E	Pacific Telephone
	GERLOFF N	Pacific Telephone
	JONES DONALD	Pacific Telephone
	MIYASAKI G	Pacific Telephone
	ROBINSON DOLORES	Pacific Telephone
	SNABB A	Pacific Telephone
	SNABB A	Pacific Telephone
	TEAGUE R M	Pacific Telephone
	THORNBLAD CRAIG	Pacific Telephone
	TIME HALK	Pacific Telephone
	ZOLLER CHERYL	Pacific Telephone
1962	GRESICK STANLEY	Pacific Telephone
1956	MERRITT R LEE R	Pacific Telephone
	MOSER GOLDA K R	Pacific Telephone
1950	MERRITT R LEE R	Pacific Telephone
	MOSER GOLDA K R	Pacific Telephone
	MERRITT R LEE R	Pacific Telephone
	MOSER GOLDA K R	Pacific Telephone

13031 OXNARD ST

Year	Uses	Source
2008	NAISE FLORING	Cole Information Services
	S Z APPLIANCE	Cole Information Services
2006	APARTMENTS BETS Serhiy	Haines Company, Inc.
	KESEBLYAN Karaeet	Haines Company, Inc.
	KOUYOUMOSIAN	Haines Company, Inc.
	Veronik LEWIS Reggie	Haines Company, Inc.
	MAKARYANTigran	Haines Company, Inc.
	ZAZHYTSKYYSergiy	Haines Company, Inc.
2001	BETS Serhiy	Haines & Company, Inc.
	MCNALLY Christine	Haines & Company, Inc.
1991	Cohen Moshe	Pacific Bell
	Orlando A	Pacific Bell
1985	Bechor Nissim	Pacific Bell
	Connell Harry G	Pacific Bell
	Connell J	Pacific Bell
	Lewis R R	Pacific Bell
	Lewis Ralph J III	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Sbebkile Lydia	Pacific Bell
	Sebastian A	Pacific Bell
	Wein David	Pacific Bell
1980	ANDERSON LLOYD O	Pacific Telephone
	APOSTOLOS J	Pacific Telephone
	CONNELL HARRY G	Pacific Telephone
	DANIELS A M	Pacific Telephone
	LEWIS R R	Pacific Telephone
	ORLANDO A	Pacific Telephone
	RODRIGUEZ VICENTE	Pacific Telephone
	SEDOR EVELYN	Pacific Telephone
	WEIN DAVID	Pacific Telephone
1975	Anderson Lloyd O	Pacific Telephone
	Apostolos J	Pacific Telephone
	Broadman John	Pacific Telephone
	Connell Harry G	Pacific Telephone
	Daniel Tyrus D	Pacific Telephone
	Daniels A M	Pacific Telephone
	Lewis R R	Pacific Telephone
	Obrecht D J	Pacific Telephone
	Rodriguez Vicente	Pacific Telephone
	Sedor Evelyn	Pacific Telephone
	Wein David	Pacific Telephone
1970	ANDERSON LLOYD O	Pacific Telephone
	BROADMAN JOHN	Pacific Telephone
	CONNELL HARRY G	Pacific Telephone
	DANIEL TYRUS D	Pacific Telephone
	GOODMAN JOHN	Pacific Telephone
	HASSEN BARNIE B	Pacific Telephone
	HYMAN S G	Pacific Telephone
	LISS NAT	Pacific Telephone
	SEDOR EVELYN	Pacific Telephone
	WEIN DAVID	Pacific Telephone
	DANIEL TYRUS D	Pacific Telephone
	GOODMAN JOHN	Pacific Telephone
	HASSEN BARNIE B	Pacific Telephone
	HYMAN S G	Pacific Telephone
	LISS NAT	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	SEDOR EVELYN	Pacific Telephone
	ANDERSON LLOYD O	Pacific Telephone
	BROADMAN JOHN	Pacific Telephone
	CONNELL HARRY G	Pacific Telephone
	WEIN DAVID	Pacific Telephone
1962	CARROLL FRED	Pacific Telephone
1956	KORN JACK C	Pacific Telephone
1950	DE PALMA WALTER R	Pacific Telephone
	DE PALMA WALTER R	Pacific Telephone

13040 OXNARD ST

Year	Uses	Source
1950	STARKS F D R	Pacific Telephone
	STARKS F D R	Pacific Telephone
1940	Harper W R	Los Angeles Directory Co.
	Ma Xvor L W	Los Angeles Directory Co.

13041 OXNARD ST

Year	Uses	Source
2008	ALL CITY CONSTRUCTION & REMODELING	Cole Information Services
2006	GILADY Hardar	Haines Company, Inc.
	YARDENI Amlhay	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1991	Lloyd JStanley	Pacific Bell
1985	Lloyd J Stanley	Pacific Bell
1980	LLOYD J STANLEY	Pacific Telephone
1975	Lloyd J Stanley	Pacific Telephone
1970	LLOYD J STANLEY	Pacific Telephone
	LLOYD J STANLEY	Pacific Telephone
1962	LLOYD J STANLEY	Pacific Telephone
1956	LLOYD J STANLEY	Pacific Telephone
1950	WILKINS DON R	Pacific Telephone
	WILKINS DON R	Pacific Telephone
1940	Wilkins P D Jr o	Los Angeles Directory Co.

13043 OXNARD ST

Year	Uses	Source
1970	BROWN HARRY	Pacific Telephone
	BROWN HARRY	Pacific Telephone

FINDINGS

13047 OXNARD ST

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

13049 OXNARD ST

Year	Uses	Source
2006	APARTMENTS CALABRIN Ca 0os	Haines Company, Inc.
	DANIELAnai	Haines Company, Inc.
	GARCIA Gloda Maria	Haines Company, Inc.
	IZENMAN Sonya	Haines Company, Inc.
	MERIDA Graciela	Haines Company, Inc.
	MINASYAN Tanya	Haines Company, Inc.
2001	WATANABE Teppei	Haines & Company, Inc.
	MOSHE Eli Benen	Haines & Company, Inc.
	KNOCH Elliott	Haines & Company, Inc.
	KEYVAN Bahnam	Haines & Company, Inc.
	IZENMAN Sonya	Haines & Company, Inc.
	HANDRIS Emanuel	Haines & Company, Inc.
	APARTMENTS	Haines & Company, Inc.
1995	Deem Kristen J	Pacific Bell
	Devarapalli Prasad	Pacific Bell
	Giaimo Alain	Pacific Bell
	Marder Igor	Pacific Bell
	I Moon Jae Sun	Pacific Bell
	Mookerjee Sumitro & Munmun	Pacific Bell
1991	Keyvanian Enterprises	Pacific Bell
	Keyvanfar N A	Pacific Bell
	Keyvanfar N	Pacific Bell
	Keyvan Fazlolah Bahman	Pacific Bell
	Butler Dan	Pacific Bell
	Bavandpour E	Pacific Bell
	Baker Ralph	Pacific Bell
1985	Sears Authorized Plumber	Pacific Bell
	Sears Auto Leasing	Pacific Bell
	Butler Dan	Pacific Bell
	Keyvan Fazlolah Bahman	Pacific Bell
	Molnar Bela	Pacific Bell
	Molnar Bruce	Pacific Bell
	Molnar David	Pacific Bell
	Morgan P J	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Sears Arthur G	Pacific Bell
1975	Belsheim A E	Pacific Telephone
1970	BELSHEIM ELWOOD H	Pacific Telephone
	BELSHEIM ELWOOD H	Pacific Telephone
1962	PERRY CHAS E	Pacific Telephone
1956	PERRY CHAS E R	Pacific Telephone
1940	Slye Leonard o	Los Angeles Directory Co.

13059 OXNARD ST

Year	Uses	Source
2008	C OF S LA RUSSIAN MISSION	Cole Information Services
2006	APARTMENTS BREGMAN Polla	Haines Company, Inc.
	CALABRIN Cados	Haines Company, Inc.
	DELEON Oto	Haines Company, Inc.
	JORDAN Fidel	Haines Company, Inc.
	JOVEL Edelmira	Haines Company, Inc.
	MINASYAN Varzdat	Haines Company, Inc.
2001	APARTMENTS	Haines & Company, Inc.
	BREGMAN Polia	Haines & Company, Inc.
	ELYASHKEVICH A	Haines & Company, Inc.
	FARRELL K	Haines & Company, Inc.
	REZNIK Vladislav	Haines & Company, Inc.
	SELTSER Yeva	Haines & Company, Inc.
	WERTH Charles G	Haines & Company, Inc.
1995	Farrell K	Pacific Bell
	Guymon Tim	Pacific Bell
	Monarch Manor Apartments	Pacific Bell
1991	Holl Phil & Deanna	Pacific Bell
	Holl Sandy	Pacific Bell
	Holladay D	Pacific Bell
	Downer John D	Pacific Bell
1985	Borst Ronald V	Pacific Bell
	Borstein Irving J Dr	Pacific Bell
	Teenagers Telephone	Pacific Bell
	Chang Sun I	Pacific Bell
	Chang Sun Ja	Pacific Bell
	Kaufman Andrea R	Pacific Bell
	Kaufman Andrew	Pacific Bell
	Kuiper Kevin	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Tujillo Vincent E	Pacific Bell
	Weinstein Ann	Pacific Bell
	Weinstein Arthur K	Pacific Bell
	Williams Jerry C	Pacific Bell
1980	SYREH TODD VAN NUYS	Pacific Telephone
	ADAMS JANET	Pacific Telephone
	BENNETT LUTHER	Pacific Telephone
	DIETZEL RICHARD L	Pacific Telephone
	KUIPER KEVIN	Pacific Telephone
	LIPSHAW H	Pacific Telephone
	PARHAM ANTHONY	Pacific Telephone
	SHELEHOV U	Pacific Telephone
	SOWARD LOROI	Pacific Telephone
	STOLIAR STEVE	Pacific Telephone
	TUJILLO VINCENT E	Pacific Telephone
	WEINSTEIN ANN	Pacific Telephone
1975	Diamond Victor	Pacific Telephone
	Jacobs Jake	Pacific Telephone
	Kraut Lory	Pacific Telephone
	Shelehov U	Pacific Telephone
	Terena Reta	Pacific Telephone
	Wakeford Laura M	Pacific Telephone
1970	BELSHEIM KEBBY	Pacific Telephone
	BIALAK ADRIENNE	Pacific Telephone
	DANIELS SYDNEY	Pacific Telephone
	GRYTE I L	Pacific Telephone
	ZIPP DARRELL B	Pacific Telephone
	ZIPP DARRELL B	Pacific Telephone
	LEGRAND JOHN D	Pacific Telephone
	MONROE BENTON	Pacific Telephone
	SCHNEIDER MICK	Pacific Telephone
	VILLANI RALPH A	Pacific Telephone
	WARD RANDALL	Pacific Telephone
	YIP SHERMAN	Pacific Telephone
	BELSHEIM KEBBY	Pacific Telephone
	BIALAK ADRIENNE	Pacific Telephone
	DANIELS SYDNEY	Pacific Telephone
	GRYTE I L	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	LEGRAND JOHN D	Pacific Telephone
	MONROE BENTON	Pacific Telephone
	SCHNEIDER MICK	Pacific Telephone
	VILLANI RALPH A	Pacific Telephone
	WARD RANDALL	Pacific Telephone
	YIP SHERMAN	Pacific Telephone
1962	BELSHEIM ELWOOD H	Pacific Telephone
1956	BURNETT CARL E	Pacific Telephone
1950	BURNETT CARL E R	Pacific Telephone
	BURNETT CARL E R	Pacific Telephone

13101 OXNARD ST

Year	Uses	Source
2006	ARANGUENA Rosa H	Haines Company, Inc.
	LEVIYarv	Haines Company, Inc.
2001	LEVI Edward	Haines & Company, Inc.
	MATSUO Nachi	Haines & Company, Inc.
1995	Najera Salvador Rene	Pacific Bell
1991	Bonilla Jose	Pacific Bell
	Lopez Salvador	Pacific Bell
	Lopez Salvador Gutierrez	Pacific Bell
	Syal Kanta	Pacific Bell
	Syal Laliya	Pacific Bell
	Syal Laliya	Pacific Bell
	Syal Manjula	Pacific Bell
	Syal Maniula	Pacific Bell
	Syal Parvin	Pacific Bell
1985	Eck L D	Pacific Bell
	Gonzalez E	Pacific Bell
	Levy Jacques	Pacific Bell
	Syal Kanta	Pacific Bell
	Syal Manjula	Pacific Bell
	Syal Panvin Dr	Pacific Bell
1980	SYAL MANOHAR VAN NUYS	Pacific Telephone
	BUTLER DICK	Pacific Telephone
	BUTLER Z M	Pacific Telephone
	ECK L D	Pacific Telephone
	KAUFMAN D	Pacific Telephone
	KORENSTEIN ISAR	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	LEVY JACQUES	Pacific Telephone
	NICOLAISEN KARI	Pacific Telephone
1975	Allenthorp Danl	Pacific Telephone
	Deffebach Kim	Pacific Telephone
	Kim S T	Pacific Telephone
	Pollinger A David	Pacific Telephone
	Skipper Paul	Pacific Telephone
1970	GLETTNER BEATRICE MRS	Pacific Telephone
	GOLDSTEIN SAM	Pacific Telephone
	HAFER T	Pacific Telephone
	MICHEL ERNEST G MRS	Pacific Telephone
	MICHEL SHELLY	Pacific Telephone
	PIZZO MERRILEE	Pacific Telephone
	PRICE IDELLE	Pacific Telephone
	PRICE LESTER	Pacific Telephone
	WERTMAN RUTH MRS	Pacific Telephone
	WERTMAN RUTH MRS	Pacific Telephone
	ZISLA HOWARD E	Pacific Telephone
	ZISLA HOWARD E	Pacific Telephone
	GLETTNER BEATRICE MRS	Pacific Telephone
	GOLDSTEIN SAM	Pacific Telephone
	HAFER T	Pacific Telephone
	MICHEL ERNEST G MRS	Pacific Telephone
	MICHEL SHELLY	Pacific Telephone
	PIZZO MERRILEE	Pacific Telephone
	ROSSTEUSCHER CHAS	Pacific Telephone
	STERNFELD LEONARD	Pacific Telephone
	STERNFELD LEONARD	Pacific Telephone
	ROSSTEUSCHER CHAS	Pacific Telephone
	PRICE LESTER	Pacific Telephone
	PRICE IDELLE	Pacific Telephone

13105 OXNARD ST

Year	Uses	Source
1956	WILLAUER JOHN B R	Pacific Telephone
1950	WILLAUER JOHN B R	Pacific Telephone
	WILLAUER JOHN B R	Pacific Telephone
1940	Martin J H o	Los Angeles Directory Co.

13011 1/2 OXNARD ST

Year	Uses	Source
1980	MAGNER C	Pacific Telephone
1962	CRANDALL WARREN G	Pacific Telephone

13019 1/2 OXNARD ST

Year	Uses	Source
1962	GOODMAN DAVID A OXNARD	Pacific Telephone

VAN NOORD

6030 VAN NOORD

Year	Uses	Source
1967	Lander Coleman H	Pacific Telephone

VAN NOORD AVE

6030 VAN NOORD AVE

Year	Uses	Source
2006	o LANDERColman	Haines Company, Inc.

6033 VAN NOORD AVE

Year	Uses	Source
2006	BROOKNERSylvia H	Haines Company, Inc.
1995	Brookner David L	Pacific Bell
1991	Brookner David L	Pacific Bell
1985	Brookner David L	Pacific Bell
	Brookner E	Pacific Bell
1980	BROOKNER DAVID L	Pacific Telephone
1970	BEELS ANDRE	Pacific Telephone
	BEELS ANDRE	Pacific Telephone
1962	BEELS ANDRE	Pacific Telephone
1956	STRENG ALWIN H	Pacific Telephone
	APGAR CHAS S	Pacific Telephone

6037 VAN NOORD AVE

Year	Uses	Source
1980	GUDELL EDMUND VAN NUYS	Pacific Telephone
1970	SCHAPIRO BARBARA	Pacific Telephone
	SCHAPIRO BARBARA	Pacific Telephone
1962	SCHAPIRO MELVIN DR	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	LA BEAU RICHARD E	Pacific Telephone

6040 VAN NOORD AVE

Year	Uses	Source
2006	KLEIN Don	Haines Company, Inc.
1995	S JV Enterprises & Associates	Pacific Bell
1991	S K Creative Design	Pacific Bell
	S JV Enterprises & Associates	Pacific Bell
1985	Dennis C	Pacific Bell
	Dennis Bruce J	Pacific Bell
1980	DENNIS BRUCE H	Pacific Telephone
	RAUCHER MARIA	Pacific Telephone
	DENNIS BRIAN K	Pacific Telephone
1970	DAVIS JOHN F	Pacific Telephone
	DAVIS JOHN F	Pacific Telephone
1962	CAMERON GUY	Pacific Telephone
1956	GUTT LOUIS	Pacific Telephone

6043 VAN NOORD AVE

Year	Uses	Source
2006	KAZANCHYANAkop	Haines Company, Inc.
1995	Barr Renee	Pacific Bell
1991	Barr Renee	Pacific Bell
1980	VU ANH NGOC	Pacific Telephone
1970	TRITT ROBT	Pacific Telephone
	TRITT ROBT	Pacific Telephone
1962	TRITT ROBT	Pacific Telephone
	TRITT DOROTHY	Pacific Telephone
1956	LANGINGER NATE	Pacific Telephone

6046 VAN NOORD AVE

Year	Uses	Source
2006	COLLINSVIdc 00 o	Haines Company, Inc.
1980	ODNERT S	Pacific Telephone
1970	MATHENY GILBERT W	Pacific Telephone
	MATHENY GILBERT W	Pacific Telephone
1962	FUSS JULIUS	Pacific Telephone
1956	FUSS JULIUS	Pacific Telephone

FINDINGS

6049 VAN NOORD AVE

Year	Uses	Source
2006	POMERANZ Michael	Haines Company, Inc.
1970	LAUTMAN KENNETH Z	Pacific Telephone
	LAUTMAN KENNETH Z	Pacific Telephone
1956	WEISSBERGER BERT	Pacific Telephone

6052 VAN NOORD AVE

Year	Uses	Source
2006	MELLMAN Dale	Haines Company, Inc.
1970	GREENBERG HYMAN	Pacific Telephone
	GREENBERG HYMAN	Pacific Telephone
1962	HADDAD MARY	Pacific Telephone
	HADDAD ROSE	Pacific Telephone

6055 VAN NOORD AVE

Year	Uses	Source
2006	PFEIFFER Karen	Haines Company, Inc.
1980	SAIZ ANNA	Pacific Telephone
1956	TUSH JOS	Pacific Telephone

6058 VAN NOORD AVE

Year	Uses	Source
2006	KARATSONYI Michael	Haines Company, Inc.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
13000 Oxnard Street	2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
105 OXNARD ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12920 AETNA	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12920 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12921 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12921 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12924 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12924 OXNARD ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
12926 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12930 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12931 CALVERT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12931 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12931 CALVERT ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12931 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12932 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12935 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12938 AETNA	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12938 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12939 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
12939 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12945 CALVERT ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12945 OXNARD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12945 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12946 AETNA ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12947 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12949 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12950 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12952 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12952 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12953 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
12955 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12957 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12958 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12958 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12959 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12959 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12959 OXNARD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12959 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
12999 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13000 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13001 AETNA ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
13003 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13004 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13005 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13006 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13007 AETNA ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13007 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13010 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13010 AETNA ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13010 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13010 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13011 1/2 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
13011 AETNA	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13011 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13011 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13011 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13013 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13014 CALVERT ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13016 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13016 AETNA ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13016 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13017 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13017 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
13017 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13019 1/2 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13019 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13019 OXNARD ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13020 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13020 CALVERT ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13021 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13021 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13022 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13026 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13026 CALVERT ST	2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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13027 AETNA	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13027 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13028 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13030 CALVERT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13030 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13031 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13031 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13031 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13031 OXNARD ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13032 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13036 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
13036 CALVERT ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13037 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13037 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13038 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13040 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13041 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13041 OXNARD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13041 OXNARD AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13041 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13041 OXNARD ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13042 AETNA ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
13043 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13043 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13044 CALVERT ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13044 CALVERT ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13047 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13048 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13049 AETNA ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13049 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13059 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13059 OXNARD ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13101 OXNARD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
13101 OXNARD ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13105 OXNARD ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14 OXNARD ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
201 OXNARD ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
210 OXNARD ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5 OXNARD ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5989 ETHEL AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6000 COLDWATER CANYON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6000 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6000 COLDWATER CANYON LN	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6016 ETHEL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
6016 ETHEL AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6019 ETHEL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6019 ETHEL AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6020 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6020 COLDWATER CANYON LN	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6020 ETHEL AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6024 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6025 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6027 1/2 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6027 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6028 ETHEL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
6028 ETHEL AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6029 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6029 ETHEL AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6030 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6030 COLDWATER CANYON LN	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6030 VAN NOORD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6030 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6033 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6033 ETHEL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6033 ETHEL AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6033 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
6034 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6034 COLDWATER CANYON LN	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6037 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6037 VAN NOORD AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6038 ETHEL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6038 ETHEL AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6040 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6040 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6041 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6043 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6044 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
6044 COLDWATER CANYON LN	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6045 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6046 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6049 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6051 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6052 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6055 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6058 VAN NOORD AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
6061 1/2 COLDWATER CANYON AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

Appendix I

Agency Documentation

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

There are two ways to request a copy of the document image.
1) By fax using the request form. Click on the following link
http://www.ladbs.org/permits/permit_related_forms/Research_Request_form.pdf to download the request form.
2) In person. Bring the following summary to one of the following Record counters.

COUNTER HOURS

MONDAY, TUESDAY, THURSDAY, FRIDAY: 7:30 AM to 4:30 PM
WEDNESDAY: 9:00 AM to 4:30 PM

Metro	Van Nuys
201, N. Figueroa St. 1st Floor, Room 110 Record Counter Los Angeles,CA 90012	6262 Van Nuys Blvd Record Counter Van Nuys,CA 91401

Address: 12924 - 13000 OXNARD

Document Type	Sub Type	Document Date	Document Number	Reel Batch Frame	
BUILDING PERMIT	BLDG-NEW		1957	HIST: P1576 002 2808	
BUILDING PERMIT	BLDG-NEW		1957	HIST: P1576 002 2810	
BUILDING PERMIT	NEW CONSTRUCTION	8/20/1943	1943LA06808	IDIS: P5367 01149 0000 thru P5367 0001 HIST: P	
BUILDING PERMIT	2	12/29/1943	1943 13834	HIST: P1362 001 2583	
BUILDING PERMIT	BLDG-NEW	12/29/1943	1943LA13834	IDIS: P5369 02583 0000 thru P5369 0001 HIST: P1362 001 2583	
BUILDING PERMIT	BLDG-ADDITION	4/11/1945	1945VN51344	IDIS: P5391 02411 0000 thru P5391 0001 HIST: P	
BUILDING PERMIT	BLDG-ADDITION	4/19/1945	1945VN51481	IDIS: P5391 02548 0000 thru P5391 0001 HIST: P	
BUILDING PERMIT	BLDG-NEW	3/11/1947	1947LA10257	IDIS: P5419 01902 0000 thru P5419 0001 HIST: P1396 002 1903	
BUILDING PERMIT	BLDG-NEW	11/7/1947	1947LA27432	IDIS: P5426 00182 0000 thru P5426 0001 HIST: P1400 001 0182	
BUILDING PERMIT	BLDG-NEW	8/12/1948	1948VN12103	HIST: P1418 002 0368	
BUILDING PERMIT	BLDG-ALTER/REPAIR	1/20/1949	1949VN00536	HIST: P1420 001 0538	
BUILDING PERMIT	BLDG-ADDITION	1/21/1949	1949VN00536	IDIS: P5465 00536 0000 thru P5465 0001 HIST: P1420 001 0538	

1

APPLICATION TO ERECT A NEW BUILDING AND FOR A CERTIFICATE OF OCCUPANCY

Form 9-A

CITY OF LOS ANGELES
DEPARTMENT
OF
BUILDING AND SAFETY

BUILDING DIVISION

Lot No. 51 — DISTRICT

Tract 1000

Location of Building 13000 OXNARD
(Street Number and Name)

Between what cross streets COLDWATER & ETIWEA

Approved by City Engineer

Date

USE INK OR INDELIBLE PENCIL

1. Purpose of building STABLE — Families — Rooms
(Flat, Dwelling, Apartment Hotel, Hotel or other purpose)
2. Owner THE PORE FARM — Phone ST 7375
(Print Name)
3. Owner's address SAME — P.O.
4. Certificated Architect — Date — License No. — Phone
5. Licensed Engineer — Date — License No. — Phone
6. Contractor SELF — Date — License No. — Phone
7. Contractor's address —
8. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, electrical wiring and gas fixtures) $ 600.00
9. State how many buildings NOW on lot and give use of each. 9 [redacted]
(Flats, Dwelling, Apartment Hotel, Hotel, or other purpose)
10. Size of new building 23 x 23 No. Stories 1 Height to highest point 13' Size lot 285 x 305
11. Material Exterior Walls SIDING Type of Roofing SHINGLE
12. For Accessory Buildings and similar structures
(a) Footing: Width 8" Depth in Ground 14" Width of Wall
(b) Size of Studs 2 x 4 x 9 Material of Floor NONE
(c) Size of Floor Joists NONE x Size of Rafters 2 x 4 x 6'

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here [signature]
(Owner or authorized agent)

Plans, Specifications and other data must be filed.

By

FOR DEPARTMENT USE ONLY

(1) PLAN CHECKING
Receipt No.
Valuation $
Fee Paid $

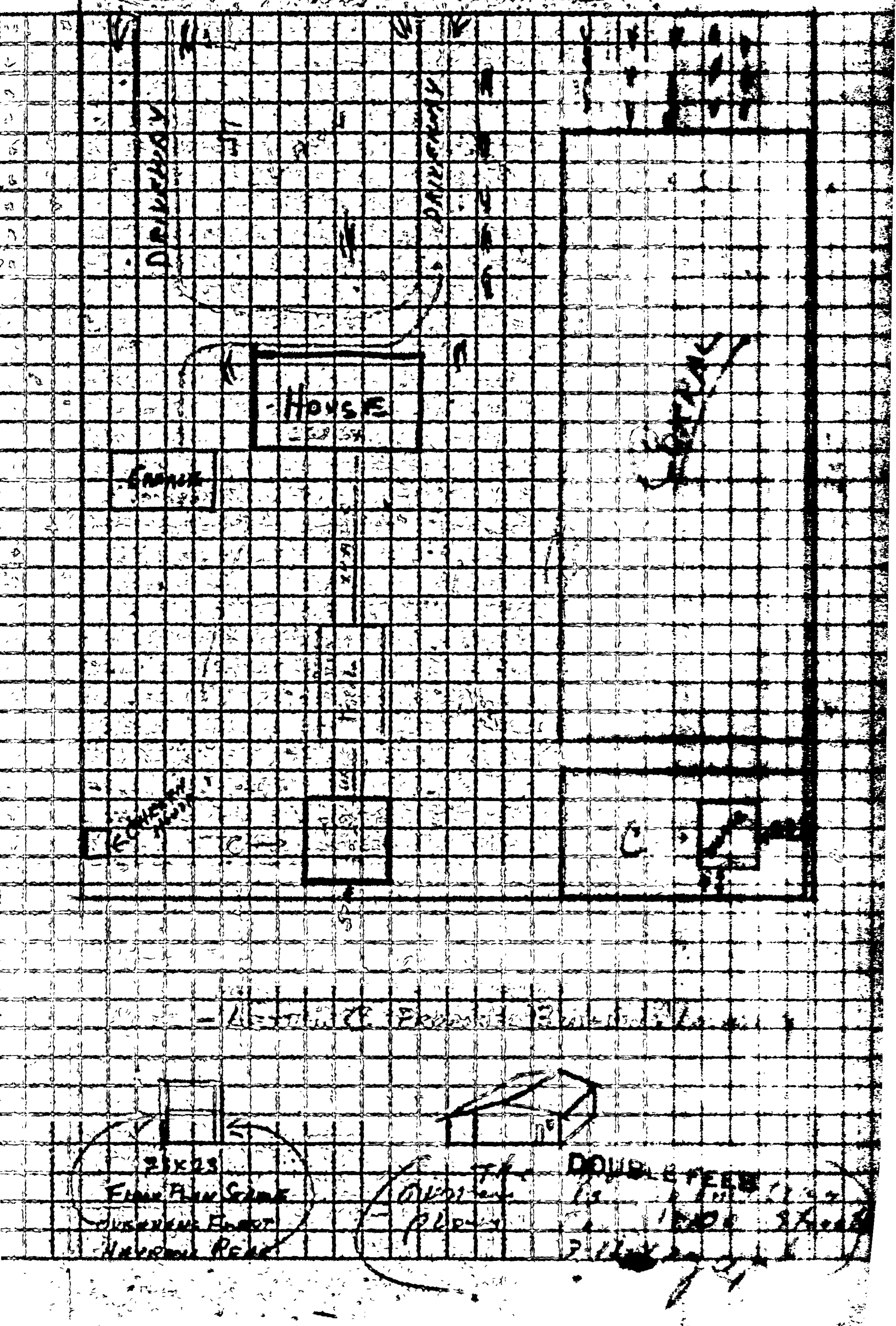
(2) REINFORCED CONCRETE
Bldg. Content
Tests of Reinforcing Steel

FEES
Bldg. Fee 7.00
Cert. of Occupancy 2.00
Total 9.00

TYPE	GROUP					
			Current Lot	Corner Lot Record	285 x 305	Ft. front alley / Ft. side alley
PERMIT No. 1257				B21/B22		7415
						MAR 11 1947
PLANS						

135' FROM R3
170' R1

THE BEE FARM
13000 OXNARD ST UN



Form B-95—20M—5-47

13000 Oxnard ..... Address of Building

The Pore Farm ..... Owner

Same ..... Owner's Address

L.A.

10257 ..... Permit Number ..... 1947 ..... Year

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

CERTIFICATE OF OCCUPANCY

Date Certificate Issued:

....., 19.....

This certifies that, so far as ascertained by or made known to the undersigned, the building at the above address complies with the applicable requirements of the Municipal Code, as follows: Chapter 1, as to permitted uses of said property; Chapter 9, Articles 1, 3, 4, and 5; and with the applicable requirements of the State Housing Act,—for the following occupancies:

Type V Stable R Occupancy

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

G. E. MORRIS
Superintendent of Building

By .....

Bldg. Form 3

3

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

APPLICATION TO ALTER, REPAIR, MOVE OR DEMOLISH A BUILDING OF TYPE _____

REMOVED FROM	REMOVED TO
Lot	Lot
Tract	Tract
Present location of building: 13000 Oxnard St	Van Nuys Calif.
New location of building: 13000 Oxnard St	Van Nuys Calif.
Between what cross streets: Tobias Ave. & Hazel Ave.	

(Number and Street) — Approved by City Engineer — Deputy

USE INK OR INDELIBLE PENCIL

1. Use of existing building: Apartment (Store, Dwelling, Apartment House, Hotel or other purpose) Families 1 Rooms 4
2. State how long building has been used for present occupancy: [illegible]
3. Use of building AFTER alteration or moving: Apartment Families 1 Rooms 5
4. Owner (Print Name): Howard K. Fee Phone [illegible]
5. Owner's Address: 13000 Oxnard St P. O. Van Nuys, Calif.
6. Certificated Architect: State License No. Phone
7. Licensed Engineer: State License No. Phone
8. Contractor: State License No. Phone
9. Contractor's Address
10. VALUATION OF PROPOSED WORK (including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon): $ 1000.00
11. State how many buildings NOW on lot and give use of each: Apartment Dwelling (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building: [illegible] x [illegible] Number of stories high 1 Height to highest point 15
13. Material Exterior Walls: Stucco (Wood, Steel or Masonry) Exterior framework: [illegible] (Wood or Steel)
14. Describe briefly all proposed construction and work:

Install [illegible] [illegible]

Fill in Application on other Side and Sign Statement (Over)

FOR DEPARTMENT USE ONLY

PERMIT No. 51344	Inside Lot / Corner Lot; Key Lot / Corner Lot Keyed; Lot Size; Ft. rear alley / Ft. side alley; Check		Fee
	Plans and Specifications checked	Zone R2	Fire District No. 110
	Corrections verified	Bldg. Line 10 Ft.	Street Widening 10 Ft.
	Plans, Specifications and Application rechecked and approved	Application checked and approved — Clerk	Stamp here when Permit is issued
PLANS Rec'd	For Plans See / Filed with	Continuous Inspection	SPRINKLER Specified Required — Valuation Included Yes— —No
			Inspector

PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

15. Size of Addition 15'6" x 16' Size of Lot 66' x 135' Number of Stories when complete One

16. Type of Roofing Composition

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here _____
(Owner or Authorized Agent)

By _____

FOR DEPARTMENT USE ONLY

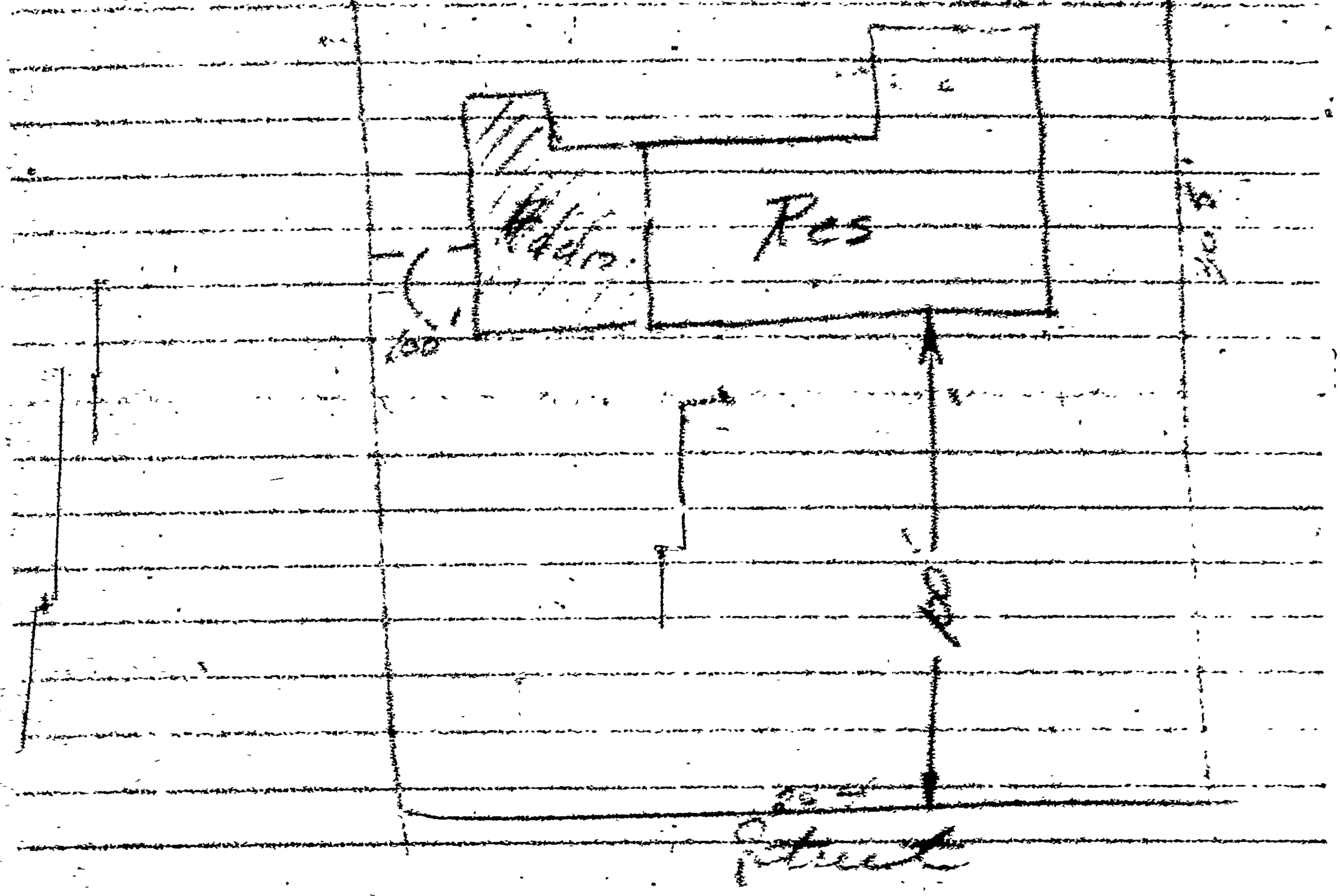
(a) Footing: Width _____ Depth in Ground _____ Width of Wall _____

(b) Size of Studs _____ Material of Floor _____

(c) Size of Floor Joists _____ x _____ Size of Rafters _____ x _____

(1) PLAN CHECKING	(2) REINFORCED CONCRETE	(3)
Receipt No. _____	Barrels of Cement _____	The building referred to in this Application will be more than 100 feet from _____ Street
Valuation $ _____	Tons of Reinforcing Steel _____	Sign here _____ (Owner or Authorized Agent)
Fee Paid $ _____		

REMARKS:



Form 7

2

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application for the Erection of a Building

OF

CLASS "D"

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the officer of the Department of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the exercise of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure herein described, or any portion thereof, upon any street, alley or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure herein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession to the property described in said permit.

Lot No. 451

Tract 1000

Location of Building 12940 Olympic St. (Street Number and Street)

Between what cross streets Cedarwood & Elm

Approved by City Engineer

USE INK OR INDELIBLE PENCIL

1. Purpose of building Barn, Chicken House + Private Storage Rooms Families Rooms (Store, Residence, Apartment House, Hotel, or any other purpose)
2. Owner (Print Name) Howard K. Pore Phone SU 3220
3. Owner's address 4229 Rhodes Ave North Hollywood Calif.
4. Certificated Architect State License No. Phone
5. Licensed Engineer State License No. Phone
6. Contractor State License No. Phone
7. Contractor's address
8. VALUATION OF PROPOSED WORK (including all labor and material and all permanent fixtures, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and or elevator equipment therein or thereon) $ 850.00
9. State how many buildings NOW on lot and give use of each. None (Store, Residence, Apartment House, Hotel, or any other purpose)
10. Size of new building 36' x 20' No. Stories 1 Height to highest point 10 Size lot 264 x 305'
11. Type of soil Sandy Foundation (Material) Concrete Depth in ground
12. Width of footing Width of foundation wall Size of redwood sill x
13. Material exterior wall Size of studs: (Exterior) x (Interior bearing) x
14. Joist: First floor x Second floor x Rafters x Material of roof
15. Chimney (Material) Size Flue x No. inlets each flue Depth footing in ground

I have carefully examined and read the above completed Application and know the same is true and correct, and hereby certify and agree that if a permit is issued all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; I also certify that plans and specifications filed will conform to all the Building Ordinances and State Laws.

Sign here Howard K. Pore (Owner or Authorized Agent)

Plans, Specifications and other data must be filed if required.

By

FOR DEPARTMENT USE ONLY			
PERMIT NO. 6808	Plans and Specifications checked: New Housing	Zone R1	Fire District No. 1 W
	Calculations verified	Bldg. Line N Ft.	Street Widening Ft.
PLANS	Plans, Specifications and Application rechecked and approved	Application checked and approved	Clerk
	For Plans See Sheet	SPRINKLER Required Specified Valuation Included Plumbing	Inspector

Fee 5.50

Stamp here when Permit is issued

2-23-

Rec'd Form 2

2

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

VAN NUYS DISTRICT

Application for the Erection of a Building

OF

CLASS "D"

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions of any fate the exercise of the permit.

First: That the permit does not grant any right or privilege to erect any building or other structure therein described, or any portion thereof, upon any street, alley or other public place or portion thereof.

Second: That the permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any claim of title to, or right of possession in, the property described in such permit.

Lot No. part 51 (264 of W 1036 of N 305)

Tract 1000

Location of Building ~~13000~~ 12940 OXNARD Blvd (House Number and Street)

Between what cross streets Cold Water Canyon & Ethel

Approved by City Engineer [signature] Deputy

USE INK OR INDELIBLE PENCIL

1. Purpose of building Residence (Store, Residence, Apartment House, Hotel, or any other purpose) Families 1 Rooms 4
2. Owner (Print Name) HOWARD K. PORE Phone AD 3191
3. Owner's address 931 W. VERNON
4. Certificated Architect State License No. Phone
5. Licensed Engineer State License No. Phone
6. Contractor Young Const Co. State License No. 62162 Phone AT 6666
7. Contractor's address 533 N. Western Ave.
8. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and or elevator equipment thereon or thereon.) $ 4000 00
9. State how many buildings NOW on lot and give use of each. 1 GARAGE (Store, Residence, Apartment House, Hotel, or any other purpose)
10. Size of new building 19 x 31 No. Stories 1 Height to highest point 14 Size lot 2 x
11. Type of soil Loam Foundation (Material) Concrete Depth in ground 8 x 12
12. Width of footing 14' Width of foundation wall 6 Size of redwood sill 3 x 4
13. Material exterior wall Stucco Size of studs: (Exterior) 2 x 4 (Interior bearing) 2 x 4
14. Joist: First floor 2 x 6 Second floor x Rafters x Material of roof shingle
15. Chimney (Material) T.C. Flue Size Flue 8 x 12 No. inlets each flue 1 Depth footing in ground

I have carefully examined and read the above completed Application and know the same is true and correct, and hereby certify and agree that if a permit is issued all the provisions of the Building Ordinance and State Laws will be complied with whether herein specified or not, I also certify that plans and specifications filed will conform to all the Building Ordinances and State Laws.

Sign here Young Const Co. (Owner or Authorized Agent)

By Chas Olson

Plans, Specifications and other data must be filed if required.

PERMIT NO.	FOR DEPARTMENT USE ONLY 7445			Fee 15 00
13834	Plans and Specifications checked [signature]	Zone 18	Fire District No. 7	Stamp here when Permit is issued
	Corrections verified [signature]	Bldg. Line 7 Ft.	Street Widening 7 Ft.	
PLANS	Plans, Specifications and Application reshecked and approved [signature]	Application checked and approved [signature] Clerk		
Rec'd 7 1943	For Plans See / Filed with	SPRINKLER Required Valuation Included / Specified Yes—No		Inspector

3

APPLICATION TO ALTER, REPAIR, OR DEMOLISH AND FOR A Certificate of Occupancy

Form D-3-[illegible]
CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Lot No. 51

Tract Ideal

Location of Building 12940 Howard St. Van Nuys, Calif. (House Number and Street)

Approved by City Engineer

Between what cross streets Ethel & Whitsett

Deputy.

USE INK OR INDELIBLE PENCIL

1. Present use of building Dwelling (Store, Dwelling, Apartment House, Hotel or other purpose) Families 1 Rooms 6
2. State how long building has been used for present occupancy 5 yrs.
3. Use of building AFTER alteration or moving Same Families 1 Rooms 7
4. Owner Howard K. Pope (Print Name) Phone ST 58407
5. Owner's Address 12940 Howard St. P.O. Van Nuys, Calif.
6. Certificated Architect None State License No. — Phone —
7. Licensed Engineer None State License No. — Phone —
8. Contractor Owner State License No. — Phone —
9. Contractor's Address 95 above
10. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment thereto or thereon.) $ 130.00
11. State how many buildings NOW on lot and give use of each. House-Garage-Barbecue-Stable (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 64 x 30 Number of stories high 1 Height to highest point
13. Material Exterior Walls Stucco (Wood, Steel or Masonry) Exterior framework Wood (Wood or Steel)
14. Describe briefly all proposed construction and work: Patching stucco front porch & pk. walk. increase to 36 in. & 48 in.

NEW CONSTRUCTION

15. Size of Addition 25' x ~~[illegible]~~ Size of Lot 764 x 305 Number of Stories when complete 1
16. Footing: Width 12" Depth in Ground 12" Width of Wall 6" Size of Floor Joists Concrete
17. Size of Studs 2 x 4 Material of Floor Cement Size of Rafters 4 x 6 Type of Roofing Tar & Gravel

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here Howard K. Pope (Owner or Authorized Agent)

DISTRICT OFFICE VAN NUYS DISTRICT By

FOR DEPARTMENT USE ONLY

PLAN CHECKING			REINFORCED CONCRETE	FEES	
Date			Bbls. Cement	Bldg. Per.	2.50
Receipt No.			Tons of Reinforcing Steel	Cert. of Occupancy	
Valuation $	No			Total	2.50
Fee Paid $					

TYPE	GROUP	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Keyed	Lot Size 764 x 305	Ft. rear alley / Ft. side alley	Class
V	R						
PERMIT No. VN 9636		Plans and Specifications checked		Zone R3	Fire District No.	District Map No. 715	
		Inspection Verified		Bldg. Line Ft.	Street Widening Ft.		
PLANS Rec'd. No		Plans, Specifications and Application checked and approved Campbell		Application checked and approved Campbell		Stamp here when Permit is issued	
		Set Plans Set	Fund with	Continuous Inspection No	SPRINKLER Sprinkler Required / Valuation Exceeds $2,000	Inspector	

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

Address of Building: 12940 Oxnard St.

Permit No. and Year: 27432 1947

Certificate Issued: Feb. 28, 1949

This certifies that, so far as ascertained by or made known to the undersigned, the building at above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses; Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act,—for following occupancies:

1 Story, Type V, Barbecue & Play Room, R Occupancy

Owner: The Pore Farm

Owner's Address: 12940 Oxnard St.
No. Hollywood, Calif.

Form B-95a—20M—12-48 G. E. MORRIS, Superintendent of Building By A. Gates

Address of Building 12940 Oxnard St.

Permit No. and Year VN 0536 1949

Certificate Issued July 12, 1949, 19

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

This certifies that, so far as ascertained by or made known to the undersigned, the building at above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses; Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act,—for following occupancies:

1 Story, Type V, Residence, R Occupancy
8'x25'6" Addition.

Owner Howard K. Pore

Owner's Address 12940 Oxnard St.
Van Nuys, Calif.

Form B-95a—20M—12-48 G. E. MORRIS, Superintendent of Building By J. Stafford

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

Address of Building: 10940 Oxnard Street

Permit No. and Year: vn 14137-12103/48

Certificate Issued: July 19, 1949, 19

This certifies that, so far as ascertained by or made known to the undersigned, the building at above address complies with the applicable requirements of the Municipal Code, as follows: Ch. 1, as to permitted uses; Ch. 9, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act,—for following occupancies:

1 Story, Type V, 20' x 30', garage and 8' x 10' laundry room. J-1 and G-1 Occupancy

Owner: Mr. Richard Modiano

Owner's Address: 11651 Riverside Dr.
North Hollywood, Calif.

Form B3095a—20M—1-49 G. E. MORRIS, Superintendent of Building By M. Richards

3

APPLICATION TO ALTER, REPAIR OR DEMOLISH AND FOR A Certificate of Occupancy

Form 8-4-304-247
CITY OF LOS ANGELES
DEPARTMENT
BUILDING AND SAFETY
BUILDING DIVISION

Lot No. The Westerly 33.69 Ft of Lot 14 & the E[illegible] Lot 13, Blk 5 of Tract 3954, Book 141/37-[illegible] incl of maps

Tract

Location of Building 16349 Oxnard St. (House Number and Street)

Between what cross streets Craner & Vineland

Approved by City Engineer — Deputy.

VAN NUYS DISTRICT

USE INK OR INDELIBLE PENCIL

1. Present use of building 3 Car Garage (Store, Dwelling, Apartment House, Hotel or other purpose) Families — Rooms —
2. State how long building has been used for present occupancy Under Construction
3. Use of building AFTER alteration or moving Laundry Room Families — Rooms —
4. Owner Dinchell Bros (First Name) Phone [illegible]
5. Owner's Address [illegible] P. O. [illegible]
6. Certificated Architect — State License No. — Phone —
7. Licensed Engineer — State License No. — Phone —
8. Contractor Dinchell Brothers State License No. [illegible] Phone Sut 25743
9. Contractor's Address 6703 Lankershim Blvd.
10. VALUATION OF PROPOSED WORK (including all labor and material and all permanent fixtures, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon.) $ 160.00
11. State how many buildings NOW on lot and give use of each. 3 Car Garage & 35 Family apartment (Store, Dwelling, Apartment House, Hotel or other purpose)
12. Size of existing building 20 x 30 Number of stories high — Height to highest point 14'
13. Material Exterior Walls Stucco (Wood, Steel or Masonry) Exterior framework Wood (Wood or Steel)
14. Describe briefly all proposed construction and work: 8' X 10' Laundry Room

NEW CONSTRUCTION

15. Size of Addition 8 x 10 Size of Lot 41.69 x 123 Number of Stories when complete 1
16. Footings: Width 12" Depth in Ground 8" Width of Wall 6" Size of Floor Joists [illegible]
17. Size of Studs 2 x 4 Material of Floor Concrete Size of Rafters 2 x 6 Type of Roofing [illegible]

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of this work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here DINCHELL BROTHERS (Owner or Authorized Agent)

By

VAN NUYS DISTRICT — FOR DEPARTMENT USE ONLY

PLAN CHECKING	REINFORCED CONCRETE	FEES	
Date	Bals. Cement		Bldg. Per 2.00
Receipt No.	Tons of Reinforcing Steel		Cert. of Occupancy
Valuation $			Total 2.00
Fee Paid $			

TYPE	GROUP	Maximum No. Occupants	Corner Lot	Key Lot / Corner Lot Reversed	Lot Size 23.7 X 120	20 Feet rear alley / 20 ft. side alley	Clerk
PERMIT No. VN 141,337		Plans and Specifications checked: Counter Check		Zone RE	Fire District No. —	District Map No. 7418	
		Corrections Verified		Bldg. Line — Ft.	Street Widening — Ft.		
PLANS		Plans, Specifications and Application reviewed and approved		Application checked and approved: Ed Jenkins, Clerk		Stamp here when Permit is issued	
Date		For Plans See	R 297/63	Conditional Approval: None	SPRINKLER: Required / Valve Required / Type —	Inspector	

1

APPLICATION TO ERECT A NEW BUILDING AND FOR A CERTIFICATE OF OCCUPANCY

Form B-1-[illegible]-30-[illegible]

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

Lot No. 15 & ~~[illegible]~~ W 33.6' of Lot 14

Block 5

Tract 9854

Location of Building 15[illegible] 44 Oxnard St
(House Number and Street)

Approved by City Engineer
Deputy

Between what cross streets Grener & Winnland

USE INK OR INDELIBLE PENCIL

1. Purpose of building Garages (Store, Dwelling, Apartment House, Hotel, or other purpose) Families Rooms
2. Owner Richard Modinno (Print Name) Phone Su 2 0243
3. Owner's address 11651 Riverside P.O. North Hollywood, Calif.
4. Certificated Architect State License No. Phone
5. Licensed Engineer State License No. Phone
6. Contractor Winchell Brothers State License No. 104999 Phone Su 2 5745
7. Contractor's address 6703 Lankershim Blvd. North Hollywood, Calif.
8. VALUATION OF PROPOSED WORK (Including all labor and material and all permanent lighting, heating, ventilating, water supply, plumbing, fire sprinkler, electrical wiring and elevator equipment therein or thereon.) $ 13,00[illegible].00
9. State how many buildings NOW on lot and give use of each. None (Store, Dwelling, Apartment House, Hotel or other purpose)
10. Size of new building 20 x 30 No. Stories 1 Height to highest point 14 Size lot 53 x 120
11. Material Exterior Walls Frame Stucco Type of Roofing Wood Shingle
12. For Accessory Buildings and similar structures
    (a) Footing: Width 12" Depth in Ground 8" Width of Wall 8"
    (b) Size of Studs 2 x 4 Material of Floor Cement
    (c) Size of Floor Joists None Size of Rafters 2 x 4

I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here Winchell Bros (Owner or Authorized Agent)
By C. H. Winchell

DISTRICT OFFICE VAN NUYS DISTRICT

FOR DEPARTMENT USE ONLY

PLAN CHECKING

Date 6 JUL 65
Receipt No. 45[illegible]
Valuation $ 396002 Hundred
Fee Paid $ 50 00

REINFORCED CONCRETE
Bbls. Cement
Tons of Reinforcing Steel

FEES
Bldg. Per. 6.60
Cert. of Occupancy
Total 6.60

TYPE	GROUP	Maximum No. Occupants	Inside Lot / Corner Lot	Key Lot / Corner Lot Keyed	Lot Size	20 ft. rear alley / 20 ft. side alley	Clerk
I	S-1				120 x 83.7		Kerr

PERMIT No.	Plans and Specifications checked	Zone	Fire District No.	District Map No.
VN 12103	[illegible]	R-4		24 18

	Corrections Verified	Bldg. Line Ft.	Street Widening Ft.	
	[illegible]			

PLANS	Plans, Specifications and Application checked and approved	Application checked and approved	Stamp here when Permit is issued
	[illegible]	[illegible] Clerk	

Mark	For Plans See	Filed with	Customers Inspection	SPRINKLER Specified / Required	Valuation Included Yes — No	Inspector
			[illegible]			

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS
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ASSISTANT DIRECTORS

INDUSTRIAL WASTE
MANAGEMENT DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
OFFICE (323) 342-6200
FAX (323) 342-6111

27-Jun-16
Heather Fields
Waterstone Environmental, Inc.
2936 E. Coronado St.
Anaheim, CA 92806

INDUSTRIAL WASTEWATER DISCHARGE PERMIT INFORMATION

Your request to research our files for Industrial Wastewater Discharge permit information was done by my staff. Our records show the following findings:

[X] No permit on file for: **12924 Oxnard St, Los Angeles, CA 91401**

[X] Permits have been issued for: **13000 Oxnard St, Los Angeles, CA 91401**

(see attachments)

[X] No citations have been issued for the past 5 years. [ ] Yes, citations have been issued (see attachments).

The cost of generating this report is $ **$1.30**

Please remit a check in the above amount, payable to "Department of Public Works", and mail to:

Bureau of Sanitation
Industrial Waste Management Division
2714 Media Center Drive
Los Angeles, CA 90065
Attn: Admin Inspection Group

If you have any questions, please contact Rosemary Cubero of my staff at (323) 342-6064.

Sincerely,
ENRIQUE C. ZALDIVAR, Director
Bureau of Sanitation

By: Bellete W. Yohannes

Bellete Yohannes, Chief Env. Compliance Inspector II
Industrial Waste Management Division

C: Attachment [X] yes [ ] no

Rosemary Cubero

W-502359 IU#-IU020861 STATUS: A SIU SECT.: N DISTRICT: 02 SUBDIST: 04
FOG ZONE: NA SUB-ZONE:
INSPECTOR: BEN ZALDIVAR, TAE KEUN KOH, BEN ZALDIVAR, TAE KEUN KOH

* APPLICATION

APPL. REASON: Existing, but Unpermitted Point of Discharge
RECEIVED DATE: 02/10/03 RECEIPT #:

* INDUSTRIAL USER

LEGAL BUS. NAME: Los Angeles Unified School District
DBA NAME: Grant Senior High 8683
BUSINESS TYPE Public School
OWNERSHIP TYPE Government
ADDRESS: 13000 Oxnard Street
Van Nuys, CA 91401
CONTACT NAME: Joe Bowler TITLE: Plant Manager
BTRC: Exempt PHONE: (818) 310-5287

* INDUSTRIAL USER MAILING ADDRESS

NAME: LAUSD, Energy Unit
ADDRESS: 333 S Beaudry Avenue, Floor 22
Los Angeles, CA 90017
OR P.O. BOX: PHONE: (213) 241-0326
ATTENTION: Jamie Kuniyoshi

* BILLING ADDRESS

NAME: LAUSD, Energy Unit
ADDRESS: 333 S Beaudry Avenue, Floor 22
Los Angeles, CA 90017
OR P.O. BOX: PHONE: (213) 241-0326
ATTENTION: Jamie Kuniyoshi

* CORPORATE OFFICERS

NAME 1: Ibach Linda
TITLE 1: Principal

NAME 2: Roy Romer
TITLE 2: Superintendent

* PROPERTY OWNER

NAME: Los Angeles Unified School District
ADDRESS: 333 S Beaudry Avenue
Los Angeles, CA 90017
OR P.O. BOX: PHONE:
ATTENTION:

* PERMITTEE LOCATION ADDRESS

DESCRIPTION: GRANT SENIOR HIGH 8683
ADDRESS: 13000 Oxnard Street
Van Nuys, CA 91401
OR P.O. BOX: PHONE: (818) 310-5287
ATTENTION: Joe Bowler

COUNCIL DIST.: 2 Paul Krekorian

* GENERAL INFORMATION

STATUS: A
DISTRICT: 02 East Valley District SUB-DISTRICT: 04
FOG ZONE: NA SUB-ZONE:
DISCHARGE START DATE: 06/01/1959
FINAL DISPOSAL CODE: 01 Public Sewer
IND. CLASS.: 111 111-Schools
INSP. CLASS.: IP02 Inspection & Control Fee Class 2
BILLING TYPE/FREQ: G Permit for government property / Quarterly
RESTAURANT SEATING CAP:
LAUNDRY WASHER COUNT/CAPACITY(lbs): /
NUMBER OF GARBAGE GRINDER/EFF DATE: 1 / 10/09/2003

* FACILITY CLASSES

CLASS: LIU:FOG
LIU:LIU
NPDES:NPDES

* SMR FREQUENCIES

FEDERAL: LOCAL: SURCHARGE:

* PERMIT CERTIFICATE

PERMIT TYPE: LIU
PERMIT EFF. DATE: 06/03/2003 AMENDED DATE: 06/03/2011
PERMIT EXP. DATE:
SIU GROUP:

* PERMIT TERMINATION

TERMINATION DATE:
TERMINATION REASON:
REQUESTOR:

* LATERAL CONNECTION ------ SEWER CONNECTION ------

DESCRIPTION: in Oxnard Street - Outlet Num : 0100
WYE MAP ID: SEWER PERMIT: no Sewer Wye Permit found for this parcel
PIPE MATERIAL: SIZE (INCHES):

* FLOW INFORMATION

ORIGINAL TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: 43,223 / 04/01/2003
MAXIMUM TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: /
TOTAL DISCHARGE FLOW (GPD, CAL.)/EFF. DATE: /
AVG CALENDAR DAY FLOW (GPD, CAL.)/EFF. DATE:
AVG OPERATIONAL DAY FLOW (GPD, CAL.)/EFF. DATE:
SFC FLOW (GPD, CAL.)
SURCHARGE FLOW (GPD, CAL.)/EFF. DATE:
SURCHARGE PSDF FLOW (GPD, CAL.)/EFF. DATE:

* SURCHARGE INFORMATION

QUARTERLY SURCHARGE VALUES: SS: 0 MG/L BOD: 0 MG/L
ZERO BASED QUALITY SURCHARGE INDICATOR: N

* SAMPLE POINT INFORMATION

SP: 01-001 3-Stage Underground Clarifier -- Normal Operations
SP TYPE: End-of-Pipe SSF: N FLOW METER PRESENT: N EFFECTIVE DATE: 06/01/1959

* PROCESS UNIT OPERATION

PUO Code:
FBST 000 Basting - Basting
FBOI 000 Boiling - Boiling
WASF 000 Floor Washing - Floor Washing
WASI 000 General Equipment Washing - General Equipment Washing
WASJ 000 General Washing - General Washing

* PRETREATMENT UNIT OPERATION

PTUO CODE:

01001	CL0030	CLARIFICATION - 3 COMPARTMENT 9X3X3, 607 GAL BELOW INVERT W/SAMPLE BOX
	SC0020	SCREENING - STATIONARY SCREENS

* SIC

SIC CODE:

8299	Schools and Educational Services, NEC
5812	Eating Places

* NAICS

NAICS CODE:

* COOLING TOWER

TONNAGE:

* OTHER ENVIRONMENTAL PERMIT(S)

PERMIT#/DESCRIPT.: FSE Number from FOG DB / 20785 / IWMD/FOG
Added FOG Requirements / XX

* OTHER INDUSTRIAL WASTEWATER PERMIT(S)

PERMIT NUMBER(S):

PREPARED BY: ..... DATE: .....

APPROVED BY: ..... DATE: .....

ENTERED BY: ..... DATE: .....

RUN DATE: 6/27/2016
RUN BY: RCUBERO

HEALTH HAZARDOUS MATERIALS DIVISION

INSPECTION REPORT

CERTIFIED UNIFIED PROGRAM AGENCY • PARTICIPATING AGENCY

14425 OLIVE VIEW DRIVE, SYLMAR, CA 91342
PHONE: (818) 364-7120 FAX: (818) 364-7127

BUSINESS:	OWNER:	DATE:
GRANT HIGH SCHOOL	LA USD	5/29/2014
ADDRESS: 13000 OXNARD ST. VAN NUYS 91401		FACILITY ID: 36801

The following requirements, if applicable, have been inspected. This document constitutes a summary of violations and notice to comply if the violation column (V) is checked. ***References:*** *Titles 19 and 22 of the California Code of Regulations (CCR); Chapters 6.5, 6.67, and 6.95 of the California Health and Safety Code (HSC); Titles 11 and 12 of the Los Angeles County Code (Co Ord); and Title 40 Code of Federal Regulations (CFR).* ***NOTE:*** *For all CFR sections refer to CCR 66262.34(d)(2) for applicability.*

INSPECTION TYPE: ☑ INITIAL ☐ RE-INSPECTION ☐ OTHER:

	V	HAZARDOUS WASTE (HW) GENERATOR	SECTION		V	HAZARDOUS WASTE GENERATOR	SECTION
1		HW accumulation time	22CCR12 66262.34(a-d)	27		HW analysis retained for 3 years	22CCR12 66262.40(c)
2		Satellite accumulation	22CCR12 66262.34(e)	28		HW determination	22CCR12 66262.11
3		HW labeling	22CCR12 66262.34(f)	29		Proper disposal of HW	HSC 6.5 25189.5(a)
4		Hazardous materials storage and labeling	22CCR11 66261.2(f)	30		Reckless management of HW	HSC 6.5 25189.6
5		Containers leaking or not in good condition	22CCR15 66265.171 | 40CFR1 265.171	31		Quarantine order	HSC 6.5 25187.6
6		Compatibility of waste with containers	22CCR15 66265.172 | 40CFR1 265.172	32	✓	Maintain/operate to prevent release/fire	22CCR15 66265.31 | 40CFR1 265.31
7		HW containers closed	22CCR15 66265.173(a) | 40CFR1 265.173(a)	33		Required equipment and maintenance	22CCR15 66265.32-.33 | 40CFR 265.32-.33
8		Container inspection – weekly	22CCR15 66265.174 | 40CFR1 265.174	34		Required aisle space	22CCR15 66265.35 | 40CFR1 265.35
9		Separation of incompatibles	22CCR15 66265.177 | 40CFR1 265.177	35		Personnel training	22CCR15 66265.16 | 40CFR1 262.34(d)(5)(iii)
10		Tank overflow and spill prevention	22CCR15 66265.194 | 40CFR1 265.201(b)	36		Emergency information posting [SQGs]	40CFR1 262.34(d)(5)(ii)
11		Tank inspection	22CCR15 66265.195 | 40CFR1 265.201(d)	37		Contingency plan [LQGs]	22CCR15 66265.51
12		Tank system management	22CCR15 66265.190-.202 | 40CFR1 265.201	38		Source reduction requirements [LQGs]	22CCR31 67100.3
13		Empty containers	22CCR11 66261.7	39		Biennial report requirements [RCRA LQGs]	22CCR12 66262.40-.41
14		Used oil management	HSC 6.5 25250.4	40		Closure requirements [LQGs]	22CCR15 66265.111 / .114
15		Used oil / fuel filter management	22CCR16 66266.130 / HSC 6.5 25250.22	41		Site assessment requirements	HSC 6.5 25187(a)(1)
16		Used battery management	22CCR16 66266.81	42		Excluded recyclable material management	HSC 6.5 25143.2 / .9
17		Contaminated textile management	HSC 6.5 25144.5	43		Recyclable material report	HSC 6.5 25143.10
18		EPA ID number [submit DTSC form 1358]	22CCR12 66262.12	44		Universal waste management | Aerosol cans	22CCR23 66273.1-.8 | HSC 6.5 25201.16
19		HW manifest complete	22CCR12 66262.23(a)	45		Other violation(s)	
20		Manifest copies to DTSC	22CCR12 66262.23(a)(4)		V	**HAZARDOUS MATERIALS HANDLER**	**SECTION**
21		Manifest copies retained for 3 years	22CCR12 66262.40(a)	50		HMBP established and implemented	HSC 6.95 25503.5
22		Consolidated manifest requirements	HSC 6.5 25160.2	51		HMBP submitted, updated/accurate	HSC 6.95 25505
23		Manifest exception reporting	22CCR12 66262.42	52		CalARP General Requirements	19CCR4.5 2735.5(a)
24		HW transported with manifest	22CCR12 66262.20		V	**ABOVEGROUND PETROLEUM STORAGE**	**SECTION**
25		HW transported by registered hauler	HSC 6.5 25163(a)	60		SPCC plan	HSC 6.67 25270.4.5(a)
26		Land disposal restriction requirements	22CCR18 66268.7(a)	70		**PERMIT REQUIRED** – Submit UP Forms	Co Ord 12.50.075

☐ **NO SIGNIFICANT VIOLATIONS OBSERVED ON DATE OF INSPECTION.**

☑ **NOTICE TO COMPLY: THE VIOLATION(S) CITED MUST BE CORRECTED BY** 6/29/14.

☑ **RETURN CERTIFICATION OF COMPLIANCE FOUND ON BACK OF THIS NOTICE.**

Attention: The requirements checked are in violation. Non-compliance could result in re-inspection fees, permit revocation, and/or administrative/civil/criminal penalties. A re-inspection may occur at any time to verify compliance. Any time granted for correction of the violation(s) does not preclude any enforcement action by this Department or other agencies.

It is improper and illegal for any County officer, employee or inspector to solicit bribes, gifts or gratuities in connection with performing their official duties. Improper solicitations include requests for anything of value such as cash, discounts, free services, paid travel or entertainment, or tangible items such as food or beverages. Any attempt by a County employee to solicit bribes, gifts or gratuities for any reason should be reported immediately to either the County manager responsible for supervising the employee or the Fraud hotline at (800) 544-6861 or www.lacountyfraud.org. YOU MAY REMAIN ANONYMOUS.

(#32) Clean and maintain the gasoline storage room including shelves and floors. observed accumulation of gasoline residue on the shelves and floor M 6/29/14

Inspected By:	Consent Given By:	Authorized Representative's Signature:
J. PERUKKONIL	Laura Maxwell	Laura Maxwell

FA: 36801 **Consent By:** LAURA MAXWELL

Inspector: J. Perukkonil **Date:** 5/29/2014 **Page #:1**

SECTION 1: Inspection Report basis

☒ Initial Inspection (*Attach detailed Inspection Report if necessary to document processes, waste streams, inventories, etc.*)

☐ Process changes have occurred since last inspection (*Document all changes below.*)

☐ Operations and processes are the same as noted in the Inspection Report dated:_____ (*Complete Section 2 & 3 below*).

SECTION 2: The following hazardous waste generator requirements, if applicable, were determined to be in compliance:

☐ Manifests / Disposal Records
☐ Recordkeeping and Reporting
☐ Accumulation Time Limits
☐ Onsite Treatment
☐ Recyclable Materials
☐ Training / Emergency Response / Contingency Plan
☐ Container Management
☐ Tank Management
☐ Used Oil
☐ Universal Waste

* Items not in compliance during the inspection will be documented on the Notice of Violation.

SECTION 3: The following elements in the HMBP were submitted in CERS have been verified and deemed to be accurate:

☐ Inventory
☐ Emergency Response & Training Plans
☐ Site Map
☐ Not Applicable

Field Notes

II WALK THROUGH

Science Building (100, 700 buildings): 8 Science Classes including Chemistry and Biology. Most of the laboratory experiments are micro chemistry and very small amount of waste is generated from the process. Most of the waste is generated from the year end inventory of the laboratory chemicals. Chemical Safety Coordinator (CSC) is responsible for maintaining inventory and removing all expired chemicals from the shelf.

↳ All hazardous waste, expired chemicals are lab packed and send off site as hazardous waste.

* Gasoline Storage area:

3x55 G drums gasoline for ground maintanance equipment.

↳ drums floor need cleaning → (not)

* Paint storage area:

Waste paint → 1x 20 gallon drum

III DOCUMENTS

CUPA permit - ok. HW disposal record - ok. Cap. training record - ok - new issued.

Perukkonil, James

From: Isaac, Irish <irish.isaac@lausd.net>
Sent: Friday, June 27, 2014 6:48 AM
To: Perukkonil, James
Cc: Maxwell, Laura
Subject: Response to CUPA Inspection Report for Grant High School 5/29/2014 (on the behalf of Laura Maxwell)
Attachments: GRANT HIGH SCHOOL CUPA RESPONSE 2014.pdf; Grant HS CUPA Inspection Report 5_29_14.pdf

Good Morning Mr. Perukkonil,

This is in response to the May 29th, 2014 notice issued to the following site:

- Grant High School, located at 13000 Oxnard St., Van Nuys, CA 91401 (see attached)

We have corrected the deficiency as follows:

- Cleaned and cleared both the shelves and floor of the gasoline storage room (see attached)

Should you have any questions, please contact Laura Maxwell at (213) 241-3001 or laura.maxwell@lausd.net. You maybe also contact me at (213) 241-1350 or irish.isaac@lausd.net. Thank you.

-Irish I.

Irish Isaac
EHS - OEHS - LAUSD
OEHS main line: (213) 241-3199
Desk: (213) 241-1350
Fax: (213) 241-6816

Heather Fields

From: Gallardo, Laura@Waterboards <Laura.Gallardo@waterboards.ca.gov> on behalf of WB-RB4-PublicRecords <RB4-PublicRecords@waterboards.ca.gov>
Sent: Tuesday, June 28, 2016 4:30 PM
To: Heather Fields
Cc: Gallardo, Laura@Waterboards
Subject: RE: Valley Glen File Request/Tracking No 2016062708

The Regional Board has reviewed its files and has concluded that it does not have any records that are responsive to your request.

From: Heather Fields [mailto:hfields@waterstone-env.com]
Sent: Monday, June 27, 2016 9:59 AM
To: WB-RB4-PublicRecords
Subject: Valley Glen File Request

File room personnel: I would like to see if you have any files on the following addresses. Please notify me **as soon as possible** if you have any files, so that I can arrange for a file review.

12924 Oxnard Street, Los Angeles, CA 91401
13000 Oxnard Street, Los Angeles, CA 91401

Thank you for your assistance,

Heather Fields
Senior Associate Scientist
Waterstone Environmental, Inc.
(714) 414-1122 Ext. 226 (Office)
(714) 399-0753 (Fax)
(530) 391-0600 (Cell)
hfields@waterstone-env.com

Please use the following link to send attachments that are greater than 10 MB:
https://dropbox.hightail.com/WaterstoneEnvironmental

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Edmund G. Brown Jr.
Governor

June 27, 2016

Heather Fields
WATERSTONE ENVIRONMENTAL INC
2936 E Coronado Street
Anaheim, CA 92806

12924/13000 OXNARD STREET, LOS ANGELES, CA
PR4-062716-3

Dear Ms. Fields:

The Department of Toxic Substances Control has received your letter to review records under the Public Records Act.

After a thorough review of our files we have found that no such records exist at this office pertaining to the sites/facilities referenced above.

We would like to inform you about EnviroStor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accesses at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available at each DTSC Regional File Room Office for use by community members to view EnviroStor.

If you have any questions or would like further information regarding your request, please contact me at (714) 484-5337.

Sincerely,

Julie Johnson
Julie Johnson
Regional Records Coordinator

Printed on Recycled Paper

Matthew Rodriquez
Secretary for
Environmental Protection

Department of Toxic Substances Control

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

June 28, 2016

Ms. Heather Fields
Waterstone Environmental, Inc.
2936 E. Coronado Street
Anaheim, CA 92806

12924 Oxnard Street, Los Angeles, CA 91401
13000 Oxnard Street, Los Angeles, CA 91401
PR3-062716-07

Dear Ms. Fields:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would also like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. Envirostor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view Envirostor.

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6522.

Sincerely,

Glenn Castillo/aa
Regional Records Coordinator

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UNIFIED PROGRAM (UP) FORMS

Completeness Review Report

Facility name: LAUSD - GRANT HIGH SCHOOL Facility ID: 23672

✓ I. BUSINESS ACTIVITIES DECLARATION

✓ II. BUSINESS OWNER/OPERATOR IDENTIFICATION

III. Hazardous Materials Business Plan must have these:

- Consolidate Contingency Plan –
  - ✓ A. Cover Page
  - ✓ B. Emergency contacts (II)
  - ✓ C. UPA contact (IIIA)
  - ✓ D. Medical facility((IIIB)
  - ✓ E. Clean up/disposal Contractor (IIIC)
  - ✓ F. Evacuation Plan (IIIE)
  - ✓ G. Earthquake Vulnerability (IIIF)
  - ✓ H. Emergency Procedures(IIIG)
  - ✓ I. Equipment list (IV)
- ✓ Site map
- ✓ Employee Training (V)
- ✓ Inventory Chemicals Description

N/A Regulated Substances Registration

N/A UST Emergency Response & Monitor Plan

N/A AST

✓ VII. Hazardous Waste Generator

EPA ID #

Comments:

Data Entry Instruction: ☐ New User ☐ Change of Ownership ☑ Update Inventory

☐ Change GHP ☐ Refer to Inspector ☐ Refer to LA County ☐ Others

Review by: [signature] Data Entry: _____ Chemical review: [signature] Date: 12-12-12

CERT# 10415
FA# 0036801

N/LACity

Los Angeles Unified School District

Office of Environmental Health and Safety

JOHN E. DEASY
Superintendent of Schools

ENRIQUE G. BOULLT
Interim Chief Operating Officer

JOHN STERRITT
Director

September 12, 2012

Los Angeles County Fire Department
Health Hazardous Materials Division
Data Operations Unit
5825 Rickenbacker Road
Commerce, CA 90040

SUBJECT: SUBMITTAL OF CONSOLIDATED CONTINGENCY PLAN FOR GRANT HIGH SCHOOL

The Los Angeles Unified School District would like to submit a Consolidated Contingency Plan for the following site:

Facility Name: Grant High School
Street Address: 13000 Oxnard Street
City, State Zip: Van Nuys, CA 91401

This plan is for the reporting year 2012. If you have any questions, please contact me at (213) 241-3199.

Sincerely,

Graciela Merchan

c. Soe Aung, Environmental Health Supervisor
Linda Ibach, Grant High School

Enclosure(s):

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333 S. Beaudry Avenue, 27th Floor, Los Angeles, CA 90017 - Telephone (213) 241-3199 - Fax (213) 241-6816

UNIFIED PROGRAM (UP) FORM
BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID #														1	EPA ID # (Hazardous Waste Only) 2 CAD982024739

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) 3

Grant High School

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UP FORM....	
A. HAZARDOUS MATERIALS		
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☑ Yes ☐ No 4	→HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION →CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) →TRAINING PLAN
B. UNDERGROUND STORAGE TANKS (USTs)		
1. Own or operate underground storage tanks?	☐ Yes ☑ No 5	→UST FACILITY →UST TANK (one page per tank)
2. Intend to upgrade existing or install new USTs?	☐ Yes ☑ No 6	→UST FACILITY →UST TANK (one per tank) →UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank)
3. Need to report closing a UST?	☐ Yes ☑ No 7	→UST TANK (closure portion –one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		
Own or operate ASTs above these thresholds: --any tank capacity is greater than 660 gallons, or --the total capacity for the facility is greater than 1,320 gallons?	☐ Yes ☑ No 8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☑ Yes ☐ No 9	→EPA ID NUMBER – provide at the top of this page. →As a generator, answer YES to Item E2b and complete Waste Generator Form.
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ Yes ☑ No 10	→RECYCLABLE MATERIALS REPORT
3. Treat hazardous waste on site?	☐ Yes ☑ No 11	→ONSITE HAZARDOUS WASTE TREATMENT – FACILITY →ONSITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ Yes ☑ No 12	→CERTIFICATION OF FINANCIAL ASSURANCE
5. Consolidate hazardous waste generated at a remote site?	☐ Yes ☑ No 13	→REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ Yes ☑ No 14	→HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
E. LOCAL REQUIREMENTS		15
1. REGULATED SUBSTANCES		
Have Regulated Substances (RS) stored on site at greater than the threshold quantities established by the California Accidental Release Program (Cal ARP) ?	☐ Yes ☑ No 15a	In addition to Hazardous Materials requirements, complete: →Regulated Substance Registration →Risk Management Plan (when required)
2. OTHER REQUIREMENTS		
a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance?	☐ Yes ☑ No 15b	→Consult local CUPA or PA for added reporting requirements.
b. Required by a CUPA or PA to provide other information?	☑ Yes ☐ No 15c	→Waste Generator Form (LA County)

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OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

UNIFIED PROGRAM (UP) FORM
BUSINESS OWNER/OPERATOR IDENTIFICATION

☐ NEW BUSINESS ☐ OUT OF BUSINESS ☑ REVISE/UPDATE (EFFECTIVE) PAGE OF

I. IDENTIFICATION

FACILITY ID# 1	BEGINNING DATE 100: 1/1/2012	ENDING DATE 101: 12/31/2012	
BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3: Grant High School		BUSINESS PHONE 102: (818) 756-2700	
BUSINESS SITE ADDRESS 103: 13000 Oxnard Street			
CITY 104: Van Nuys	CA	ZIP CODE 105: 91401	
DUN & BRADSTREET 106: N/A		SIC CODE (4 digit #) 107: 8211	
COUNTY 108: Los Angeles		UNINCORPORATED 133a.: No	
BUSINESS OPERATOR NAME 109: Los Angeles Unified School District		BUSINESS OPERATOR PHONE 110: (213) 241-3199	

II. BUSINESS OWNER

OWNER NAME 111: Los Angeles Unified School District		OWNER PHONE 112: (213) 241-3199
OWNER MAILING ADDRESS 113: 333 S. Beaudry Avenue, 28th Floor		
CITY 114: Los Angeles	STATE 115: CA	ZIP CODE 116: 90017

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117: Soe Aung		CONTACT PHONE 118: (213) 241-3199
CONTACT MAILING ADDRESS 119: 333 S. Beaudry Avenue, 28th Floor		
CITY 120: Los Angeles	STATE 121: CA	ZIP CODE 122: 90017

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123: Linda Ibach	NAME 128: Evan R. Smith
TITLE 124: Principal	TITLE 129: Plant Manager
BUSINESS PHONE 125: (818) 756-2704	BUSINESS PHONE 130: (818) 756-2700
24-HOUR PHONE 126:	24-HOUR PHONE 131:
PAGER # 127:	PAGER # 132:

V. ADDITIONAL LOCALLY COLLECTED INFORMATION 133

NUMBER OF EMPLOYEES 133b: 5	FEDERAL TAX IDENTIFICATION NUMBER 133c:

MAILING/ BILLING INFORMATION

ADDRESS 133d	CITY 133e	STATE 133f	ZIP CODE 133g
333 S. Beaudry Avenue, 28th Floor	Los Angeles	CA	90017

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE: Linda Ibach	DATE 134: 9/7/2012	NAME OF DOCUMENT PREPARER 135: Graciela Merchan
NAME OF SIGNER (print) 136: Linda Ibach	TITLE OF SIGNER 137: Principal	

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OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

INSPECTOR	DISTRICT	DATE OF INSPECTION	DIVISION	BATTALION	STATION

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Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

COVER PAGE

FACILITY IDENTIFICATION			
BUSINESS NAME **Grant High School**		3	FACILITY ID # 1
SITE ADDRESS **13000 Oxnard Street**	103	CITY **Van Nuys** 104	ZIP CODE 105 **91401**

The Consolidated Contingency Plan provides businesses a format to comply with the emergency planning requirements of the following three written hazardous materials emergency response plans required in California:

- Hazardous Materials Business Plan (HSC Chapter 6.95 Section 25504 (b) and 19 CCR Sections 2729-2732),
- Hazardous Waste Generator Contingency Plan (22 CCR Section 66264.52), and,
- Underground Storage Tank Emergency Response Plan and Monitoring Program (23 CCR Sections 2632 and 2641).

This format is designed to reduce duplication in the preparation and use of emergency response plans at the same facility, and to improve the coordination between facility response personnel and local, state and federal emergency responders during an emergency. Use the chart below to determine which sections of the Consolidated Contingency Plan need to be completed for your facility. If you are unsure as to which programs your facility is subject to, refer to the Business Activities Page.

PROGRAMS	SECTION(S) TO BE COMPLETED
Hazardous Materials Business Plan (HMBP)	Cover Page, Section I, and Site Map(s)
Hazardous Waste Generator (HWG)	Cover Page, Section I, and Site Map(s)
Underground Storage Tank (UST)	Cover Page, Sections I and II, and Site Map(s)
HMBP, HWG, UST	Cover Page, Sections I and II, and Site Map(s)

A copy of the plan shall be submitted to your local CUPA and at least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency. Describe below where a copy of your Contingency Plan, including the hazardous material inventories and Site Map(s), is located at your business:

Main Office

PLAN CERTIFICATION

I certify under penalty of law that I have personally examined and I am familiar with the information provided by this plan and to the best of my knowledge the information is accurate, complete, and true.

Printed Name of Owner/ Operator	Title of Owner/Operator
Linda Ibach	**Principal**
Signature of Owner/ Operator Linda Ibach	Date **9/7/2012**

We appreciate the effort of local businesses in completing these plans and will assist in every possible way. If you have any questions, please contact your local CUPA or PA.

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DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

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Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

I. FACILITY IDENTIFICATION

BUSINESS NAME 3 **Grant High School**		FACILITY ID # 1
SITE ADDRESS 103 **13000 Oxnard Street**	CITY 104 **Van Nuys**	ZIP CODE 105 **91401**

II. EMERGENCY CONTACTS

PRIMARY		SECONDARY	
NAME **Linda Ibach**	123	NAME **Evan R. Smith**	128
TITLE **Principal**	124	TITLE **Plant Manager**	129
BUSINESS PHONE **(818) 756-2704**	125	BUSINESS PHONE **(818) 756-2700**	130
24-HOUR PHONE	126	24-HOUR PHONE	131
PAGER #	127	PAGER #	132

III. EMERGENCY RESPONSE PLANS AND PROCEDURES

A. Notifications

Your business is required by State Law to provide an immediate verbal report of any release or threatened release of a hazardous material to local fire emergency response personnel, this Unified Program Agency (CUPA or PA), and the Office of Emergency Services. If you have a release or threatened release of hazardous materials, immediately call:

FIRE/PARAMEDICS/POLICE/SHERIFF
PHONE: 911

AFTER the local emergency response personnel are notified, you shall then notify this Unified Program Agency and the Office of Emergency Services.

Local Unified Program Agency: ~~(323) 890-4317~~
State Office of Emergency Service: (800) 852-7550 or (916) 262-1621
National Response Center: (800) 424-8802

Information to be provided during Notification:

- Your Name and the Telephone Number from where you are calling.
- Exact address of the release or threatened release.
- Date, time, cause, and type of incident (e.g. fire, air release, spill etc.)
- Material and quantity of the release, to the extent known.
- Current condition of the facility.
- Extent of injuries, if any.
- Possible hazards to public health and/ or the environment outside of the facility.

B. Emergency Medical Facility

List the local emergency medical facility that will be used by your business in the event of an accident or injury caused by a release or threatened release of hazardous material

HOSPITAL/CLINIC: **U. S. Healthworks Medical Group**	PHONE NO: **(818) 893-4426**
ADDRESS: **16300 Roscoe Blvd.**	
CITY: **Van Nuys**	ZIP CODE: **91406**

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SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

C. Private Emergency Response

DOES YOUR BUSINESS HAVE A PRIVATE ON-SITE EMERGENCY RESPONSE TEAM? ☐ Yes ☑ No

If yes, provide an attachment that describes what policies and procedures your business will follow to notify your on-site emergency response team in the event of a release or threatened release of hazardous materials.

CLEANUP/DISPOSAL CONTRACTOR

List the contractor that will provide cleanup services in the event of a release.

NAME OF CONTRACTOR:	PHONE NO:
Ecology Control Industries	**(310) 354-9999**
ADDRESS: **19500 Normandie Avenue**	
CITY: **Torrance, CA**	ZIP CODE: **90501**

D. Arrangements With Emergency Responders

If you have made special (i.e. contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements on the lines below:

All LAUSD schools are served by the School District Police Department. In addition, they are supported by the District's Office of Environmental Health and Safety that has an Emergency Response team that is trained and licensed to oversee hazardous material clean-up.

E. Evacuation Plan

1. The following alarm signal(s) will be used to begin evacuation of the facility *(check all which apply)*:

☑ Verbal ☑ Telephone *(including cellular)* ☑ Alarm System ☑ Public Address System ☑ Intercom
☐ Pagers ☑ Portable Radio ☐ Other *(specify)*:

2. ☑ Evacuation map is prominently displayed throughout the facility. **Yes. In the Safe School Plan**

3. ☑ Individual(s) responsible for coordinating evacuation including spreading the alarm and confirming the business has been evacuated: **All Administrative Staff, Certificated and Classified Staff - See Safe School Plan, Volume 2**

F. Earthquake Vulnerability

Identify areas of the facility where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Hazardous Waste/ Hazardous Materials Storage Areas ☐ Production Floor ☐ Process Lines
☐ Bench/ Lab ☐ Waste Treatment ☐ Other:

Identify mechanical systems where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Utilities ☑ Sprinkler Systems ☑ Cabinets ☑ Shelves
☑ Racks ☐ Pressure Vessels ☐ Gas Cylinders ☐ Tanks
☐ Process Piping ☑ Shutoff Valves ☐ Other:

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

G. Emergency Procedures

Briefly describe your business standard operating procedures in the event of a release or threatened release of hazardous materials:

1. **PREVENTION** (prevent the hazard) - Describe the kinds of hazards associated with the hazardous materials present at your facility. What actions would your business take to prevent these hazards from occurring? You may include a discussion of safety and storage procedures.

All Los Angeles City schools are limited to a small number of approved chemicals that are allowed on campus. Chemistry classes are encouraged to use "Micro Chemistry" to reduce the quantity of chemicals being used and stored on campus. Schools are not allowed to store or use any kinds of herbicides or pesticides for weed or pest management.

Gasoline drums shall be stored inside a locked flammable liquid storage room (i.e. gasoline bunker or block house) and shall be posted with 'No Smoking' and 'Flammable Liquid' signs outside the room. Gasoline drums shall be grounded with wire at all times. Diesel drums shall also be kept inside the flammable liquid storage room. 'No Smoking' and ' Combustible Liquid' signs shall be posted for diesel drums. Welding process shall not be conducted nearby this room. It is strongly suggested to store minimal quantity and to use secondary containment system for these drums.

Compressed gas cylinders shall be chained at all times. A compressed gas sign shall be posted on the cylinder(s) or by the cylinder(s). Waste oil and waste anti-freeze drums shall be kept inside the secondary containment system and affixed with completed hazardous waste labels

2. **MITIGATION** (reduce the hazard) - Describe what is done to lessen the harm or the damage to person(s), property, or the environment; and prevent what has occurred from getting worse or spreading. What is your immediate response to a leak, spill, fire, explosion, or airborne release at your business?

All Los Angeles City School personnel receive annual training on chemical safety. In addition, specific classes of employees receive additional training on chemical use and safety. At least once a year the schools are inspected by a School Safety Officer and chemical supplies are inspected. Outdated and unauthorized chemicals are removed.

3. **ABATEMENT** (remove the hazard) - Describe what you would do to stop and remove the hazard. How do you handle the complete process of stopping a release, cleaning up, and disposing of released materials at your facility?

All Los Angeles City Schools follow specific directions found in Safe School Plan, Volume 2 - Emergency Procedures. If a substance is released the students are evacuated to a safe zone, the release area is isolated and access is restricted. Small Leaks/Spills: Plant Manager and/or Chemical Safety Coordinator (CSC) at school will clean up small spills of science chemicals, automotive fluids, or janitorial chemicals by using absorbent. The Office of Environmental Health and Safety must be notified for proper disposal at off-site licensed facilities. Large Leaks/Spills: The school will call the Office of Environmental Health and Safety and their Emergency Response Team will work with local responders and District contractors to abate the condition.

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

IV. Emergency Equipment

22 CCR, Section 66265.52(e) [as referenced by Section 66262.34(a)(3)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

1. Equipment Category	2. Equipment Type	3. Location *	4. Description**
Personal Protective, Equipment, Safety Equipment, and First Aid Equipment	☐ Cartridge Respirators		
	☐ Chemical Monitoring Equipment *(describe)*		
	☑ Chemical Protective Aprons/Coats		Rubberized (Emergency Bin, Science labs)
	☑ Chemical Protective Boots		Rain boots
	☑ Chemical Protective Gloves		Latex (Emergency Bin, Science Labs)
	☐ Chemical Protective Suits *(describe)*		
	☑ Face Shields		Fullface (PM Office)
	☑ First Aid Kits/Stations *(describe)*		Standard (Emergency Bin, Nurse office)
	☑ Hard Hats		Plastic (Emergency Bin)
	☑ Plumbed Eye Wash Stations		Standard (Science clsrms)
	☑ Portable Eye Wash Kits *(i.e. bottle type)*		Eyesaline (Science clsrms)
	☐ Respirator Cartridges *(describe)*		
	☑ Safety Glasses/Splash Goggles		Standard vented plastic(PM Office, Science clsrms)
	☐ Safety Showers		
	☐ Self-Contained Breathing Apparatuses (SCBA)		
	☑ Other *(describe)*		Defibrillators (Nurse office, PA)
Fire Extinguishing Systems	☑ Automatic Fire Sptinkler Systems		Standard
	☑ Fire Alarm Boxes/Stations		Standard
	☑ Fire Extinguisher Systems *(describe)*		Standard
	☑ Other *(describe)*		Fire blankets (Science labs)
Spill Control Equipment and Decontamination Equipment	☑ Absorbents (describe)		Absorbent, chemical pads (PM office, Science Labs)
	☐ Berms/Dikes (describe)		
	☐ Decontamination Equipment (describe)		
	☐ Emergency Tanks (describe)		
	☑ Exhaust Hoods		Fume hood (Science labs, kitchen)
	☐ Gas Cylinders Leak Repair Kits (describe)		
	☐ Neutralizers (describe)		
	☐ Overpack Drums		
	☐ Sumps (describe)		
	☐ Other (describe)		
Communications and Alarm Systems	☐ Chemical Alarms (describe)		
	☑ Intercoms/ PA Systems		
	☑ Portable Radios		
	☑ Telephones		
	☐ Underground Tank Leak Detection Monitors		
	☐ Other (describe)		
Additional Equipment (Use Additional Pages if Needed.)			

**Use the Location Codes (LC) from the Site Map(s) prepared for your Contingency Plan.*

***Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SITE MAP

A site plan and storage map must be included with your Contingency Plan. For relatively small facilities, these documents may be combined into one drawing. Since these drawings are intended for use in emergency response situations, larger facilities *(generally those with complex and/or multiple buildings)* should provide an overall site plan and a separate storage map for each building/storage area. A blank Facility Site Map has been provided on the reverse side of this page. You may complete that page or attach any other drawing(s) which contain(s) the information required below.

1. **Site Plan:** This drawing shall contain, at a minimum, the following information:

   a. Site Orientation (north, south, etc.);
   b. Approximate scale *(e.g. "1 inch = 10 feet".)*;
   c. Date the map was drawn;
   d. Locations of all buildings and other structures;
   e. Parking lots and internal roads;
   f. Hazardous materials loading/unloading areas;
   g. Outside hazardous materials storage or use areas;
   h. Storm drain and sanitary sewer drain inlets;
   i. Wells for monitoring of underground tank systems;
   j. Primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas;
   k. Adjacent property use;
   l. Locations and names of adjacent streets and alleys;
   m. Access and egress points and roads.

2. **Storage Map(s):** The map(s) shall contain, at a minimum, the following information:

   a. General purpose of each section/area within each building *(e.g. "Office Area", "Manufacturing Area", etc.)*;
   b. Location of each hazardous material/waste storage, dispensing, use, or handling area *(e.g. individual underground tanks, aboveground tanks, storage rooms, paint booths, etc.)*. Each area shall be identified by a unique location code number, letter, or name *(e.g. "1", "2", "3"; "A", "B", "C", etc.)*;
   c. Entrances to and exits from each building and hazardous material/waste room/area;
   d. Location of each utility emergency shut-off point *(i.e. gas, water, electric.)*;
   e. Location of each monitoring system control panel *(e.g. underground tank monitoring, toxic gas monitoring, etc.)*.

3. **Map Legend**

Item and/or Description	Location Code (LC)
Fuel Bunker	
Agricultural Fuel Bunker (diesel)	
Main water shut-off	
Main gas shut-off	
Main electrical shut-off	
Fire Department Connection	
Hydrant	
Paint storage bin	
Cleaner storage bin	
Fire splinker shut-off	
Emergency Bin	

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2012** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Gasoline

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Gasoline** 207

EHS* ☐ Yes ☑ No 208

CAS# **8006-61-9** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **55 gallons**

MAXIMUM DAILY AMOUNT 218 **110 gallons**

ANNUAL WASTE AMOUNT 219 **NA**

STATE WASTE CODE 220 **N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **365**

STORAGE CONTAINER

ABOVE GROUND TANK	☐ e. PLASTIC/NONMETALLIC DRUM	☐ i. FIBER DRUM	☐ m. GLASS BOTTLE	☐ q. RAIL CAR
UNDERGROUND TANK	☐ f. CAN	☐ j. BAG	☐ n. PLASTIC BOTTLE	☐ r. OTHER
TANK INSIDE BUILDING	☐ g. CARBOY	☐ k. BOX	☐ o. TOE BIN	
STEEL DRUM	☐ h. SILO	☐ i. CYLINDER	☐ p. TANK WAGON	

223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
11 226	**Xylene, mixed isomers** 27	☐ Yes ☑ No 228	**1330-20-7** 229
12 230	**Toluene** 31	☐ Yes ☑ No 232	**108-88-3** 233
5 234	**Benzene** 35	☐ Yes ☑ No 236	**71-43-2** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR 2012 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Diesel Fuel

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Diesel Fuel** 207

EHS* ☐ Yes ☑ No 208

CAS# **437986-25-09** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) **3** 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☑ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30 gallons	**55 gallons**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER

ABOVE GROUND TANK	☐ e. PLASTIC/NONMETALLIC DRUM	☐ i. FIBER DRUM	☐ m. GLASS BOTTLE	☐ q. RAIL CAR
UNDERGROUND TANK	☐ f. CAN	☐ j. BAG	☐ n. PLASTIC BOTTLE	☐ r. OTHER
TANK INSIDE BUILDING	☐ g. CARBOY	☐ k. BOX	☐ o. TOE BIN	
STEEL DRUM	☐ h. SILO	☐ i. CYLINDER	☐ p. TANK WAGON	

223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
100 226	**Diesel** 27	☐ Yes ☑ No 228	**437986-25-09** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Maintex Super Polymer 85

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Polymer Floor Finish** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
25 Gallons	**50 Gallons**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
PLASTIC/NONMETALLIC DRUM
CAN
CARBOY
SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
<8 226	**Diethylene Glycol Ethyl Ether** 27	☐ Yes ☑ No 228	**111-90-0** 229
<1 230	**Tributoxyethyl Phosphate** 31	☐ Yes ☑ No 232	**78-51-3** 233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Latex Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Latex Paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **N/A** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **0**

MAXIMUM DAILY AMOUNT 218 **0**

ANNUAL WASTE AMOUNT 219 **N/A**

STATE WASTE CODE 220

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **0**

STORAGE CONTAINER 223
- ☐ a. ABOVE GROUND TANK
- ☐ B. UNDERGROUND TANK
- ☐ c. TANK INSIDE BUILDING
- ☐ d. STEEL DRUM
- PLASTIC/NONMETALLIC DRUM
- CAN
- CARBOY
- SILO
- ☐ i. FIBER DRUM
- ☐ j. BAG
- ☐ k. BOX
- ☐ i. CYLINDER
- ☐ m. GLASS BOTTLE
- ☐ n. PLASTIC BOTTLE
- ☐ o. TOE BIN
- ☐ p. TANK WAGON
- ☐ q. RAIL CAR
- ☐ r. OTHER

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
16.5 226	**Titanium Dioxide** 27	☐ Yes ☑ No 228	**013463-67-7** 229
30.9 230	**Calcium Carbonate** 31	☐ Yes ☑ No 232	**000471-34-1** 233
0.1 234	**Silica, Crystalline** 35	☐ Yes ☑ No 236	**014808-60-7** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Solid Waste (Lead Debris)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Solid Waste (Lead Debris)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **40 cubic yards** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	181

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☑ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222
0

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Solid Waste (Lead Debris)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **H-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Liquid Waste (Clarifier Sludge)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Liquid Waste (Clarifier Sludge)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **2000 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	135

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
100 226	Liquid Waste (Clarifier Sludge) 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Flammable Liquid Waste (Lab Pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Flammable Liquid Waste (Lab Pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	551

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 0 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Flammable liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive liquid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive liquid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	551

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **0** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☑ DELETE ☐ REVISE REPORTING YEAR **2012** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive solid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive solid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	**0**	**0**	**551**

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☑ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **0** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☑ r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive solid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2012** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Water base paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **107-21-1** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **30 gallons**

MAXIMUM DAILY AMOUNT 218 **50 gallons**

ANNUAL WASTE AMOUNT 219 **NA**

STATE WASTE CODE 220 **NA**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **365**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 226	**Ethylene glycol** 27	☐ Yes ☑ No 228	**107-21-1** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☑ ADD ☐ DELETE ☐ REVISE REPORTING YEAR **2012** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201
Plant manager storage area

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) 202 ☐ Yes ☑ No

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Asbestos debris

TRADE SECRET 206 ☐ Yes ☑ No
If Subject to EPCRA, refer to instructions

COMMON NAME **Asbestos debris** 207

EHS* 208 ☐ Yes ☑ No

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **40 cy** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
9	17.6	17.6	151

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☑ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **60**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
100 226	**Asbestos debris** 27	☐ Yes ☑ No 228	**na** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS WASTE GENERATOR

PAGE OF

BUSINESS NAME: Grant High School		
FACILITY ID #	NO. OF EMPLOYEES: 33b 5	EPA ID # CAD982024739

I. TYPE OF GENERATOR

PLEASE CHECK THE FOLLOWING BOXES THAT APPLY

	RCRA GENERATOR (FEDERAL WASTE)	NON -RCRA GENERATOR (CALIFORNIA WASTE ONLY)
LARGE QUANTITY GENERATOR (>1000 KG HAZARDOUS WASTE PER MONTH)	☐	☑
SMALL QUANTITY GENERATOR (>100 KG BUT <1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (< 100 KG HAZARDOUS WASTE PER MONTH)	☐	☐

II. WASTE STREAM IDENTIFICATION

PLEASE COMPLETE THE TABLE BELOW. SEE INSTRUCTIONS FOR CODES AND EXPLANATION.

PROCESS	WASTE DESCRIPTION	WASTE ID	AMOUNT PER YEAR	DISPOSAL METHOD	STORAGE METHOD
Maintenance	**Asbestos debris**	**151**	**17.6 tons**	**Landfill**	**40 cy**

I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR NAME Linda Ibach	OWNER/OPERATOR TITLE Principal
OWNER/OPERATOR SIGNATURE Linda Ibach	DATE 9/7/2012

HHMD

OFFICIAL USE ONLY	DATE RECEIVED		REVIEWED BY
CUPA	PA	DISTRICT	INSPECTOR

2012 OCT 9 AM 11 43

RECEIVED
LA CO FIRE DEPT

City of Los Angeles Fire Department

Fire Prevention Bureau – Technical Section
200 N. Main Street, Room 1780
Los Angeles, CA 90012

ANNUAL INVENTORY UPDATE

3-27-12

Facility ID: FA0023672

LAUSD - ULYSSES S GRANT HIGH SCHOOL
333 S BEAUDRY AVE, 27TH FL
LOS ANGELES, CA 90017

LOS ANGELES UNIFIED SCHOOL DIS
13000 OXNARD ST
VAN NUYS, CA 91401

Date last business plan submitted: 3-4-11

Annual Inventory Update (choose one method):

☐ **Modify existing business information and inventory** (see reverse side of this form) **OR**

☐ **Submit new inventory** (must complete business information and chemical inventory forms) **OR**

☒ **Complete Certification Statement 9** (below) stating that the inventory submitted within the last year is complete, accurate and current.

The Certification Statement can only be used if all of the following conditions apply:

1. Business has previously filed the hazardous materials inventory report
2. Company official signs **Certification Statement** and attests to:
   a. Most recently submitted inventory is complete, accurate and up to date
   b. No change in quantity of reportable hazardous materials is accurate and up to date
   c. All hazardous materials are listed in that inventory
3. Business is not subject to EPCRA (Emergency Planning and Community Right to Know Act) reporting requirements

CERTIFICATION STATEMENT:

I certify that I am the business owner or officially designated representative of the business listed at the top of this form.

I certify that the information contained in the hazardous materials inventory most recently submitted to the Los Angeles Fire Department CUPA is complete, accurate, and up to date.

There has been no change in the quantity of hazardous materials reported in the most recently submitted inventory.

No hazardous materials subject to inventory requirements are being handled that are not listed on the most recently submitted inventory.

Signature

1/20/2012
Date

EHS
Title

By MARCH 1, 2012, please return to:

City of Los Angeles Fire Department
Fire Prevention Bureau - Technical Section
200 N. Main Street, Room 1780
Los Angeles, CA 90012

California Health and Safety Code, Chapter 6.95 requires all handlers of hazardous materials to annually update their hazardous material inventory with the local administering agency on or before March 1. The City of Los Angeles Fire Department, as that agency, processes and maintains business emergency response plans and inventories for businesses within the City.

Only list changes to your existing inventory here (you may attach additional pages if necessary)

Chemical Name/CAS #	Maximum daily amount	Storage Container	Physical State: gal, lbs, cubic ft.	Storage Location	Inactive Y or N	Effective date

Please list any Business/ Owner changes. (If you have further information to submit, you may attach additional pages)
A copy of your business license is required when reporting a change of ownership.

Owner Name	Business name	Mailing address	Other	Effective Date

For more information on the CUPA Program, please visit our website:
http://www.lafd.org/prevention or **call (213) 978-3680.**

Cert mail # 9171082133393876798410

FA0023672

N

Los Angeles Unified School District

Office of Environmental Health and Safety

RAMON C. CORTINES
Superintendent of Schools

ENRIQUE G. BOULL'T
Interim Chief Operating Officer

JOHN STERRITT
Director

April 13, 2011

~~FA0036801~~

Los Angeles County Fire Department
Health Hazardous Materials Division
Data Operations Unit
5825 Rickenbacker Road
Commerce, CA 90040

SUBJECT: SUBMITTAL OF CONSOLIDATED CONTINGENCY PLAN FOR GRANT HIGH SCHOOL

The Los Angeles Unified School District would like to submit a Consolidated Contingency Plan for the following site:

Facility Name: Grant High School
Street Address: 13000 Oxnard Street
City, State Zip: Van Nuys, CA 91401

This plan is for the reporting year 2011. If you have any questions, please contact me at (213) 241-3199.

Sincerely,

Graciela Merchan

c. Soe Aung, Environmental Health Supervisor
Linda Ibach, Grant High School

Enclosure(s):

Received
APR 19 2011
HHMD - Data Ops

Cert mail # 9 1 7 1 0 8 2 1 3 3 3 9 3 8 7 6 7 9 8 4 4 0

UNIFIED PROGRAM (UP) FORM
BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID #	1	EPA ID # (Hazardous Waste Only) CAD982024739	2

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) 3

Grant High School

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...	If Yes, please complete these pages of the UP FORM....		
A. HAZARDOUS MATERIALS			
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☑ Yes ☐ No	4	→HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION →CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) →TRAINING PLAN
B. UNDERGROUND STORAGE TANKS (USTs)			
1. Own or operate underground storage tanks?	☐ Yes ☑ No	5	→UST FACILITY →UST TANK (one page per tank)
2. Intend to upgrade existing or install new USTs?	☐ Yes ☑ No	6	→UST FACILITY →UST TANK (one per tank) →UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank)
3. Need to report closing a UST?	☐ Yes ☑ No	7	→UST TANK (closure portion –one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)			
Own or operate ASTs above these thresholds: —any tank capacity is greater than 660 gallons, or —the total capacity for the facility is greater than 1,320 gallons?	☐ Yes ☑ No	8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE			
1. Generate hazardous waste?	☑ Yes ☐ No	9	→EPA ID NUMBER – provide at the top of this page. →As a generator, answer YES to Item E2b and complete Waste Generator Form.
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ Yes ☑ No	10	→RECYCLABLE MATERIALS REPORT
3. Treat hazardous waste on site?	☐ Yes ☑ No	11	→ONSITE HAZARDOUS WASTE TREATMENT – FACILITY →ONSITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ Yes ☑ No	12	→CERTIFICATION OF FINANCIAL ASSURANCE
5. Consolidate hazardous waste generated at a remote site?	☐ Yes ☑ No	13	→REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ Yes ☑ No	14	→HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
E. LOCAL REQUIREMENTS			15
1. REGULATED SUBSTANCES			
Have Regulated Substances (RS) stored on site at greater than the threshold quantities established by the California Accidental Release Program (Cal ARP) ?	☐ Yes ☑ No	15a	In addition to Hazardous Materials requirements, complete: →Regulated Substance Registration →Risk Management Plan (when required)
2. OTHER REQUIREMENTS			
a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance?	☐ Yes ☑ No	15b	→Consult local CUPA or PA for added reporting requirements.
b. Required by a CUPA or PA to provide other information?	☑ Yes ☐ No	15c	→Waste Generator Form (LA County)

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APR 19 2011
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OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

UNIFIED PROGRAM (UP) FORM
BUSINESS OWNER/OPERATOR IDENTIFICATION

☐ NEW BUSINESS ☐ OUT OF BUSINESS ☑ REVISE/UPDATE (EFFECTIVE) PAGE OF

I. IDENTIFICATION

FACILITY ID# 1		BEGINNING DATE 100: 1/1/2011	ENDING DATE 101: 12/31/2011
BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3: Grant High School		BUSINESS PHONE 102: (818) 756-2700	
BUSINESS SITE ADDRESS 103: 13000 Oxnard Street			
CITY 104: Van Nuys	CA	ZIP CODE 105: 91401	
DUN & BRADSTREET 106: N/A		SIC CODE (4 digit #) 107: 8211	
COUNTY 108: Los Angeles		UNINCORPORATED 133a.: No	
BUSINESS OPERATOR NAME 109: Los Angeles Unified School District		BUSINESS OPERATOR PHONE 110: (213) 241-3199	

II. BUSINESS OWNER

OWNER NAME 111: Los Angeles Unified School District		OWNER PHONE 112: (213) 241-3199
OWNER MAILING ADDRESS 113: 333 S. Beaudry Avenue, 27th Floor		
CITY 114: Los Angeles	STATE 115: CA	ZIP CODE 116: 90017

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117: Soe Aung		CONTACT PHONE 118: (213) 241-3199
CONTACT MAILING ADDRESS 119: 333 S. Beaudry Avenue, 27th Floor		
CITY 120: Los Angeles	STATE 121: CA	ZIP CODE 122: 90017

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123: Linda Ibach	NAME 128: Evan R. Smith
TITLE 124: Principal	TITLE 129: Plant Manager
BUSINESS PHONE 125: (818) 756-2704	BUSINESS PHONE 130: (818) 756-2700
24-HOUR PHONE 126:	24-HOUR PHONE 131:
PAGER # 127:	PAGER # 132:

Received
APR 19 2011
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V. ADDITIONAL LOCALLY COLLECTED INFORMATION 133

NUMBER OF EMPLOYEES 133b: 3	FEDERAL TAX IDENTIFICATION NUMBER 133c:

MAILING/ BILLING INFORMATION

ADDRESS 133d	CITY 133e	STATE 133f	ZIP CODE 133g
333 S. Beaudry Avenue, 27th Floor	Los Angeles	CA	90017

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE: Linda Ibach	DATE 134: 3/4/2011	NAME OF DOCUMENT PREPARER 135: Graciela Merchan
NAME OF SIGNER (print) 136: Linda Ibach	TITLE OF SIGNER 137: Principal	

OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

INSPECTOR	DISTRICT	DATE OF INSPECTION	DIVISION	BATTALION	STATION

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

COVER PAGE

FACILITY IDENTIFICATION					
BUSINESS NAME **Grant High School**				3	FACILITY ID # 1
SITE ADDRESS **13000 Oxnard Street**	103	CITY **Van Nuys**	104	ZIP CODE 105 **91401**	

The Consolidated Contingency Plan provides businesses a format to comply with the emergency planning requirements of the following three written hazardous materials emergency response plans required in California:

- Hazardous Materials Business Plan (HSC Chapter 6.95 Section 25504 (b) and 19 CCR Sections 2729-2732),
- Hazardous Waste Generator Contingency Plan (22 CCR Section 66264.52), and,
- Underground Storage Tank Emergency Response Plan and Monitoring Program (23 CCR Sections 2632 and 2641).

This format is designed to reduce duplication in the preparation and use of emergency response plans at the same facility, and to improve the coordination between facility response personnel and local, state and federal emergency responders during an emergency. Use the chart below to determine which sections of the Consolidated Contingency Plan need to be completed for your facility. If you are unsure as to which programs your facility is subject to, refer to the Business Activities Page.

PROGRAMS	SECTION(S) TO BE COMPLETED
Hazardous Materials Business Plan (HMBP)	Cover Page, Section I, and Site Map(s)
Hazardous Waste Generator (HWG)	Cover Page, Section I, and Site Map(s)
Underground Storage Tank (UST)	Cover Page, Sections I and II, and Site Map(s)
HMBP, HWG, UST	Cover Page, Sections I and II, and Site Map(s)

A copy of the plan shall be submitted to your local CUPA and at least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency. Describe below where a copy of your Contingency Plan, including the hazardous material inventories and Site Map(s), is located at your business:

Main Office

PLAN CERTIFICATION	
I certify under penalty of law that I have personally examined and I am familiar with the information provided by this plan and to the best of my knowledge the information is accurate, complete, and true.	
Printed Name of Owner/ Operator **Linda Ibach**	Title of Owner/Operator **Principal**
Signature of Owner/ Operator Linda Ibach	Date 3/4/2011

Received
APR 19 2011
HHMD - Data Ops

We appreciate the effort of local businesses in completing these plans and will assist in every possible way. If you have any questions, please contact your local CUPA or PA.

OFFICIAL USE ONLY			DATE RECEIVED		REVIEWED BY	
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

I. FACILITY IDENTIFICATION

BUSINESS NAME Grant High School	3		FACILITY ID # 1
SITE ADDRESS 13000 Oxnard Street	103	CITY Van Nuys 104	ZIP CODE 105 91401

II. EMERGENCY CONTACTS

PRIMARY		SECONDARY	
NAME Linda Ibach	123	NAME Evan R. Smith	128
TITLE Principal	124	TITLE Plant Manager	129
BUSINESS PHONE (818) 756-2704	125	BUSINESS PHONE (818) 756-2700	130
24 HOUR PHONE	126	24 HOUR PHONE	131
PAGER #	127	PAGER #	132

III. EMERGENCY RESPONSE PLANS AND PROCEDURES

A. Notifications

Your business is required by State Law to provide an immediate verbal report of any release or threatened release of a hazardous material to local fire emergency response personnel, this Unified Program Agency (CUPA or PA), and the Office of Emergency Services. If you have a release or threatened release of hazardous materials, immediately call:

FIRE/PARAMEDICS/POLICE/SHERIFF
PHONE: 911

AFTER the local emergency response personnel are notified, you shall then notify this Unified Program Agency and the Office of Emergency Services.

Local Unified Program Agency: (323) 890-4317
State Office of Emergency Service: (800) 852-7550 or (916) 262-1621
National Response Center: (800) 424-8802

Information to be provided during Notification:

- ◁ Your Name and the Telephone Number from where you are calling.
- ◁ Exact address of the release or threatened release.
- ◁ Date, time, cause, and type of incident (e.g. fire, air release, spill etc.)
- ◁ Material and quantity of the release, to the extent known.
- ◁ Current condition of the facility.
- ◁ Extent of injuries, if any.
- ◁ Possible hazards to public health and/ or the environment outside of the facility.

B. Emergency Medical Facility

List the local emergency medical facility that will be used by your business in the event of an accident or injury caused by a release or threatened release of hazardous material

HOSPITAL/CLINIC: U. S. Healthworks Medical Group	PHONE NO: (818) 893-4426
ADDRESS: 16300 Roscoe Blvd.	
CITY: Van Nuys	ZIP CODE: 91406

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
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SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

C. Private Emergency Response

DOES YOUR BUSINESS HAVE A PRIVATE ON-SITE EMERGENCY RESPONSE TEAM? ☐ Yes ☑ No

If yes, provide an attachment that describes what policies and procedures your business will follow to notify your on-site emergency response team in the event of a release or threatened release of hazardous materials.

CLEANUP/DISPOSAL CONTRACTOR

List the contractor that will provide cleanup services in the event of a release.

NAME OF CONTRACTOR:	PHONE NO:
Ecology Control Industries	**(310) 354-9999**
ADDRESS: **19500 Normandie Avenue**	
CITY: **Torrance, CA**	ZIP CODE: **90501**

D. Arrangements With Emergency Responders

If you have made special (i.e. contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements on the lines below:

All LAUSD schools are served by the School District Police Department. In addition, they are supported by the District's Office of Environmental Health and Safety that has an Emergency Response team that is trained and licensed to oversee hazardous material clean-up.

E. Evacuation Plan

1. The following alarm signal(s) will be used to begin evacuation of the facility *(check all which apply)*:

☑ Verbal ☑ Telephone *(including cellular)* ☑ Alarm System ☑ Public Address System ☑ Intercom
☐ Pagers ☑ Portable Radio ☐ Other *(specify)*:

2. ☑ Evacuation map is prominently displayed throughout the facility. **Yes. In the Safe School Plan**

3. ☑ Individual(s) responsible for coordinating evacuation including spreading the alarm and confirming the business has been evacuated: **All Administrative Staff, Certificated and Classified Staff - See Safe School Plan, Volume 2**

F. Earthquake Vulnerability

Identify areas of the facility where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Hazardous Waste/ Hazardous Materials Storage Areas ☐ Production Floor ☐ Process Lines
☐ Bench/ Lab ☐ Waste Treatment ☐ Other:

Identify mechanical systems where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Utilities ☑ Sprinkler Systems ☑ Cabinets ☑ Shelves
☑ Racks ☐ Pressure Vessels ☐ Gas Cylinders ☐ Tanks
☐ Process Piping ☑ Shutoff Valves ☐ Other:

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

G. Emergency Procedures

Briefly describe your business standard operating procedures in the event of a release or threatened release of hazardous materials:

1. **PREVENTION** (prevent the hazard) - Describe the kinds of hazards associated with the hazardous materials present at your facility. What actions would your business take to prevent these hazards from occurring? You may include a discussion of safety and storage procedures.

All Los Angeles City schools are limited to a small number of approved chemicals that are allowed on campus. Chemistry classes are encouraged to use "Micro Chemistry" to reduce the quantity of chemicals being used and stored on campus. Schools are not allowed to store or use any kinds of herbicides or pesticides for weed or pest management.

Gasoline drums shall be stored inside a locked flammable liquid storage room (i.e. gasoline bunker or block house) and shall be posted with 'No Smoking' and 'Flammable Liquid' signs outside the room. Gasoline drums shall be grounded with wire at all times. Diesel drums shall also be kept inside the flammable liquid storage room. 'No Smoking' and ' Combustible Liquid' signs shall be posted for diesel drums. Welding process shall not be conducted nearby this room. It is strongly suggested to store minimal quantity and to use secondary containment system for these drums.

Compressed gas cylinders shall be chained at all times. A compressed gas sign shall be posted on the cylinder(s) or by the cylinder(s). Waste oil and waste anti-freeze drums shall be kept inside the secondary containment system and affixed with completed hazardous waste labels

2. **MITIGATION** (reduce the hazard) - Describe what is done to lessen the harm or the damage to person(s), property, or the environment, and prevent what has occurred from getting worse or spreading. What is your immediate response to a leak, spill, fire, explosion, or airborne release at your business?

All Los Angeles City School personnel receive annual training on chemical safety. In addition, specific classes of employees receive additional training on chemical use and safety. At least once a year the schools are inspected by a School Safety Officer and chemical supplies are inspected. Outdated and unauthorized chemicals are removed.

3. **ABATEMENT** (remove the hazard) - Describe what you would do to stop and remove the hazard. How do you handle the complete process of stopping a release, cleaning up, and disposing of released materials at your facility?

All Los Angeles City Schools follow specific directions found in Safe School Plan, Volume 2 - Emergency Procedures. If a substance is released the students are evacuated to a safe zone, the release area is isolated and access is restricted. The School will call the Office of Environmental Health and Safety and their Emergency Reponse Team will work with local responders and district contractors to abate the condition.

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

IV. Emergency Equipment

22 CCR, Section 66265.52(e) [as referenced by Section 66262.34(a)(3)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

1. Equipment Category	2. Equipment Type	3. Location *	4. Description**
Personal Protective, Equipment, Safety Equipment, and First Aid Equipment	☐ Cartridge Respirators		
	☐ Chemical Monitoring Equipment *(describe)*		
	☑ Chemical Protective Aprons/Coats		Rubberized (Emergency Bin, Science labs)
	☑ Chemical Protective Boots		Rain boots
	☑ Chemical Protective Gloves		Latex (Emergency Bin, Science Labs)
	☐ Chemical Protective Suits *(describe)*		
	☑ Face Shields		Fullface (PM Office)
	☑ First Aid Kits/Stations *(describe)*		Standard (Emergency Bin, Nurse office)
	☑ Hard Hats		Plastic (Emergency Bin)
	☑ Plumbed Eye Wash Stations		Standard (Science clsrms)
	☑ Portable Eye Wash Kits *(i.e. bottle type)*		Eyesaline (Science clsrms)
	☐ Respirator Cartridges *(describe)*		
	☑ Safety Glasses/Splash Goggles		Standard vented plastic(PM Office, Science clsrms)
	☐ Safety Showers		
	☐ Self-Contained Breathing Apparatuses (SCBA)		
	☑ Other *(describe)*		Defibrillators (Nurse office, PA)
Fire Extinguishing Systems	☑ Automatic Fire Sptinkler Systems		Standard
	☑ Fire Alarm Boxes/Stations		Standard
	☑ Fire Extinguisher Systems *(describe)*		Standard
	☑ Other *(describe)*		Fire blankets (Science labs)
Spill Control Equipment and Decontamination Equipment	☑ Absorbents (describe)		Absorbent, chemical pads (PM office, Science Labs)
	☐ Berms/Dikes (describe)		
	☐ Decontamination Equipment (describe)		
	☐ Emergency Tanks (describe)		
	☑ Exhaust Hoods		Fume hood (Science labs, kitchen)
	☐ Gas Cylinders Leak Repair Kits (describe)		
	☐ Neutralizers (describe)		
	☐ Overpack Drums		
	☐ Sumps (describe)		
	☐ Other (describe)		
Communications and Alarm Systems	☐ Chemical Alarms (describe)		
	☑ Intercoms/ PA Systems		
	☑ Portable Radios		
	☑ Telephones		
	☐ Underground Tank Leak Detection Monitors		
	☐ Other (describe)		
Additional Equipment (Use Additional Pages if Needed.)			

**Use the Location Codes (LC) from the Site Map(s) prepared for your Contingency Plan.*

***Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2011** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Gasoline

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Gasoline** 207

EHS* ☐ Yes ☑ No 208

CAS# **8006-61-9** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
55 gallons	**110 gallons**	**NA**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR
b. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ r. OTHER
c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
11 226	**Xylene, mixed isomers** 27	☐ Yes ☑ No 228	**1330-20-7** 229
12 230	**Toluene** 31	☐ Yes ☑ No 232	**108-88-3** 233
5 234	**Benzene** 35	☐ Yes ☑ No 236	**71-43-2** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Diesel Fuel

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Diesel Fuel** 207

EHS* ☐ Yes ☑ No 208

CAS# **437986-25-09** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) **3** 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☑ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30 gallons	**55 gallons**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR
B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ r. OTHER
c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
100 226	**Diesel** 27	☐ Yes ☑ No 228	**437986-25-09** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Maintex Super Polymer 85

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Polymer Floor Finish** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
25 Gallons	**50 Gallons**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
<8 226	**Diethylene Glycol Ethyl Ether** 27	☐ Yes ☑ No 228	**111-90-0** 229
<1 230	**Tributoxyethyl Phosphate** 31	☐ Yes ☑ No 232	**78-51-3** 233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Latex Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Latex Paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **N/A** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	N/A	

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **0**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
16.5 226	**Titanium Dioxide** 27	☐ Yes ☑ No 228	**013463-67-7** 229
30.9 230	**Calcium Carbonate** 31	☐ Yes ☑ No 232	**000471-34-1** 233
0.1 234	**Silica, Crystalline** 35	☐ Yes ☑ No 236	**014808-60-7** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Solid Waste (Lead Debris)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Solid Waste (Lead Debris)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **40 cubic yards** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	181

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☑ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222
0

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Solid Waste (Lead Debris)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **H-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Liquid Waste (Clarifier Sludge)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Liquid Waste (Clarifier Sludge)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **2000 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
300	**600**	**600**	**135**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Liquid Waste (Clarifier Sludge)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☑ DELETE ☐ REVISE REPORTING YEAR **2011** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Flammable Liquid Waste (Lab Pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Flammable Liquid Waste (Lab Pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	551

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222
0

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ . RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE . OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Flammable liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☑ DELETE ☐ REVISE REPORTING YEAR **2011** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive liquid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive liquid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	551

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 0 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ B. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☐ d. STEEL DRUM
☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO
☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ i. CYLINDER
☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOE BIN ☐ p. TANK WAGON
j. RAIL CAR . OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☑ DELETE ☐ REVISE REPORTING YEAR **2011** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive solid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive solid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
0	0	0	551

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☑ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 0 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive solid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR 2011 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Water base paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **107-21-1** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30 gallons	**50 gallons**	**NA**	**NA**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 226	**Ethylene glycol** 27	☐ Yes ☑ No 228	**107-21-1** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS WASTE GENERATOR

PAGE OF

BUSINESS NAME: Grant High School		
FACILITY ID #	NO. OF EMPLOYEES: 33b 3	EPA ID # CAD982024739

I. TYPE OF GENERATOR

PLEASE CHECK THE FOLLOWING BOXES THAT APPLY

	RCRA GENERATOR (FEDERAL WASTE)	NON -RCRA GENERATOR (CALIFORNIA WASTE ONLY)
LARGE QUANTITY GENERATOR (>1000 KG HAZARDOUS WASTE PER MONTH)	☐	☑
SMALL QUANTITY GENERATOR (>100 KG BUT <1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (< 100 KG HAZARDOUS WASTE PER MONTH)	☐	☐

II. WASTE STREAM IDENTIFICATION

PLEASE COMPLETE THE TABLE BELOW. SEE INSTRUCTIONS FOR CODES AND EXPLANATION.

PROCESS	WASTE DESCRIPTION	WASTE ID	AMOUNT PER YEAR	DISPOSAL METHOD	STORAGE METHOD
Ceramics class	Liquid Waste (Clarifier Sludge)	135	750 gallons	Off-site treatme	Vacuum Truck

I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR NAME Linda Ibach	OWNER/OPERATOR TITLE Principal
OWNER/OPERATOR SIGNATURE Linda Ibach	DATE 3/4/2011

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY	
CUPA	PA	DISTRICT	INSPECTOR

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SITE MAP

A site plan and storage map must be included with your Contingency Plan. For relatively small facilities, these documents may be combined into one drawing. Since these drawings are intended for use in emergency response situations, larger facilities *(generally those with complex and/or multiple buildings)* should provide an overall site plan and a separate storage map for each building/storage area. A blank Facility Site Map has been provided on the reverse side of this page. You may complete that page or attach any other drawing(s) which contain(s) the information required below.

1. **Site Plan:** This drawing shall contain, at a minimum, the following information:

   a. Site Orientation (north, south, etc.);
   b. Approximate scale *(e.g. "1 inch = 10 feet".)*;
   c. Date the map was drawn;
   d. Locations of all buildings and other structures;
   e. Parking lots and internal roads;
   f. Hazardous materials loading/unloading areas;
   g. Outside hazardous materials storage or use areas;
   h. Storm drain and sanitary sewer drain inlets;
   i. Wells for monitoring of underground tank systems;
   j. Primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas;
   k. Adjacent property use;
   l. Locations and names of adjacent streets and alleys;
   m. Access and egress points and roads.

2. **Storage Map(s):** The map(s) shall contain, at a minimum, the following information:

   a. General purpose of each section/area within each building *(e.g. "Office Area", "Manufacturing Area", etc.)*;
   b. Location of each hazardous material/waste storage, dispensing, use, or handling area *(e.g. individual underground tanks, aboveground tanks, storage rooms, paint booths, etc.)*. Each area shall be identified by a unique location code number, letter, or name *(e.g. "1", "2", "3"; "A", "B", "C", etc.)*;
   c. Entrances to and exits from each building and hazardous material/waste room/area;
   d. Location of each utility emergency shut-off point *(i.e. gas, water, electric.)*;
   e. Location of each monitoring system control panel *(e.g. underground tank monitoring, toxic gas monitoring, etc.)*.

3. **Map Legend**

Item and/or Description	Location Code (LC)
Fuel Bunker	
Agricultural Fuel Bunker (diesel)	
Main water shut-off	
Main gas shut-off	
Main electrical shut-off	
Fire Department Connection	
Hydrant	
Paint storage bin	
Cleaner storage bin	
Fire splinker shut-off	
Emergency Bin	

City of LOS ANGELES
CALIFORNIA

DEPARTMENT OF FIRE
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Los Angeles Fire Department
Data Entry Instruction Form (DEIF)

Date:	7/14/2009	**New Business**	☐
Inspector's / Member:	SAMSON, JEAN C.	**Fire Station:**	102
Facility ID:	FA0023672	**HM Inspector No.:**	EE0000038
Business Name:		**UST Inspector No.:**	
LAUSD - ULYSSES S GRANT HIGH SCHOOL		**Occ. Jurisdiction:**	102

DATA ENTRY INSTRUCTION: *Check appropriate boxes*

- [X] **Changes on BP-1**
- [X] **Changes on BP-8**
- [ ] **Changes on Attached CUPA Form(s)**
- [ ] **UST Adandon Sheets**
- [ ] **UST Installation Sheets**
- [ ] **Enter Inventory On Attached CUPA Forms**
- [ ] **Inactive Business** *Journal Entry Should Be Included*

  Reason:
- [X] **Other Instruction:** *For Examples: Combine Business Under One BP Number*

  VA & DA W/ MAXIMO MENDEZ (818) 781-1400.

Data Entry Name: S Guerrero

Date: 8/17/10

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

BUSINESS INFORMATION

Printed on: 07/13/2009

INSTRUCTIONS : Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.

Business Number: FA0023672 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LAUSD - ULYSSES S GRANT HIGH SCHOOL

Address Where Business is Conducted : 13000 W OXNARD ST, VAN NUYS, CA 91401
Mailing Address : 333 S BEAUDRY AVE 20TH FL LOS ANGELES, CA 90017
Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

Number of Employees: 225
SIC Code : 8211
Dun & Bradstreet Number:

CONTACT	WORK #	24 HOUR #	PAGER #	OTHER #
Owner Name: LOS ANGELES UNIFIED SCHOOL DIS	(818) 781-1400			
On-Site Manager: linda ibach	(818) 781-1400			
Emergency Contact: ~~GRANT HIGH SCHOOL~~ EVAN SMITH	(818) 781-1400			
2nd Emergency Contact: -ULYSSES S GRANT HIGH SCHOOL	(818) 781-1400			

Mayra Mendez
Signature of Legal Business Owner/Authorized Representative **Title** **Date**

Business Plan has been reviewed and approved: _____

Office Use Only Insp. ID: 429 Date: 7/14/09 D/E ID: _____ Date: _____ TS: _____

City of LOS ANGELES
CALIFORNIA

LOS ANGELES
FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Hazardous Materials System
BP-8: Computer Listing of Inventory Submitted
Inspection Responsibility: VIU

Business No : FA0023672
First In : 102
Block # :

Printed on: 7/13/2009

Business Name	: LAUSD - ULYSSES S GRANT HIGH SCHOOL	**Business Address:**	13000 W OXNARD ST, VAN NUYS, CA 91401	**Next Inspection Date:**	05/05/2006
Business Owner	: LOS ANGELES UNIFIED SCHOOL DIS			**SIC Code**	: 8211
On-Site Manager	: linda ibach	**Phone #**	: (818) 781-1400	**# of Employees**	: 225
Emergency Contact	: GRANT HIGH SCHOOL	**Phone #**	: (818) 781-1400 Ext:	**Sq. Ft. of Facility**	: N/A
Alt Emergency Contact	: ULYSSES S GRANT HIGH SCHOOL	**Phone #**	: (818) 781-1400 Ext:	**Permit Date**	: 10/14/2008

LOCATION: **NFPA-704: N/A** **Products: 4**

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
DIESEL FUEL	MIXTURE	**55.00 GALLONS**	LIQUID	Fire
Hazard Class:		*Storage Type:*		
Ingredients	*Max %*	*CAS #*		

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
GASOLINE	MIXTURE	**220.00 GALLONS**	LIQUID	Fire
Hazard Class:		*Storage Type:*		
Ingredients	*Max %*	*CAS #*		

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
LATEX PAINT	MIXTURE	**110.00 GALLONS**	LIQUID	Chronic
Hazard Class:		*Storage Type:*		
Ingredients	*Max %*	*CAS #*		

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
POLYMER FLOOR FINISH	MIXTURE	**110.00 GALLONS**	LIQUID	Chronic
Hazard Class:		*Storage Type:*		
Ingredients	*Max %*	*CAS #*		

05/05/2006

My signature indicates that I have verified and agreed with the types and quantities of hazadous materials at this address

INSP SIG: _____ INSP. DATE: 7/13/09 BUS. REP. SIG: _____ DATE: _____ DE. SIG.: _____ DATE _____

Maximo Mendez

FA 23072

N

Los Angeles Unified School District

Office of Environmental Health and Safety

RAMON C. CORTINES
Superintendent of Schools

DAVID HOLMQUIST
Chief Operating Officer

YI HWA KIM
Interim Director

July 15, 2009

Los Angeles County Fire Department
Health Hazardous Materials Division
Data Operations Unit
5825 Rickenbacker Road
Commerce, CA 90040

SUBJECT: SUBMITTAL OF CONSOLIDATED CONTINGENCY PLAN FOR GRANT HIGH SCHOOL

The Los Angeles Unified School District would like to submit a Consolidated Contingency Plan for the following site:

Facility Name: Grant High School
Street Address: 13000 Oxnard Street
City, State Zip: Van Nuys, CA 91401

This plan is for the reporting year 2009. If you have any questions, please contact me at (213) 241-3199.

Sincerely,

Graciela Merchan

c. Soe Aung, Environmental Compliance Manager
Linda Ibach, Grant High School

Enclosure(s):

Received
JUL 21 2009
HHMD - Data Ops

333 S. Beaudry Avenue, Los Angeles, CA 90017 - MAILING ADDRESS: Box 512298, Los Angeles, CA 90051 - Telephone (213) 241-3199 - Fax (213) 241-6816

UNIFIED PROGRAM (UP) FORM
BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID #	FA0036801	1	EPA ID # (Hazardous Waste Only) CAD982024739	2

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) 3
Grant High School

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...		If Yes, please complete these pages of the UP FORM....
A. HAZARDOUS MATERIALS		
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☑ Yes ☐ No 4	→HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION →CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) →TRAINING PLAN
B. UNDERGROUND STORAGE TANKS (USTs)		
1. Own or operate underground storage tanks?	☐ Yes ☑ No 5	→UST FACILITY →UST TANK (one page per tank)
2. Intend to upgrade existing or install new USTs?	☐ Yes ☑ No 6	→UST FACILITY →UST TANK (one per tank) →UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank)
3. Need to report closing a UST?	☐ Yes ☑ No 7	→UST TANK (closure portion –one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		
Own or operate ASTs above these thresholds: —any tank capacity is greater than 660 gallons, or —the total capacity for the facility is greater than 1,320 gallons?	☐ Yes ☑ No 8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☑ Yes ☐ No 9	→EPA ID NUMBER – provide at the top of this page. →As a generator, answer YES to Item E2b and complete Waste Generator Form.
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ Yes ☑ No 10	→RECYCLABLE MATERIALS REPORT
3. Treat hazardous waste on site?	☐ Yes ☑ No 11	→ONSITE HAZARDOUS WASTE TREATMENT – FACILITY →ONSITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ Yes ☑ No 12	→CERTIFICATION OF FINANCIAL ASSURANCE
5. Consolidate hazardous waste generated at a remote site?	☐ Yes ☑ No 13	→REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ Yes ☑ No 14	→HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
E. LOCAL REQUIREMENTS		15
1. REGULATED SUBSTANCES		
Have Regulated Substances (RS) stored on site at greater than the threshold quantities established by the California Accidental Release Program (Cal ARP) ?	☐ Yes ☑ No 15a	In addition to Hazardous Materials requirements, complete: →Regulated Substance Registration →Risk Management Plan (when required)
2. OTHER REQUIREMENTS		
a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance?	☐ Yes ☑ No 15b	→Consult local CUPA or PA for added reporting requirements.
b. Required by a CUPA or PA to provide other information?	☑ Yes ☐ No 15c	→Waste Generator Form (LA County)

OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

UNIFIED PROGRAM (UP) FORM
BUSINESS OWNER/OPERATOR IDENTIFICATION

☐ NEW BUSINESS ☐ OUT OF BUSINESS ☑ REVISE/UPDATE (EFFECTIVE) PAGE OF

I. IDENTIFICATION

FACILITY ID# 1	BEGINNING DATE 100: 1/1/2009	ENDING DATE 101: 12/31/2009
BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3: Grant High School	BUSINESS PHONE 102: (818) 756-2700	
BUSINESS SITE ADDRESS 103: 13000 Oxnard Street		
CITY 104: Van Nuys	CA	ZIP CODE 105: 91401
DUN & BRADSTREET 106: N/A	SIC CODE (4 digit #) 107: 8211	
COUNTY 108: Los Angeles	UNINCORPORATED 133a.: No	
BUSINESS OPERATOR NAME 109: Los Angeles Unified School District	BUSINESS OPERATOR PHONE 110: (213) 241-3199	

II. BUSINESS OWNER

OWNER NAME 111: Los Angeles Unified School District	OWNER PHONE 112: (213) 241-3199	
OWNER MAILING ADDRESS 113: 333 S. Beaudry Avenue, 20th Floor		
CITY 114: Los Angeles	STATE 115: CA	ZIP CODE 116: 90017

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117: Soe Aung	CONTACT PHONE 118: (213) 241-3199	
CONTACT MAILING ADDRESS 119: 333 S. Beaudry Avenue, 20th Floor		
CITY 120: Los Angeles	STATE 121: CA	ZIP CODE 122: 90017

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123: Linda Ibach	NAME 128: Evan R. Smith
TITLE 124: Principal	TITLE 129: Plant Manager
BUSINESS PHONE 125: (818) 756-2704	BUSINESS PHONE 130: (818) 756-2700
24-HOUR PHONE 126:	24-HOUR PHONE 131:
PAGER # 127:	PAGER # 132:

V. ADDITIONAL LOCALLY COLLECTED INFORMATION 133

NUMBER OF EMPLOYEES 133b: 3	FEDERAL TAX IDENTIFICATION NUMBER 133c:

MAILING/ BILLING INFORMATION

ADDRESS 133d	CITY 133e	STATE 133f	ZIP CODE 133g
333 S. Beaudry Avenue, 20th Floor	Los Angeles	CA	90017

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE: [signature]	DATE 134: 7/8/2009	NAME OF DOCUMENT PREPARER 135: Graciela Merchan
NAME OF SIGNER (print) 136: Linda Ibach	TITLE OF SIGNER 137: Principal	

OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

INSPECTOR	DISTRICT	DATE OF INSPECTION	DIVISION	BATTALION	STATION

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Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

COVER PAGE

FACILITY IDENTIFICATION					
BUSINESS NAME **Grant High School**				3	FACILITY ID # 1
SITE ADDRESS **13000 Oxnard Street**	103	CITY **Van Nuys**	104	ZIP CODE **91401**	105

The Consolidated Contingency Plan provides businesses a format to comply with the emergency planning requirements of the following three written hazardous materials emergency response plans required in California:

- Hazardous Materials Business Plan (HSC Chapter 6.95 Section 25504 (b) and 19 CCR Sections 2729-2732),
- Hazardous Waste Generator Contingency Plan (22 CCR Section 66264.52), and,
- Underground Storage Tank Emergency Response Plan and Monitoring Program (23 CCR Sections 2632 and 2641).

This format is designed to reduce duplication in the preparation and use of emergency response plans at the same facility, and to improve the coordination between facility response personnel and local, state and federal emergency responders during an emergency. Use the chart below to determine which sections of the Consolidated Contingency Plan need to be completed for your facility. If you are unsure as to which programs your facility is subject to, refer to the Business Activities Page.

PROGRAMS	SECTION(S) TO BE COMPLETED
Hazardous Materials Business Plan (HMBP)	Cover Page, Section I, and Site Map(s)
Hazardous Waste Generator (HWG)	Cover Page, Section I, and Site Map(s)
Underground Storage Tank (UST)	Cover Page, Sections I and II, and Site Map(s)
HMBP, HWG, UST	Cover Page, Sections I and II, and Site Map(s)

A copy of the plan shall be submitted to your local CUPA and at least one copy of the plan shall be maintained at the facility for use in the event of an emergency and for inspection by the local agency. Describe below where a copy of your Contingency Plan, including the hazardous material inventories and Site Map(s), is located at your business:

Main Office

PLAN CERTIFICATION	
I certify under penalty of law that I have personally examined and I am familiar with the information provided by this plan and to the best of my knowledge the information is accurate, complete, and true.	
Printed Name of Owner/ Operator **Linda Ibach**	Title of Owner/Operator **Principal**
Signature of Owner/ Operator V. Ibach, A.P.	Date **7/8/2009**

We appreciate the effort of local businesses in completing these plans and will assist in every possible way. If you have any questions, please contact your local CUPA or PA.

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Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

I. FACILITY IDENTIFICATION

BUSINESS NAME **Grant High School**	3		FACILITY ID # 1
SITE ADDRESS **13000 Oxnard Street**	103	CITY **Van Nuys** 104	ZIP CODE 105 **91401**

II. EMERGENCY CONTACTS

PRIMARY		SECONDARY	
NAME **Linda Ibach**	123	NAME **Evan R. Smith**	128
TITLE **Principal**	124	TITLE **Plant Manager**	129
BUSINESS PHONE **(818) 756-2704**	125	BUSINESS PHONE **(818) 756-2700**	130
24-HOUR PHONE	126	24-HOUR PHONE	131
PAGER #	127	PAGER #	132

III. EMERGENCY RESPONSE PLANS AND PROCEDURES

A. Notifications

Your business is required by State Law to provide an immediate verbal report of any release or threatened release of a hazardous material to local fire emergency response personnel, this Unified Program Agency (CUPA or PA), and the Office of Emergency Services. If you have a release or threatened release of hazardous materials, immediately call:

FIRE/PARAMEDICS/POLICE/SHERIFF
PHONE: 911

AFTER the local emergency response personnel are notified, you shall then notify this Unified Program Agency and the Office of Emergency Services.

Local Unified Program Agency: (323) 890-4317
State Office of Emergency Service: (800) 852-7550 or (916) 262-1621
National Response Center: (800) 424-8802

Information to be provided during Notification:

- ◁ Your Name and the Telephone Number from where you are calling.
- ◁ Exact address of the release or threatened release.
- ◁ Date, time, cause, and type of incident (e.g. fire, air release, spill etc.)
- ◁ Material and quantity of the release, to the extent known.
- ◁ Current condition of the facility.
- ◁ Extent of injuries, if any.
- ◁ Possible hazards to public health and/ or the environment outside of the facility.

B. Emergency Medical Facility

List the local emergency medical facility that will be used by your business in the event of an accident or injury caused by a release or threatened release of hazardous material

HOSPITAL/CLINIC: **U. S. Healthworks Medical Group**	PHONE NO: **(818) 893-4426**
ADDRESS: **16300 Roscoe Blvd.**	
CITY: **Van Nuys**	ZIP CODE: **91406**

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Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

C. Private Emergency Response

DOES YOUR BUSINESS HAVE A PRIVATE ON-SITE EMERGENCY RESPONSE TEAM? ☐ Yes ☑ No

If yes, provide an attachment that describes what policies and procedures your business will follow to notify your on-site emergency response team in the event of a release or threatened release of hazardous materials.

CLEANUP/DISPOSAL CONTRACTOR

List the contractor that will provide cleanup services in the event of a release.

NAME OF CONTRACTOR:	PHONE NO:
Ecology Control Industries	**(310) 354-9999**
ADDRESS: **19500 Normandie Avenue**	
CITY: **Torrance, CA**	ZIP CODE: **90501**

D. Arrangements With Emergency Responders

If you have made special (i.e. contractual) arrangements with any police department, fire department, hospital, contractor, or State or local emergency response team to coordinate emergency services, describe those arrangements on the lines below:

All LAUSD schools are served by the School District Police Department. In addition, they are supported by the District's Office of Environmental Health and Safety that has an Emergency Response team that is trained and licensed to oversee hazardous material clean-up.

E. Evacuation Plan

1. The following alarm signal(s) will be used to begin evacuation of the facility *(check all which apply)*:

☑ Verbal ☑ Telephone *(including cellular)* ☑ Alarm System ☑ Public Address System ☑ Intercom
☐ Pagers ☑ Portable Radio ☐ Other *(specify)*:

2. ☑ Evacuation map is prominently displayed throughout the facility. **Yes. In the Safe School Plan**

3. ☑ Individual(s) responsible for coordinating evacuation including spreading the alarm and confirming the business has been evacuated: **All Administrative Staff, Certificated and Classified Staff - See Safe School Plan, Volume 2**

F. Earthquake Vulnerability

Identify areas of the facility where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Hazardous Waste/ Hazardous Materials Storage Areas ☐ Production Floor ☐ Process Lines
☐ Bench/ Lab ☐ Waste Treatment ☐ Other:

Identify mechanical systems where releases could occur or would require immediate inspection or isolation because of the vulnerability to earthquake related ground motion.

☑ Utilities ☑ Sprinkler Systems ☑ Cabinets ☑ Shelves
☑ Racks ☐ Pressure Vessels ☐ Gas Cylinders ☐ Tanks
☐ Process Piping ☑ Shutoff Valves ☐ Other:

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

G. Emergency Procedures

Briefly describe your business standard operating procedures in the event of a release or threatened release of hazardous materials:

1. **PREVENTION** (prevent the hazard) - Describe the kinds of hazards associated with the hazardous materials present at your facility. What actions would your business take to prevent these hazards from occurring? You may include a discussion of safety and storage procedures.

All Los Angeles City schools are limited to a small number of approved chemicals that are allowed on campus. Chemistry classes are encouraged to use "Micro Chemistry" to reduce the quantity of chemicals being used and stored on campus. Schools are not allowed to store or use any kinds of herbicides or pesticides for weed or pest management.

Gasoline drums shall be stored inside a locked flammable liquid storage room (i.e. gasoline bunker or block house) and shall be posted with 'No Smoking' and 'Flammable Liquid' signs outside the room. Gasoline drums shall be grounded with wire at all times. Diesel drums shall also be kept inside the flammable liquid storage room. 'No Smoking' and ' Combustible Liquid' signs shall be posted for diesel drums. Welding process shall not be conducted nearby this room. It is strongly suggested to store minimal quantity and to use secondary containment system for these drums.

Compressed gas cylinders shall be chained at all times. A compressed gas sign shall be posted on the cylinder(s) or by the cylinder(s). Waste oil and waste anti-freeze drums shall be kept inside the secondary containment system and affixed with completed hazardous waste labels

2. **MITIGATION** (reduce the hazard) - Describe what is done to lessen the harm or the damage to person(s), property, or the environment, and prevent what has occurred from getting worse or spreading. What is your immediate response to a leak, spill, fire, explosion, or airborne release at your business?

All Los Angeles City School personnel receive annual training on chemical safety. In addition, specific classes of employees receive additional training on chemical use and safety. At least once a year the schools are inspected by a School Safety Officer and chemical supplies are inspected. Outdated and unauthorized chemicals are removed.

3. **ABATEMENT** (remove the hazard) - Describe what you would do to stop and remove the hazard. How do you handle the complete process of stopping a release, cleaning up, and disposing of released materials at your facility?

All Los Angeles City Schools follow specific directions found in Safe School Plan, Volume 2 - Emergency Procedures. If a substance is released the students are evacuated to a safe zone, the release area is isolated and access is restricted. The School will call the Office of Environmental Health and Safety and their Emergency Reponse Team will work with local responders and district contractors to abate the condition.

SECTION I: BUSINESS PLAN AND CONTINGENCY PLAN

IV. Emergency Equipment

22 CCR, Section 66265.52(e) [as referenced by Section 66262.34(a)(3)] requires that emergency equipment at the facility be listed. Completion of the following Emergency Equipment Inventory Table meets this requirement.

1. Equipment Category	2. Equipment Type	3. Location *	4. Description**
Personal Protective, Equipment, Safety Equipment, and First Aid Equipment	☐ Cartridge Respirators		
	☐ Chemical Monitoring Equipment *(describe)*		
	☑ Chemical Protective Aprons/Coats		Rubberized (Emergency Bin, Science labs)
	☑ Chemical Protective Boots		Rain boots
	☑ Chemical Protective Gloves		Latex (Emergency Bin, Science Labs)
	☐ Chemical Protective Suits *(describe)*		
	☑ Face Shields		Fullface (PM Office)
	☑ First Aid Kits/Stations *(describe)*		Standard (Emergency Bin, Nurse office)
	☑ Hard Hats		Plastic (Emergency Bin)
	☑ Plumbed Eye Wash Stations		Standard (Science clsrms)
	☑ Portable Eye Wash Kits *(i.e. bottle type)*		Eyesaline (Science clsrms)
	☐ Respirator Cartridges *(describe)*		
	☑ Safety Glasses/Splash Goggles		Standard vented plastic(PM Office, Science clsrms)
	☐ Safety Showers		
	☐ Self-Contained Breathing Apparatuses (SCBA)		
	☑ Other *(describe)*		Defibrillators (Nurse office, PA)
Fire Extinguishing Systems	☑ Automatic Fire Sptinkler Systems		Standard
	☑ Fire Alarm Boxes/Stations		Standard
	☑ Fire Extinguisher Systems *(describe)*		Standard
	☑ Other *(describe)*		Fire blankets (Science labs)
Spill Control Equipment and Decontamination Equipment	☑ Absorbents (describe)		Absorbent, chemical pads (PM office, Science Labs)
	☐ Berms/Dikes (describe)		
	☐ Decontamination Equipment (describe)		
	☐ Emergency Tanks (describe)		
	☑ Exhaust Hoods		Fume hood (Science labs)
	☐ Gas Cylinders Leak Repair Kits (describe)		
	☐ Neutralizers (describe)		
	☐ Overpack Drums		
	☐ Sumps (describe)		
	☐ Other (describe)		
Communications and Alarm Systems	☐ Chemical Alarms (describe)		
	☑ Intercoms/ PA Systems		
	☑ Portable Radios		
	☑ Telephones		
	☐ Underground Tank Leak Detection Monitors		
	☐ Other (describe)		
Additional Equipment (Use Additional Pages if Needed.)			

**Use the Location Codes (LC) from the Site Map(s) prepared for your Contingency Plan.*

***Describe the equipment and its capabilities. If applicable, specify any testing/maintenance procedures/intervals. Attach additional pages, numbered appropriately, if needed.*

Unified Program (UP) Form
CONSOLIDATED CONTINGENCY PLAN

SITE MAP

A site plan and storage map must be included with your Contingency Plan. For relatively small facilities, these documents may be combined into one drawing. Since these drawings are intended for use in emergency response situations, larger facilities *(generally those with complex and/or multiple buildings)* should provide an overall site plan and a separate storage map for each building/storage area. A blank Facility Site Map has been provided on the reverse side of this page. You may complete that page or attach any other drawing(s) which contain(s) the information required below.

1. **Site Plan:** This drawing shall contain, at a minimum, the following information:

   a. Site Orientation (north, south, etc.);
   b. Approximate scale *(e.g. "1 inch = 10 feet".)*;
   c. Date the map was drawn;
   d. Locations of all buildings and other structures;
   e. Parking lots and internal roads;
   f. Hazardous materials loading/unloading areas;
   g. Outside hazardous materials storage or use areas;
   h. Storm drain and sanitary sewer drain inlets;
   i. Wells for monitoring of underground tank systems;
   j. Primary and alternate evacuation routes, emergency exits, and primary and alternate staging areas;
   k. Adjacent property use;
   l. Locations and names of adjacent streets and alleys;
   m. Access and egress points and roads.

2. **Storage Map(s):** The map(s) shall contain, at a minimum, the following information:

   a. General purpose of each section/area within each building *(e.g. "Office Area", "Manufacturing Area", etc.)*;
   b. Location of each hazardous material/waste storage, dispensing, use, or handling area *(e.g. individual underground tanks, aboveground tanks, storage rooms, paint booths, etc.)*. Each area shall be identified by a unique location code number, letter, or name *(e.g. "1", "2", "3"; "A", "B", "C", etc.)*;
   c. Entrances to and exits from each building and hazardous material/waste room/area;
   d. Location of each utility emergency shut-off point *(i.e. gas, water, electric.)*;
   e. Location of each monitoring system control panel *(e.g. underground tank monitoring, toxic gas monitoring, etc.)*.

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3. **Map Legend**

Item and/or Description	Location Code (LC)
Fuel Bunker	
Agricultural Fuel Bunker	
Main water shut-off	
Main gas shut-off	
Main electrical shut-off	
Fire Department Connection	
Hydrant	
Paint storage bin	
Cleaner storage bin	

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2009** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID # | MAP# (optional) 203 **See Page 18** | GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Gasoline

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Gasoline** 207

EHS* ☐ Yes ☑ No 208

CAS# **8006-61-9** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
55 gallons	**110 gallons**	**NA**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR
b. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ r. OTHER
c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
d. STEEL DRUM ☐ h. SILO ☐ l. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
11 226	**Xylene, mixed isomers** 27	☐ Yes ☑ No 228	**1330-20-7** 229
12 230	**Toluene** 31	☐ Yes ☑ No 232	**108-88-3** 233
5 234	**Benzene** 35	☐ Yes ☑ No 236	**71-43-2** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2009** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Diesel Fuel

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Diesel Fuel** 207

EHS* ☐ Yes ☑ No 208

CAS# **437986-25-09** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) **3** 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☑ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30 gallons	**55 gallons**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER 223
- a. ABOVE GROUND TANK
- B. UNDERGROUND TANK
- c. TANK INSIDE BUILDING
- d. STEEL DRUM
- ☐ e. PLASTIC/NONMETALLIC DRUM
- ☐ f. CAN
- ☐ g. CARBOY
- ☐ h. SILO
- ☐ i. FIBER DRUM
- ☐ j. BAG
- ☐ k. BOX
- ☐ i. CYLINDER
- ☐ m. GLASS BOTTLE
- ☐ n. PLASTIC BOTTLE
- ☐ o. TOE BIN
- ☐ p. TANK WAGON
- ☐ q. RAIL CAR
- ☐ r. OTHER

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
100 226	**Diesel** 27	☐ Yes ☑ No 228	**437986-25-09** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Maintex Super Polymer 85

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Polymer Floor Finish** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **25 Gallons**

MAXIMUM DAILY AMOUNT 218 **50 Gallons**

ANNUAL WASTE AMOUNT 219 **N/A**

STATE WASTE CODE 220 **N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **365**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
<8 226	**Diethylene Glycol Ethyl Ether** 27	☐ Yes ☑ No 228	**111-90-0** 229
<1 230	**Tributoxyethyl Phosphate** 31	☐ Yes ☑ No 232	**78-51-3** 233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

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Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Latex Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Latex Paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **N/A** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
50	**110**	**N/A**	

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ B. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM f. CAN g. CARBOY h. SILO
☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ i. CYLINDER
☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOE BIN ☐ p. TANK WAGON
☐ q. RAIL CAR ☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
16.5 226	**Titanium Dioxide** 27	☐ Yes ☑ No 228	**013463-67-7** 229
30.9 230	**Calcium Carbonate** 31	☐ Yes ☑ No 232	**000471-34-1** 233
0.1 234	**Silica, Crystalline** 35	☐ Yes ☑ No 236	**014808-60-7** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
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CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Solid Waste (Lead Debris)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Solid Waste (Lead Debris)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **40 cubic** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
60	**120**	**120**	**181**

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☑ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE . RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Solid Waste (Lead Debris)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

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Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **H-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Liquid Waste (Clarifier Sludge)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Liquid Waste (Clarifier Sludge)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **2000 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
300	**600**	**600**	**135**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE l. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE . OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Liquid Waste (Clarifier Sludge)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Flammable Liquid Waste (Lab Pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Flammable Liquid Waste (Lab Pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
5 gallons	**10 gallons**	**10 gallons**	**551**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Flammable liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

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I. FACILITY INFORMATION

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Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive solid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive solid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
5 pounds	**10 pounds**	**10 pounds**	**551**

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☑ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive solid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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UNIFIED PROGRAM (UP) FORM
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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-11**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive liquid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive liquid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217
5 gallons

MAXIMUM DAILY AMOUNT 218
10 gallons

ANNUAL WASTE AMOUNT 219
10 gallons

STATE WASTE CODE 220
551

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
☐ e. PLASTIC/NONMETALLIC DRUM
☐ f. CAN
☐ g. CARBOY
☐ h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
| . RAIL CAR
. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
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CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **G-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Water base paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **107-21-1** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30 gallons	**50 gallons**	**NA**	**NA**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
e. PLASTIC/NONMETALLIC DRUM
f. CAN
g. CARBOY
h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 226	**Ethylene glycol** 27	☐ Yes ☑ No 228	**107-21-1** 229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description pege for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS WASTE GENERATOR

PAGE OF

BUSINESS NAME: Grant High School		
FACILITY ID #	NO. OF EMPLOYEES: 33b 3	EPA ID # CAD982024739

I. TYPE OF GENERATOR

PLEASE CHECK THE FOLLOWING BOXES THAT APPLY

	RCRA GENERATOR (FEDERAL WASTE)	NON -RCRA GENERATOR (CALIFORNIA WASTE ONLY)
LARGE QUANTITY GENERATOR (>1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
SMALL QUANTITY GENERATOR (>100 KG BUT <1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (< 100 KG HAZARDOUS WASTE PER MONTH)	☑	☑

II. WASTE STREAM IDENTIFICATION

PLEASE COMPLETE THE TABLE BELOW. SEE INSTRUCTIONS FOR CODES AND EXPLANATION.

PROCESS	WASTE DESCRIPTION	WASTE ID	AMOUNT PER YEAR	DISPOSAL METHOD	STORAGE METHOD
Maintenance	**Fluorescent lamps**	**NA**	**320 pounds**	**Recycling**	
Science Class/La	**Corrosive solid waste (lab pack)**	**551/D005**	**10 pounds**	**Recycling**	
Science Class/La	**Flammable liquid waste (lab pack)**	**551/(D001,D002)**	**10 gallons**	**Recycling**	
Science Class/La	**Corrosive liquid waste (lab pack)**	**551/(D001, D002)**	**10 gallons**	**Recycling**	

I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR NAME Linda Ibach	OWNER/OPERATOR TITLE Principal
OWNER/OPERATOR SIGNATURE	DATE 7/8/2009

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY	
CUPA	PA	DISTRICT	INSPECTOR

UNIFIED PROGRAM (UP) FORM
HAZARDOUS WASTE GENERATOR

PAGE OF

BUSINESS NAME: Sepulveda Bus Garage		
FACILITY ID # F A 0 0 0 9 2 5 4	NO. OF EMPLOYEES: 33b 5	EPA ID # CAD981624802

I. TYPE OF GENERATOR

PLEASE CHECK THE FOLLOWING BOXES THAT APPLY

	RCRA GENERATOR (FEDERAL WASTE)	NON -RCRA GENERATOR (CALIFORNIA WASTE ONLY)
LARGE QUANTITY GENERATOR (>1000 KG HAZARDOUS WASTE PER MONTH)	☐	☑
SMALL QUANTITY GENERATOR (>100 KG BUT <1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (< 100 KG HAZARDOUS WASTE PER MONTH)	☐	☐

II. WASTE STREAM IDENTIFICATION

PLEASE COMPLETE THE TABLE BELOW. SEE INSTRUCTIONS FOR CODES AND EXPLANATION.

PROCESS	WASTE DESCRIPTION	WASTE ID	AMOUNT PER YEAR	DISPOSAL METHOD	STORAGE METHOD
Garage	Ethylene Glycol	343	285 gallons	recycle	
Garage	Gasoline fuel filters	352	200 pounds	recycle	
Garage	Solid Waste--Absorbent w/oil	352	1900 pounds	landfill	
Garage	Used motor oil	221	2000 gallons	recycle	
Garage	Liquid waste--Clarifier	135, 223	1500 gallons	treatment	

I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR NAME David Legg	OWNER/OPERATOR TITLE Garage Supervisor
OWNER/OPERATOR SIGNATURE	DATE 7/17/2009

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY	
CUPA	PA	DISTRICT	INSPECTOR

UNIFIED PROGRAM (UP) FORM
BUSINESS OWNER/OPERATOR IDENTIFICATION

☐ NEW BUSINESS ☐ OUT OF BUSINESS ☑ REVISE/UPDATE (EFFECTIVE) PAGE OF

I. IDENTIFICATION

FACILITY ID# 1	BEGINNING DATE 100: 1/1/2007	ENDING DATE 101: 12/31/2007	
BUSINESS NAME (Same as FACILITY NAME or DBA -- Doing Business As) 3: Grant High School		BUSINESS PHONE 102: (818) 394-2426	
BUSINESS SITE ADDRESS 103: 13000 Oxnard Street			
CITY 104: Van Nuys	CA	ZIP CODE 105: 91401	
DUN & BRADSTREET 106: N/A		SIC CODE (4 digit #) 107: 8211	
COUNTY 108: Los Angeles		UNINCORPORATED 133a: No	
BUSINESS OPERATOR NAME 109: Los Angeles Unified School District		BUSINESS OPERATOR PHONE 110: (213) 241-3199	

II. BUSINESS OWNER

OWNER NAME 111: Los Angeles Unified School District		OWNER PHONE 112: (213) 241-3199
OWNER MAILING ADDRESS 113: 333 S. Beaudry Avenue, 20th Floor		
CITY 114: Los Angeles	STATE 115: CA	ZIP CODE 116: 90017

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117: Soe Aung		CONTACT PHONE 118: (213) 241-3199
CONTACT MAILING ADDRESS 119: 333 S. Beaudry Avenue, 20th Floor		
CITY 120: Los Angeles	STATE 121: CA	ZIP CODE 122: 90017

IV. EMERGENCY CONTACTS

-PRIMARY-	-SECONDARY-
NAME 123: Linda Ibach	NAME 128: Evan R. Smith
TITLE 124: Principal	TITLE 129: Plant Manager
BUSINESS PHONE 125: (818) 756-2704	BUSINESS PHONE 130: (818) 756-2700
24-HOUR PHONE 126:	24-HOUR PHONE 131:
PAGER # 127:	PAGER # 132:

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V. ADDITIONAL LOCALLY COLLECTED INFORMATION

NUMBER OF EMPLOYEES 133b: 3	FEDERAL TAX IDENTIFICATION NUMBER 133c:

MAILING/ BILLING INFORMATION

ADDRESS 133d	CITY 133e	STATE 133f	ZIP CODE 133g
333 S. Beaudry Avenue, 20th Floor	Los Angeles	CA	90017

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE: Linda Ibach	DATE 134: 12/18/2007	NAME OF DOCUMENT PREPARER 135: Irish Isaac
NAME OF SIGNER (print) 136: Linda Ibach	TITLE OF SIGNER 137: Principal	

OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

INSPECTOR	DISTRICT	DATE OF INSPECTION	DIVISION	BATTALION	STATION
yy		7/14/09			

UNIFIED PROGRAM (UP) FORM
BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID #		1	EPA ID # (Hazardous Waste Only) CAD982024739	2

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As) 3

Grant High School

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page.

Does your facility...		If Yes, please complete these pages of the UP FORM....
A. HAZARDOUS MATERIALS		
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☑ Yes ☐ No 4	→HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION →CONSOLIDATED CONTINGENCY PLAN (Section I and Site Map(s)) →TRAINING PLAN
B. UNDERGROUND STORAGE TANKS (USTs)		
1. Own or operate underground storage tanks?	☐ Yes ☑ No 5	→UST FACILITY →UST TANK (one page per tank)
2. Intend to upgrade existing or install new USTs?	☐ Yes ☑ No 6	→UST FACILITY →UST TANK (one per tank) →UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank)
3. Need to report closing a UST?	☐ Yes ☑ No 7	→UST TANK (closure portion --one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		
Own or operate ASTs above these thresholds: ---any tank capacity is greater than 660 gallons, or ---the total capacity for the facility is greater than 1,320 gallons?	☐ Yes ☑ No 8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☑ Yes ☐ No 9	→EPA ID NUMBER – provide at the top of this page. →As a generator, answer YES to item E2b and complete Waste Generator Form.
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ Yes ☑ No 10	→RECYCLABLE MATERIALS REPORT
3. Treat hazardous waste on site?	☐ Yes ☑ No 11	→ONSITE HAZARDOUS WASTE TREATMENT – FACILITY →ONSITE HAZARDOUS WASTE TREATMENT – UNIT (one page per unit)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ Yes ☑ No 12	→CERTIFICATION OF FINANCIAL ASSURANCE
5. Consolidate hazardous waste generated at a remote site?	☐ Yes ☑ No 13	→REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ Yes ☑ No 14	→HAZARDOUS WASTE TANK CLOSURE CERTIFICATION
E. LOCAL REQUIREMENTS		15
1. REGULATED SUBSTANCES		
Have Regulated Substances (RS) stored on site at greater than the threshold quantities established by the California Accidental Release Program (Cal ARP) ?	☐ Yes ☑ No 15a	In addition to Hazardous Materials requirements, complete: →Regulated Substance Registration →Risk Management Plan (when required)
2. OTHER REQUIREMENTS		
a. Have hazardous materials stored on site at or above a threshold amount established by a CUPA's or PA's local ordinance?	☐ Yes ☑ No 15b	→Consult local CUPA or PA for added reporting requirements.
b. Required by a CUPA or PA to provide other information?	☑ Yes ☐ No 15c	→Waste Generator Form (LA County)

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OFFICIAL USE ONLY	UP Form	HW	HM	ARP	AST	UST	TP	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☑ ADD ☐ DELETE ☐ REVISE REPORTING YEAR 2007 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-10 or F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive liquid waste (lab pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive liquid waste (lab pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **35**

MAXIMUM DAILY AMOUNT 218 **70**

ANNUAL WASTE AMOUNT 219

STATE WASTE CODE 220 **551**

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☑ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **60**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
☐ e. PLASTIC/NONMETALLIC DRUM
☐ f. CAN
☐ g. CARBOY
☐ h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
RAIL CAR
OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

[x] ADD [ ] DELETE [ ] REVISE REPORTING YEAR 2007 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) [ ] Yes [x] No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-10 or F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Corrosive solid waste (lab pack)

TRADE SECRET [ ] Yes [x] No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Corrosive solid waste (lab pack)** 207

EHS* [ ] Yes [x] No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) [ ] a. PURE [ ] b. MIXTURE [x] c. WASTE 211

RADIOACTIVE [ ] Yes [x] No 12

CURIES 213

PHYSICAL STATE (Check one item only) [x] a. SOLID [ ] b. LIQUID [ ] c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) [ ] a. FIRE [ ] b. REACTIVE [ ] c. PRESSURE RELEASE [x] d. ACUTE HEALTH [ ] e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
38	75	75	551

UNITS* (Check one item only) [ ] a. GALLONS [ ] b. CUBIC FEET [x] c. POUNDS [ ] d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **60** 222

STORAGE CONTAINER 223
[ ] a. ABOVE GROUND TANK
[ ] B. UNDERGROUND TANK
[ ] c. TANK INSIDE BUILDING
[ ] d. STEEL DRUM
[ ] e. PLASTIC/NONMETALLIC DRUM
[ ] f. CAN
[ ] g. CARBOY
[ ] h. SILO
[ ] i. FIBER DRUM
[ ] j. BAG
[ ] k. BOX
[ ] i. CYLINDER
[ ] m. GLASS BOTTLE
[ ] n. PLASTIC BOTTLE
[ ] o. TOE BIN
[ ] p. TANK WAGON
[ ] q. RAIL CAR
[ ] r. OTHER

STORAGE PRESSURE [x] a.AMBIENT [ ] b. ABOVE AMBIENT [ ] c. BELOW AMBIENT 224

STORAGE TEMPERATURE [x] a.AMBIENT [ ] b. ABOVE AMBIENT [ ] c. BELOW AMBIENT [ ] c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Corrosive solid waste (lab pack)** 27	[ ] Yes [x] No 228	229
230	31	[ ] Yes [ ] No 232	233
234	35	[ ] Yes [ ] No 236	237
238	39	[ ] Yes [ ] No 240	241
242	43	[ ] Yes [ ] No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR 2007 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 See Page 18

GRID# (optional) 204 H-3 & G-6

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Gasoline

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME Gasoline 207

EHS* ☐ Yes ☑ No 208

CAS# 8006-61-9 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER 55 Gallons 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217: 200

MAXIMUM DAILY AMOUNT 218: 220

ANNUAL WASTE AMOUNT 219: 0

STATE WASTE CODE 220: N/A

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 365 222

STORAGE CONTAINER 223

a. ABOVE GROUND TANK	☐ e. PLASTIC/NONMETALLIC DRUM	☐ i. FIBER DRUM	☐ m. GLASS BOTTLE	☐ q. RAIL CAR
b. UNDERGROUND TANK	☐ f. CAN	☐ j. BAG	☐ n. PLASTIC BOTTLE	☐ r. OTHER
c. TANK INSIDE BUILDING	☐ g. CARBOY	☐ k. BOX	☐ o. TOE BIN	
d. STEEL DRUM	☐ h. SILO	☐ l. CYLINDER	☐ p. TANK WAGON	

STORAGE PRESSURE ☑ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
49.99 226	Miscellaneous Hydrocarbons 27	☐ Yes ☑ No 228	229
24.99 230	Xylene, mixed isomers 31	☐ Yes ☑ No 232	1330-20-7 233
24.99 234	Toluene 35	☐ Yes ☑ No 236	108-88-3 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR **2007** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **H-3**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Diesel Fuel

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Diesel Fuel** 207

EHS* ☐ Yes ☑ No 208

CAS# **68334-30-5** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☑ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☑ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
50	**55**	**N/A**	**N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER
a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR
B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ r. OTHER
c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	27	☐ Yes ☐ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY

DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☑ DELETE ☐ REVISE REPORTING YEAR **2007** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Maintex Super Polymer 85

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Polymer Floor Finish** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FFD HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217 **100 Gallons**

MAXIMUM DAILY AMOUNT 218 **110 Gallons**

ANNUAL WASTE AMOUNT 219 **N/A**

STATE WASTE CODE 220 **N/A**

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **365**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
. PLASTIC/NONMETALLIC DRUM
. CAN
I. CARBOY
i. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ i. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
☐ q. RAIL CAR
☐ r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
1 - 4 226	**Diethylene Glycol Ethyl Ether** 27	☐ Yes ☑ No 228	**111-90-0** 229
1 - 4 230	**Tributoxyethyl Phosphate** 31	☐ Yes ☑ No 232	**78-51-3** 233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☐ ADD ☐ DELETE ☑ REVISE REPORTING YEAR 2007 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Latex Paint

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Latex Paint** 207

EHS* ☐ Yes ☑ No 208

CAS# **N/A** 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☑ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **5 Gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
100	**110**	**N/A**	

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: **365** 222

STORAGE CONTAINER 223
- ☐ a. ABOVE GROUND TANK
- ☐ B. UNDERGROUND TANK
- ☐ c. TANK INSIDE BUILDING
- ☐ d. STEEL DRUM
- e. PLASTIC/NONMETALLIC DRUM
- f. CAN
- g. CARBOY
- h. SILO
- ☐ i. FIBER DRUM
- ☐ j. BAG
- ☐ k. BOX
- ☐ l. CYLINDER
- ☐ m. GLASS BOTTLE
- ☐ n. PLASTIC BOTTLE
- ☐ o. TOE BIN
- ☐ p. TANK WAGON
- ☐ q. RAIL CAR
- ☐ r. OTHER

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
16.5 226	**Titanium Dioxide** 27	☐ Yes ☑ No 228	**013463-67-7** 229
30.9 230	**Calcium Carbonate** 31	☐ Yes ☑ No 232	**000471-34-1** 233
0.1 234	**Silica, Crystalline** 35	☐ Yes ☑ No 236	**014808-60-7** 237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☑ ADD ☐ DELETE ☐ REVISE REPORTING YEAR **2007** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Solid Waste (Lead Debris)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Solid Waste (Lead Debris)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☑ a. SOLID ☐ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **40 cubic** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☑ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
60	120	120	181

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☑ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **60**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK
☐ B. UNDERGROUND TANK
☐ c. TANK INSIDE BUILDING
☐ d. STEEL DRUM
☐ e. PLASTIC/NONMETALLIC DRUM
☐ f. CAN
☐ g. CARBOY
☐ h. SILO
☐ i. FIBER DRUM
☐ j. BAG
☐ k. BOX
☐ l. CYLINDER
☐ m. GLASS BOTTLE
☐ n. PLASTIC BOTTLE
☐ o. TOE BIN
☐ p. TANK WAGON
q. RAIL CAR
r. OTHER
223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Solid Waste (Lead Debris)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA. Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☑ ADD ☐ DELETE ☐ REVISE REPORTING YEAR 2007 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 See Page 18

GRID# (optional) 204 H-6

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Liquid Waste (Clarifier Sludge)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME Liquid Waste (Clarifier Sludge) 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER 2000 gallons 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
300	600	600	135

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE: 60 222

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE q. RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE r. OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ i. CYLINDER ☐ p. TANK WAGON 223

STORAGE PRESSURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	Liquid Waste (Clarifier Sludge) 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

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OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY

DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS MATERIALS INVENTORY – CHEMICAL DESCRIPTION

(one page per material per building or area)

☑ ADD ☐ DELETE ☐ REVISE REPORTING YEAR **2007** 200 Page of

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As)
Grant High School

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL (EPCRA) ☐ Yes ☑ No 202

FACILITY ID #

MAP# (optional) 203 **See Page 18**

GRID# (optional) 204 **I-10 or F-6**

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Flammable Liquid Waste (Lab Pack)

TRADE SECRET ☐ Yes ☑ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME **Flammable Liquid Waste (Lab Pack)** 207

EHS* ☐ Yes ☑ No 208

CAS# 209

*If EHS is "Yes", all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211

RADIOACTIVE ☐ Yes ☑ No 12

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER **55 gallons** 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☑ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 217	MAXIMUM DAILY AMOUNT 218	ANNUAL WASTE AMOUNT 219	STATE WASTE CODE 220
30	60	60	551

UNITS* (Check one item only) ☐ a. GALLONS ☐ b. CUBIC FEET ☑ c. POUNDS ☐ d. TONS 221

* If EHS, amount must be in pounds.

DAYS ON SITE: 222 **60**

STORAGE CONTAINER
☐ a. ABOVE GROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ RAIL CAR
☐ B. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ OTHER
☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOE BIN
☐ d. STEEL DRUM ☐ h. SILO ☐ l. CYLINDER ☐ p. TANK WAGON
223

STORAGE PRESSURE ☑ a AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☑ a.AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ c. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (For mixture or waste only)	EHS	CAS #
226	**Flammable liquid waste (lab pack)** 27	☐ Yes ☑ No 228	229
230	31	☐ Yes ☐ No 232	233
234	35	☐ Yes ☐ No 236	237
238	39	☐ Yes ☐ No 240	241
242	43	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

ADDITIONAL LOCALLY COLLECTED INFORMATION 246

If EPCRA, Please Sign Here
(Facilities reporting Chemicals subject to EPCRA reporting thresholds must sign each Chemical Description page for each EPCRA reported chemical.)

OFFICIAL USE ONLY		DATE RECEIVED		REVIEWED BY		
DIV	BN	STA	OTHER	DISTRICT	CUPA	PA

UNIFIED PROGRAM (UP) FORM
HAZARDOUS WASTE GENERATOR

BUSINESS NAME: Grant High School		
FACILITY ID #	NO. OF EMPLOYEES: 33b 3	EPA ID # CAD982024739

I. TYPE OF GENERATOR

PLEASE CHECK THE FOLLOWING BOXES THAT APPLY

	RCRA GENERATOR (FEDERAL WASTE)	NON -RCRA GENERATOR (CALIFORNIA WASTE ONLY)
LARGE QUANTITY GENERATOR (>1000 KG HAZARDOUS WASTE PER MONTH)	☑	☑
SMALL QUANTITY GENERATOR (>100 KG BUT <1000 KG HAZARDOUS WASTE PER MONTH)	☐	☐
CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (< 100 KG HAZARDOUS WASTE PER MONTH)	☑	☐

II. WASTE STREAM IDENTIFICATION

PLEASE COMPLETE THE TABLE BELOW. SEE INSTRUCTIONS FOR CODES AND EXPLANATION.

PROCESS	WASTE DESCRIPTION	WASTE ID	AMOUNT PER YEAR	DISPOSAL METHOD	STORAGE METHOD
Maintenance	Solid waste (lead debris)	181/D008	120 tons	Landfill	
Ceramics	Liquid waste (Clarifier Sludge)	135	600 gallons	Off-site treatmen	
Science Class/La	Flammable liquid waste (lab pack)	551/(D001,D002)	60 lbs.	Recycling	
Science Class/La	Corrosive liquid waste (lab pack)	551/(D001, D002)	70 lbs.	Recycling	
Science Class/La	Corrosive solid waste (lab pack)	551/D005	75 lbs.	Recycling	

I certify that the information provided herein is true and accurate to the best of my knowledge.

OWNER/OPERATOR NAME Linda Ibach	OWNER/OPERATOR TITLE Principal
OWNER/OPERATOR SIGNATURE Linda Ibach	DATE 12/18/2007

OFFICIAL USE ONLY	DATE RECEIVED	REVIEWED BY	
CUPA	PA	DISTRICT	INSPECTOR

FIRE PREVENTION BUREAU TECHNICAL SECTION
200 NORTH MAIN STREET, RM 1780
LOS ANGELES, CA 90012

LOS ANGELES FIRE DEPARTMENT
Los Angeles Certified Unified Program Agency
(213) 978-3680

Los Angeles Fire Department
Data Entry Instruction Form (DEIF)

FOR INTERNAL USE ONLY

Date:	8/19/2015	**New Business:**	[ ]
Default Inspector:	TREJO, ANTHONY	**Fire Station/Census:**	**102**
Facility ID;	FA0023672	**Insp District:**	**414**
Facility Name:	**LAUSD - ULYSSES S GRANT HIGH SCHOOL**	**CERS ID:**	**10249009**
Site Address:	13000 OXNARD ST VAN NUYS, CA 91401		

[ ] VERIFIED FACILITY PHONE NUMBER
PHONE NO: (818) 756-2700

Account Info
Account Outstanding Balance:
Number of Outstanding Invoices: 0

[ ] VERIFIED MAILING ADDRESS
MAILING ADDRESS: 333 S BEAUDRY AVE 28TH FL
(INVOICES/PERMITS) LOS ANGELES, CA 90017

ACTIVE PROGRAMS:

PE	PE DESCRIPTION	UNITS
MAIN_SITE		
1001	PR0112680 | HW GEN, 0-5 EMPLOYEES	
4501	PR0017388 | HAZ MAT INVENTORY 4 TO 7 CHEMICALS	

[ ] VERIFIED OWNER INFO
OWNER NAME: LOS ANGELES UNIFIED SCHOOL DISTRICT
OWNER MAILING ADDRESS: 333 S BEAUDRY AVE, 28TH FL
LOS ANGELES, CA 90017
PHONE: (213) 241-3199

DATA ENTRY INSTRUCTION(S): Check Appropriate Boxes

[X] **Changes On BP 01**
[X] **Changes On BP 08**
[ ] **UST Abandon Sheets**
[ ] **UST Installation Sheets**
[ ] **Changes On Attached CUPA Form(s)**
[ ] **Enter Inventory on Attached CUPA Forms**

[ ] **Inactive Business** *Journal Entry should Be Included*

Reason:

[ ] **Other Instruction:** *For Examples: Combine Business Under One BP Number*

REMOVE DIESEL FROM INVENTORY

CITY OF LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3880

BUSINESS INFORMATION

Printed on: 8/19/2015

INSTRUCTIONS: Please complete and sign this form; your signature indicates that the information, as supplied, is accurate.
Business Number: FA0023672 This is your current business plan number. This number must appear on all business plan forms!
Business Name : LAUSD - ULYSSES S GRANT HIGH SCHOOL

Business Site Address: 13000 OXNARD ST
VAN NUYS, CA 91401

Mailing Address 333 S BEAUDRY AVE 28TH FL
LOS ANGELES, CA 90017

Other On-Site Addresses:

Briefly describe the nature of the hazardous materials operations:

 # OF EMPLOYEES: 3

CONTACT	WORK #	24 HOUR #	PAGER #
Owner Name: LOS ANGELES UNIFIED SCHOOL DISTRICT	(213) 241-3199	-	-
On-Site Manager: ~~linda ibach~~ Vicky DEL MONTE	(213)625-6631	-	-
Emergency Contact: JOE VOWLER	(213)625-6631		
2nd Emergency Contact: ULYSSES S GRANT HIGH SCHOOL	(818) 781-1400		

FACILITIES 9/16/15

Signature of Legal Business Owner/Authorized Representative	Title	Date

Business Plan has been reviewed and approved: _____

OFFICE USE ONLY **Insp. ID:** _____ **Date:** _____ **D/E ID:** _____ **Date:** _____ **TS:** _____

CITY OF LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3880

Business No : **FA0023672**
First In : 102
District # : 414

Hazardous Materials System
BP-8: Computer Listing of Inventory
SubmittedInspection Responsibility: VIU

Printed on: 8/19/2015

Business Name	: LAUSD - ULYSSES S GRANT HIGH SCHOOL	**Business Address**	: 13000 OXNARD ST VAN NUYS, CA 91401
Business Owner	: LOS ANGELES UNIFIED SCHOOL DISTRICT		
On-Site Manager	: linda ibach	**Phone #**	: (818) 781-1400
Emergency Contact	: EVAN SMITH	**Phone #**	: (818) 781-1400
Alt Emergency Contact	: ULYSSES S GRANT HIGH SCHOOL	**Phone #**	: (818) 781-1400
Next Inspection Date:	: 7/14/2012	**SIC Code**	: 8211
# of Employees	: 3	**Permit Date**	:

Total Chemicals: 6

LOCATION:

Chemicals at Location: 6

~~Chemical Name~~	~~HM Type~~	~~Max Quantity on Hand~~	~~State~~	~~Fed Haz Catg.~~
~~DIESEL FUEL~~	~~MIXTURE~~	~~55.00 GALLONS~~ ~~Container:| |~~	~~LIQUID~~	~~| FIRE |~~

~~Chemical Name~~	~~HM Type~~	~~Max Quantity on Hand~~	~~State~~	~~Fed Haz Catg.~~
~~DIESEL FUEL~~	~~MIXTURE~~	~~55.00 GALLONS~~ Container:| |	~~LIQUID~~	~~| FIRE | | IMMEDIATE HEALTH |~~

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
GASOLINEGASOLINE	MIXTURE	110.00 GALLONS Container:| |	LIQUID	| FIRE | | IMMEDIATE HEALTH |

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
LIQUID WASTE (CLARIFIER SLUDGE)	WASTE	600.00 GALLONS Container:|	LIQUID	| DELAYED HEALTH | | IMMEDIATE HEALTH |

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
POLYMER FLOOR FINISHMAINTEX SUPER POLYMER 85	MIXTURE	50.00 GALLONS Container:|	LIQUID	| DELAYED HEALTH |

Chemical Name	HM Type	Max Quantity on Hand	State	Fed Haz Catg.
WATER BASE PAINT	MIXTURE	50.00 GALLONS Container:|	LIQUID	| IMMEDIATE HEALTH |

Ingredients	% Weight	CAS #
ETHYLENE GLYCOL	1	107-21-1

My signature indicates that I have verified and agreed with the types and quantities of hazadous materials at this address.

[FA0023672] CHEMICAL COUNT: 6

INSP SIG: _____ INSP. DATE: 9/16/15

BUS. REP. SIG: _____ DATE: 9/16/15

Data Date: 8/19/2015

Los Angeles Fire Department - Official Inspection Report
HAZARDOUS MATERIALS BUSINESS PLAN (HMBP)
200 N. Main Street
Los Angeles, CA 90012
(213) 978-3680
www.lafd.org

INSPECTOR NAME:	DISTRICT:	FIRE STATION:	APN:	NOTICE#:	INSPECTION DATE:
ANTHONY TREJO	414	102	2341024900	DABROVGRB	09/16/2015

VATCHE TERZIAN
LAUSD - ULYSSES S GRANT HIGH SCHOOL
13000 OXNARD ST
VAN NUYS, CA 91401
(818) 756-2700

CERS ID: 10249009

FACILITY ID: FA0023672

NVO = No Violation Observed OUT = Out of Compliance NA = Not Applicable UD = Undetermined COS = Corrected On Site RPT = VDG =

Permit

1 Regulated facility obtained an annually renewable Unified Program Facility Permit
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

2 Unified Program Facility Permit posted in a conspicuous place on the premises
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

HMBP

HMBP Established & Submitted

3 Established and adequately implemented a business plan
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

4 Adequate completion and electronic submission of a business plan
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Facility Information

6 Adequate completion and electronic submission of Owner/Operator and Business Activities Forms
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Chemical Inventory

7 Adequate completion and electronic submission of hazardous materials inventory information
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Site Map

8 Adequate completion and electronic submission of annotated Site Map with all required content
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Emergency Response Plan

9 Adequate completion and electronic submission of Emergency Response Plan and procedures
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

10 Actual or threatened release reported to the CUPA and the California OES Warning Center
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Training

11 Training program submitted and adequate for the size of the business and materials handled
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

12 Initial and annual employee training completed, documented and records made available for 3 years
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Annual Certification - Updates

13 Annually reviewed and electronically certified that HMBP is complete, accurate and up-to-date
■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Los Angeles Fire Department - Official Inspection Report
HAZARDOUS MATERIALS BUSINESS PLAN (HMBP)
200 N. Main Street
Los Angeles, CA 90012
(213) 978-3680
www.lafd.org

BUSINESS:	FACILITY ID:	NOTICE#:	INSPECTION DATE:
LAUSD - ULYSSES S GRANT	FA0023672	DABROVGRB	09/16/2015

NVO = No Violation Observed OUT = Out of Compliance NA = Not Applicable UD = Undetermined COS = Corrected On Site RPT = VDG =

HMBP

14 HMBP updated within 30 days: chemical inventory, change of address, ownership, or business name

■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

15 Business plan electronically updated within 30 days of substantial changes in operations

■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

Property Owner Notification

16 Notified property owner in writing that bsuiness is subject to HMBP program and has complied

■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

17 Facility on leased site notified property owner of HMBP and if requested provided copy within 5 days

■ NVO ☐ OUT ☐ NA ☐ UD ☐ COS ☐ RPT

As Applicable

Agricultural Handlers

18 Agricultural handler exemption requirements are met when not submitting an emergency response plan

☐ NVO ☐ OUT ■ NA ☐ UD ☐ COS ☐ RPT

19 Agricultural handler exemption requirements are met when not submitting a training program

☐ NVO ☐ OUT ■ NA ☐ UD ☐ COS ☐ RPT

Remote Unstaffed Facility

20 Remote unstaffed facility exemption requirements are met when not submitting a business plan

☐ NVO ☐ OUT ■ NA ☐ UD ☐ COS ☐ RPT

Overall Inspection Comments

PERMISSION FOR INSPECTION GIVEN BY TERZIAN,VATCHE

This report shall serve as a “NOTICE TO COMPLY” for Minor Violations, and a “NOTICE OF VIOLATION” for Major violations. Formal enforcement and/or penalty assessment may be initiated for any violations noted, and for those not corrected in a timely manner. You are, hereby, ordered by the Fire Chief to correct the above noted violations **WITHIN 30 DAYS, OR FORTHWITH IF INDICATED IN THE CORRECTION SUMMARIES PROVIDED.**

Signatures

VATCHE TERZIAN
FACILITIES

Anthony Trejo
Fire Inspector I

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
LOS ANGELES, CA 90012
(213) 978-3680

Business No.: FA0023672

Business Name: LAUSD - ULYSSES S GRANT HIGH S

Business Mailing Address: 333 S BEAUDRY AVE 28TH
LOS ANGELES, CA 90017

Storage Address: 13000 OXNARD ST

Date:

Last Inspection Date:

Permit Date: 07/01/2013

RFI Request No:

RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
LIQUID WASTE (CLARIFIER SLUDGE)	c	600			b
-		0	0		
-					
WATER BASE PAINT	b	50			b
-		0	0		
-					
GASOLINE					
GASOLINE	b	110			b
-		0	0		
-					

City of LOS ANGELES
CALIFORNIA

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Storage Address: 13000 OXNARD ST

Date:

Last Inspection Date:

Permit Date: 07/01/2013

RFI Request No:

RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
MAINTEX SUPER POLYMER 85					
POLYMER FLOOR FINISH	b	50			b
-		0	0		
-					
-		0	0		
DIESEL FUEL(In-active) Inactivated on: 09/16/2015	b	55			b
-		0	0		
LATEX PAINT(In-active) Inactivated on: 03/04/2011	b	110			b

City of LOS ANGELES
CALIFORNIA

LOS ANGELES FIRE DEPARTMENT
200 NORTH MAIN STREET
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(213) 978-3680

Business No.: FA0023672

Business Name: LAUSD - ULYSSES S GRANT HIGH S

Business Mailing Address: 333 S BEAUDRY AVE 28TH
LOS ANGELES, CA 90017

Storage Address: 13000 OXNARD ST

Date:

Last Inspection Date: 07/14/2012
Permit Date: 07/01/2013

RFI Request No:

RFI Requestor Name:

Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
LIQUID WASTE (CLARIFIER SLUDGE)	c	600			b
- -		0	0		
WATER BASE PAINT	b	50			b
- -		0	0		
GASOLINE					
GASOLINE	b	110			b
- -		0	0		

City of LOS ANGELES
CALIFORNIA

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Chemical & Ingredients	Haz. Mat. Type	Max. Qnt on hand:	Yearly Qnt	Product Storage Type	Physical State
MAINTEX SUPER POLYMER 85					
POLYMER FLOOR FINISH	b	50			b
-		0	0		
-					
-		0	0		
DIESEL FUEL(In-active) Inactivated on: 09/16/2015	b	55			b
-		0	0		
LATEX PAINT(In-active) Inactivated on: 03/04/2011	b	110			b

Appendix J

Previous Environmental Documents

Converse Consultants
Over 50 Years of Dedication in Geotechnical Engineering and Environmental Sciences

September 24, 2008

Robert Mooneyham
Torres Construction Corp.
7330 N. Figueroa Street
Los Angeles, CA 90041

Subject: Export Soil Sampling Report
Grant High School
13000 Oxnard Street
North Hollywood, CA
Converse Project No. 08-41-280-01

Mr. Mooneyham:

We have received and reviewed the analytical results of the soil samples collected from the soil stockpile at Grant School, located at 13000 Oxnard Street, in North Hollywood, California (Site), in accordance with our Proposal dated September 3, 2008. The stockpiled soil was reported to be generated from excavation for an electrical project.

The volume of material stockpiled for export was reported to be between 300 and 500 cubic yards. Observations of the stockpile estimated approximately 430 cubic yards. On September 12, 2008, fifteen (15) discrete soil samples were collected; discrete sample locations are depicted on Figure 1. Five (5) composite samples and five (5) discrete sub-samples were analyzed in accordance with our Proposal dated September 3, 2008, which was prepared in accordance with the Los Angeles Unified School District (LAUSD) Specification 01440 – Environmental Import/Export Materials Testing (Specification 01440), dated January 31, 2006, and approved by the LAUSD –Office of Environmental Health and Safety (OEHS).

Soil for the analyses was collected in laboratory-supplied 4 oz. glass jars, and sub-samples were collected in accordance with EPA Method 5035 using encore samples from locations G-1A, G-2A, G-3A, G-4A, and G-5A. The sample containers were stored in a chilled container and transported to American Environmental Testing Laboratory (AETL) in Burbank under chain-of-custody documentation for analysis. Analyses for total petroleum hydrocarbons in the gasoline range (TPH-gas) and volatile organic compounds (VOCs) were performed from the discrete samples collected in the encore containers, and all other analyses were performed from the laboratory-prepared composite samples. In addition, a portion of the soil samples from each location were collected into sealable plastic bags and screened in the field for the presence of VOCs using a Photo-ionization Detector (PID). No VOCs were detected in any of the samples screened in the field.

222 East Huntington Drive, Suite 211, Monrovia, California 91016-3500
Telephone: (626) 930-1200 ♦ Facsimile: (626) 930-1212 ♦ e-mail: converse@converseconsultants.com

Analytical results of the stockpile samples have been compared to hazardous waste disposal threshold criteria, State, Federal and Department of Toxic Substance Control (DTSC) health-risk based screening levels, and to criteria presented in LAUSD Specification 01440.

The laboratory analytical results are presented on Tables 1 and 2, and summarized as follows:

- Metals – All reported metals are below their respective Total Threshold Limit Concentrations (TTLC), and with the exception of arsenic, none of the concentrations exceeded their respective State and Federal health-risk based screening levels for use in residential soil. The maximum reported arsenic concentration of 3.63 milligrams per kilogram (mg/kg), in composite sample G-1, exceeded the United States Environmental Protection Agency (U.S. EPA) Preliminary Remediation Goal (PRG) for residential soil of 0.062 mg/kg, but is below the screening level set forth in Specification 01440 of 6.0 mg/kg. The maximum reported lead concentration of 14.0 mg/kg, in composite sample G-2, is below the DTSC screening level of 255 mg/kg.
- Total Petroleum Hydrocarbons (TPH) in the gasoline and diesel ranges were not reported in the soil samples. However, TPH was reported in the heavy hydrocarbon (C23-C40) range with a maximum concentration of 18.6 mg/kg in composite sample G-3. The concentrations of TPH are well below the California Regional Water Quality Control Board (CRWQCB) Maximum Soil Screening Level (MSSL) of 1,000 mg/kg for heavy range hydrocarbons. The concentrations are also below the acceptance criteria level specified in LAUSD Specification 01440 of 1,000 mg/kg for diesel and heavy range hydrocarbons.
- One organochlorine pesticide (OCP) was reported in the soil samples. Chlordane was reported with a maximum concentration of 5.19 micrograms per kilogram (ug/kg) in composite sample G-5. All OCP concentrations are below their respective State and Federal health-risk based screening levels for use in residential soil, as well as their respective TTLC values.
- Organophosphorous Pesticides (OPPs) were not reported in the soil samples.
- Chlorinated Herbicides (CHs) were not reported in the soil samples.
- Polychlorinated Bi-phenyls (PCBs) were not reported in the soil samples.
- Volatile Organic Compounds (VOCs) were not reported in the soil samples.
- Semi-volatile Organic Compounds (SVOCs) were not reported in the soil samples.

Results of the sample analyses indicate that all constituents are below their respective TTLC concentrations, and therefore the soil is considered non-hazardous for disposal purposes.

Based on LAUSD Specification 01440 the soil is not acceptable for reuse onsite or at other LAUSD school sites due to the presence of OCPs at any concentration. It is recommended that the soil be removed from the Site and handled as non-hazardous waste. The acceptance criteria for OCP, TPH, and metal concentrations vary between disposal facilities, so the analytical data should be presented to potential disposal facilities for acceptance.

This report has been prepared for the exclusive use Torres Construction Corporation in accordance with the terms and conditions under which these services were provided. Any reliance on this report by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

Converse Consultants is not responsible or liable for the accuracy or completeness of available information provided by others. Site exploration identifies actual conditions only at those points where samples are taken, when they are taken.

Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall conditions. Actual conditions in the areas not sampled may differ from the predictions. This report should not be regarded as a guarantee that no further contamination, beyond that which was detected in our investigation, is present beneath the property. In the event that changes to the property occur, or additional, relevant information about the property is brought to our attention, the recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the recommendations of this report are modified in writing.

We appreciate this opportunity to be of service. Please feel free to contact Michael Van Fleet at (626) 930-1267, should you have any questions.

Sincerely,

CONVERSE CONSULTANTS

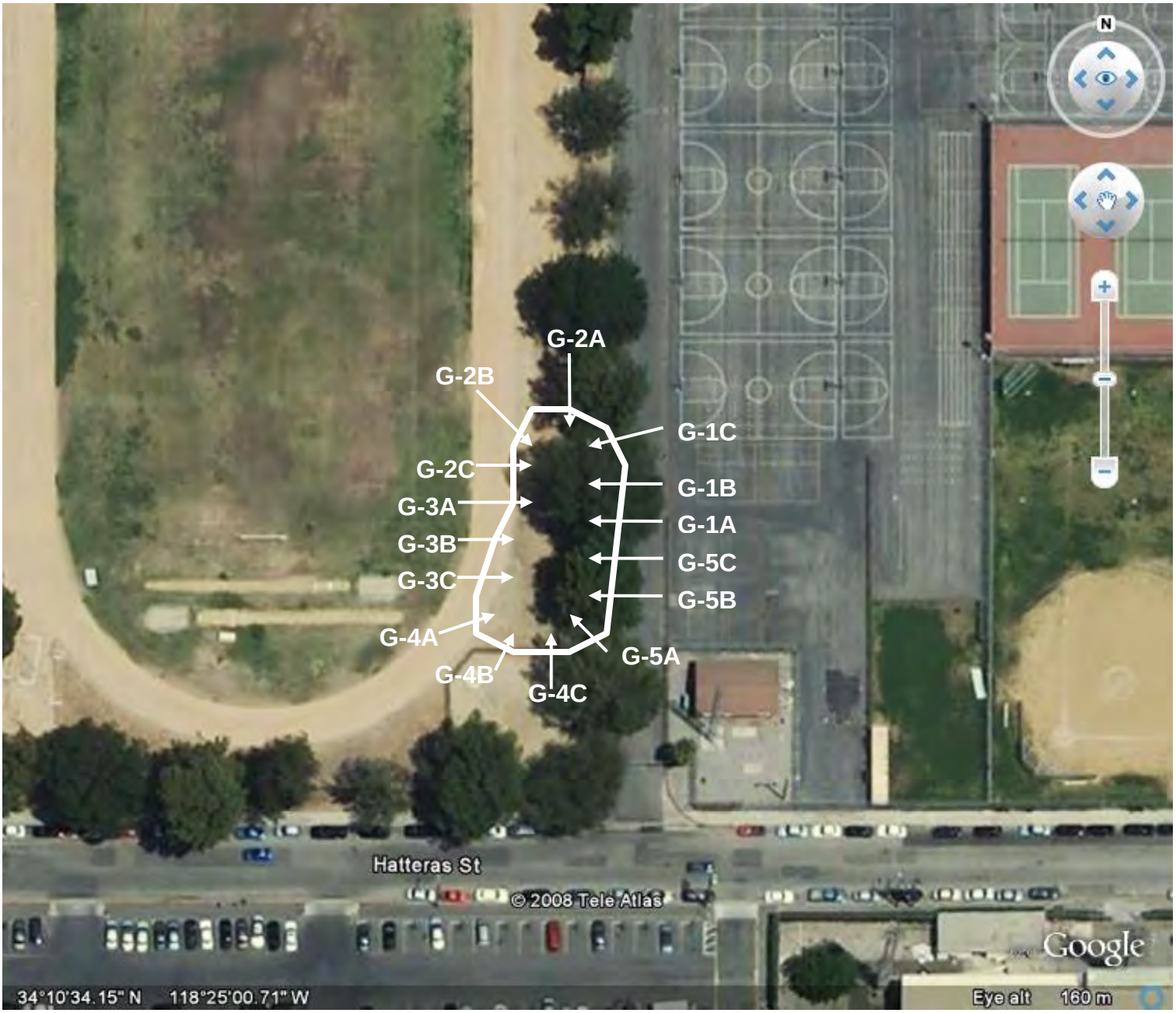
Amanda Liu
Staff Environmental Scientist

Michael Van Fleet, PG
Senior Geologist

PROFESSIONAL GEOLOGIST
MICHAEL A. VAN FLEET
No. 7839
STATE OF CALIFORNIA

Attch: Figure 1 – Stockpile Location Map
Table 1 – Summary of Analytical Results for Metals
Table 2 – Summary of Non-Metals Analytical Results
Final Laboratory Report

Dist: 1/Addressee via electronic mail



Stockpile Location

Client: Torres Construction Corp.

Project No:

Grant High School
13000 Oxnard Street
North Hollywood, California

08-41-280-01

Converse Consultants

FIGURE 1

Table 1
Summary Analytical Results for Metal Constituents
Grant High School
North Hollywood, CA

Sample ID	G-1	G-2	G-3	G-4	G-5	Guidance Levels				Regulatory Levels		
Sample Date	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	CHHSL-r	CHHSL-i	PRG-r	PRG-i	TTLC	STLC	TCLP
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L
Antimony	ND	ND	ND	ND	ND	30	380	31	410	500	15	--
Arsenic*	**3.63**	**2.74**	**2.60**	**1.89**	**1.83**	0.07	0.24	0.062	0.25	500	5	5
Barium	**89.0**	**98.0**	**118**	**123**	**106**	5,200	63,000	5,400	67,000	10,000	100	100
Beryllium	ND	ND	ND	ND	ND	150	1,700	150	1,900	75	0.75	--
Cadmium	**1.75J**	ND	ND	ND	ND	1.7	7.5	37	450	100	1	1
Chromium (Total)	**9.50**	**11.3**	**13.0**	**12.7**	**11.5**	100,000	100,000	210	450	2,500	5	5
Chromium (VI)**	ND	ND	ND	ND	ND	17	37	30	64	500	5	--
Cobalt	**5.85**	**6.80**	**8.80**	**9.05**	**8.15**	660	3,200	900	1,900	8,000	80	--
Copper	**18.4**	**14.0**	**18.6**	**16.9**	**15.6**	3,000	38,000	3,100	41,000	2,500	25	--
Lead	**11.4**	**14.0**	**9.90**	**7.30**	**6.10**	150	3,500	150	800	1,000	5	5
Mercury^	ND	ND	ND	ND	ND	18	180	23	310	20	0.2	0
Molybdenum	ND	ND	ND	ND	ND	380	4,800	390	5,100	3,500	350	--
Nickel	**7.05**	**7.25**	**9.05**	**9.10**	**8.45**	1,600	16,000	1,600	20,000	2,000	20	--
Selenium	ND	ND	ND	ND	ND	380	4,800	390	5,100	100	1	1
Silver	ND	ND	ND	ND	ND	380	4,800	390	5,100	500	5	5
Thallium*	ND	ND	ND	ND	ND	5	63	5	67	700	7	--
Vanadium	**24.2**	**26.4**	**27.4**	**27.9**	**26.3**	530	6,700	78	1,000	2,400	24	--
Zinc	**66.5**	**72.5**	**62.0**	**54.0**	**50.5**	23,000	100,000	23,000	100,000	5,000	250	--

Samples analyzed in accordance with EPA Method 6010
* = Reported concentration analyzed in accordance with EPA Method 6020
** = Reported concentration analyzed in accordance with EPA Method 7199
^ = Reported concentration analyzed in accordance with EPA Method 7471
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Practical Quantification Limits (PQLs)
j = between PQL and MDL

CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
PRG-r = Preliminary Remediation Goals for Residential Soils
PRG-i = Preliminary Remediation Goals for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

Table 2
Summary Analytical Results for Non-Metal Constituents
Grant High School
North Hollywood, CA

Constituent		Total Petroleum Hydrocarbons (TPH)			OCPs		OPPs	CHs	PCBs	VOCs	SVOCs
		C4-C12 (Gasoline) (mg/kg)	C13-C22 (Diesel) (mg/kg)	C23-C40 (Motor Oil) (mg/kg)	Chlordane (ug/kg)	All Other (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (mg/kg)
Sample ID	**Date**										
G-1/G-1A	9/12/2008	ND	ND	**7.55J**	ND	ND	ND	ND	ND	ND	ND
G-2/G-2A	9/12/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
G-3/G-3A	9/12/2008	ND	ND	**18.6**	ND	ND	ND	ND	ND	ND	ND
G-4/G-4A	9/12/2008	ND	ND	**16.1**	**3.41J**	ND	ND	ND	ND	ND	ND
G-5/G-5A	9/12/2008	ND	ND	**9.46J**	**5.19J**	ND	ND	ND	ND	ND	ND
Guidance Levels											
PRG-r		NA	NA	NA	**1,600**	NA	NA	NA	NA	NA	NA
PRG-i		NA	NA	NA	**6,500**	NA	NA	NA	NA	NA	NA
CHHSL-r		NA	NA	NA	**430**	NA	NA	NA	NA	NA	NA
CHHSL-i		NA	NA	NA	**1,700**	NA	NA	NA	NA	NA	NA
Regulatory Levels											
TTLC (ug/kg)		NA	NA	NA	**2,500**	NA	NA	NA	NA	NA	NA
STLC (ug/L)		NA	NA	NA	**250**	NA	NA	NA	NA	NA	NA
TCLP (ug/L)		NA	NA	NA	**30**	NA	NA	NA	NA	NA	NA
MSSLs (mg/kg)		**100***	**100***	**1000***	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected at or above PQL
NA = Not Applicable
PQL = Practical Quantitation Limit
MDL = Method Detection Limit
mg/kg = Milligrams per Kilograms
ug/kg = Micrograms per Kilograms
OCPs = Organochlorine Pesticides
OPPs = Organophosphorus Pesticides
CHs = Chlorinated Herbicides
PCBs = Polychlorinated Biphynels
j = between PQL and MDL

VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
PRG-r = Preliminary Remediation Goals for Residential Soils
PRG-i = Preliminary Remediation Goals for Industrial Soils
CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
MSSLs = Maximum Soil Screening Levels
* = MSSL Values for soil less than 20 feet above groundwater

Converse Consultants
Over 50 Years of Dedication in Geotechnical Engineering and Environmental Sciences

August 10, 2010

Mr. Tony Fata
Fata Construction and Development
19135 Vintage Woods Drive
Riverside, CA 92508

Subject: **Export Soil Sampling Report**
Grant High School
13000 Oxnard Street
Van Nuys, CA 91401
Converse Project No. 10-41-198-01

Mr. Fata:

We have received and reviewed the analytical results of the soil samples collected from the soil stockpiles at Grant High School, located at 13000 Oxnard Street, in Van Nuys, California (Site). The soil samples were collected from the stockpiles in general accordance with our Sampling Management Plan (SMP)/Proposal dated June 24, 2010, which was prepared in accordance with the Los Angeles Unified School District (LAUSD) Specification Section 01440 – Environmental Import/Export Materials Testing (Section 01440), revision dated August 1, 2008, and approved by the LAUSD – Office of Environmental Health and Safety (OEHS).

The volume of stockpiled soil material to be exported from the Site was reported to be approximately 350 cubic yards; observations of the two stockpiles confirmed this estimate to be accurate. On August 4, 2010, 12 discrete soil samples were collected from various depths (top, middle and bottom) at evenly-spaced locations at the stockpiles using a hand shovel at locations depicted on Figure 1 – Stockpile Locations. Soil for the analyses was collected in laboratory-supplied 4 oz. glass jars, and sub-samples were collected in accordance with EPA Method 5035 using EnCore sample containers from locations G-1A, G-2A, G-3A, and G-4A. The sample containers were stored in a chilled container and transported to American Environmental Testing Laboratory (AETL) in Burbank under chain-of-custody documentation for analysis.

The laboratory was requested to prepare four (4) composite samples from the set of 12 discrete samples. Four (4) composite samples and four (4) discrete sub-samples were analyzed in accordance with our SMP/Proposal. Analyses for Total Petroleum Hydrocarbons in the gasoline range (TPH-gas) and Volatile Organic Compounds (VOCs) were performed from the discrete samples collected in the EnCore sample containers, and all other analyses were performed from the laboratory-prepared composite sample. In addition, a portion of the soil samples from each location were collected into sealable plastic bags and screened in the field for the presence of VOCs

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using a Photo-ionization Detector (PID). No VOCs were detected in any of the samples screened in the field.

Analytical results of the stockpile samples have been compared to hazardous waste disposal threshold criteria, Department of Toxic Substance Control (DTSC) screening levels, and to criteria presented in LAUSD Section 01440.

The laboratory analytical results are presented on Tables 1 and 2, and summarized as follows:

- Metals – All reported metals are below their respective Total Threshold Limit Concentration (TTLC) values. The maximum reported arsenic concentration of 6.30 milligrams per kilogram (mg/kg) is below the DTSC screening level of 12.0 mg/kg. The maximum reported lead concentration of 20.1 mg/kg is below the DTSC screening level of 255 mg/kg for lead.
- Total Petroleum Hydrocarbons (TPH) was not reported in the gasoline (C4-C12) range. However, TPH in the diesel (C13-C22) and heavy hydrocarbon (C23-C40) ranges was reported with maximum concentrations of 8.08 and 17.7 mg/kg, respectively. These concentrations are less than the California Regional Water Quality Control Board (CRWQCB) Maximum Soil Screening Levels (MSSLs) of 100 mg/kg for diesel range hydrocarbons and the 1,000 mg/kg for heavy range hydrocarbons. The combined maximum diesel and heavy range hydrocarbon concentration (25.8 mg/kg) is also below the acceptance criteria level specified in LAUSD Section 01440 of 1,000 mg/kg for diesel and heavy range hydrocarbons.
- Six Organochlorine Pesticides (OCPs) were reported in the soil samples. Total chlordane, DDD, DDE, DDT, dieldrin, and heptachlor epoxide were reported with maximum concentrations of 78.70, 6.45, 57.5, 14.5, 67.80, and 3.81 micrograms per kilogram (µg/kg), respectively, which are below their respective TTLC values. The maximum level of dieldrin exceeds both the health-risk based Regional Screening Level (RSL) and California Human Health Screening Level (CHHSL) for residential use, which are 30 and 35 ug/kg, respectively.
- Organophosphorous Pesticides (OPPs) were reported as non-detect (ND) in the soil samples.
- Chlorinated Herbicides (CHs) were reported as ND in the soil samples.
- Polychlorinated bi-phenyls (PCBs) were reported as ND in the soil samples.
- Volatile Organic Compounds (VOCs) were reported as ND in the soil samples.
- Semi-Volatile Organic Compounds (SVOCs) were reported as ND in the soil samples.

Results of the sample analyses indicate that all constituents are below their respective TTLC concentrations and therefore the soil is not considered to be hazardous waste.

Based on LAUSD Section 01440, the soil may not be acceptable for use onsite or at other LAUSD school sites due to the detections of OCPs at any concentration unless further evaluation is completed that may include a health risk evaluation. If the soil is to be removed from the Site, the analytical data should be presented for acceptance to the location that will take the soil because the acceptance criteria for metals, TPH, and OCP concentrations vary.

This report has been prepared for the exclusive use of Fata Construction and Development in accordance with the terms and conditions under which these services were provided. Any reliance on this report by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

Converse Consultants is not responsible or liable for the accuracy or completeness of available information provided by others. Site exploration identifies actual conditions only at those points where samples are taken, when they are taken.

Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall conditions. Actual conditions in the areas not sampled may differ from the predictions. This report should not be regarded as a guarantee that no further contamination, beyond that which was detected in our investigation, is present beneath the property. In the event that changes to the property occur, or additional, relevant information about the property is brought to our attention, the recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the recommendations of this report are modified in writing.

Attached are summary tables for all reported constituents and the final laboratory analytical report for the samples.

We appreciate this opportunity to be of service. Please feel free to contact Michael Van Fleet at (626) 930-1267, should you have any questions.

Sincerely,

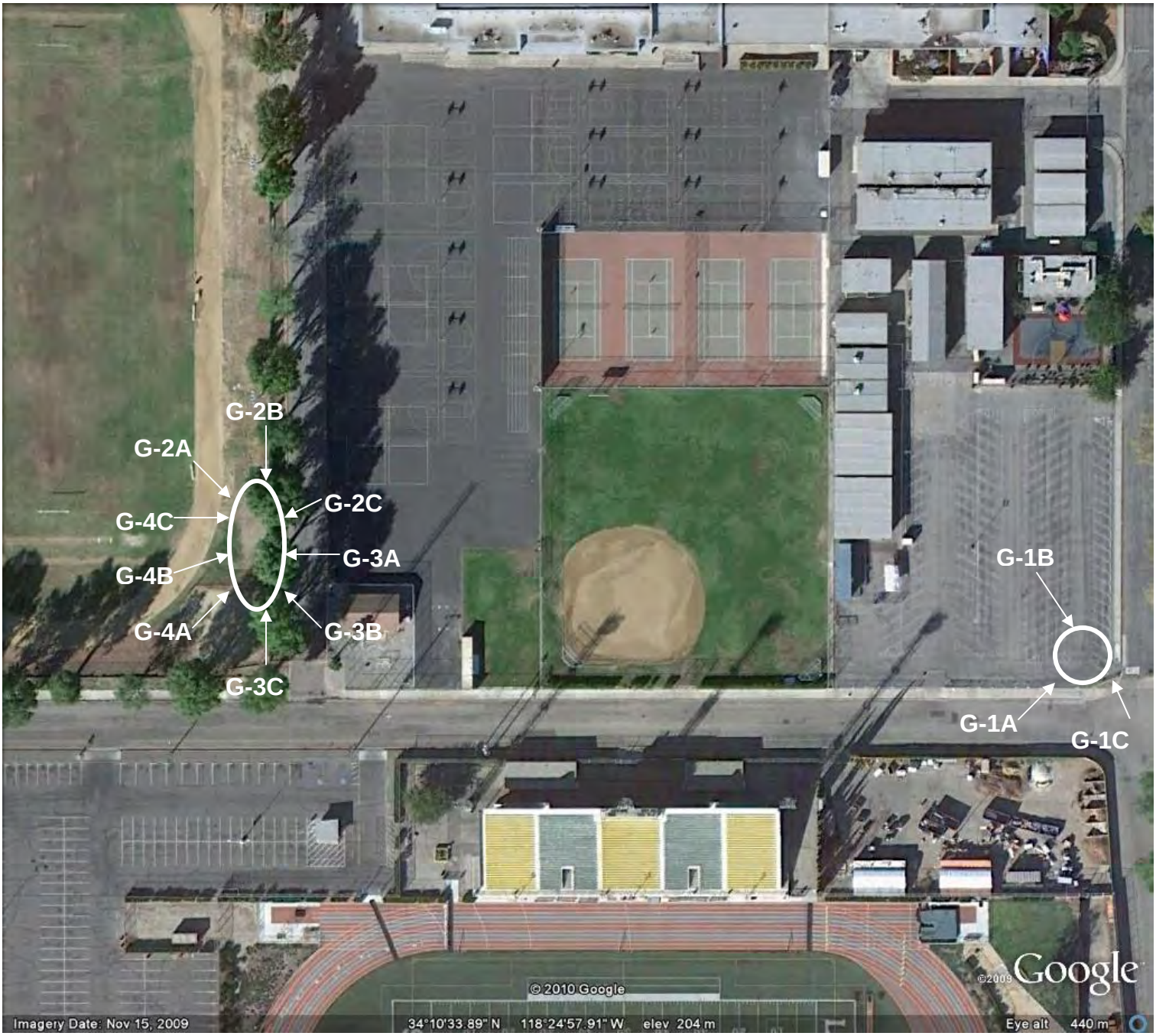
CONVERSE CONSULTANTS

PROFESSIONAL GEOLOGIST
MICHAEL A. VAN FLEET
No. 7869
STATE OF CALIFORNIA

Michael Van Fleet, PG
Senior Geologist

Attch: Figure 1 – Stockpile Locations
Table 1 – Summary of Analytical Results for Metals
Table 2 – Summary of Non-Metals Analytical Results
Final Laboratory Report

Dist: 1/Addressee via electronic mail



STOCKPILE LOCATIONS

Fata Construction and Development

Grant High School
13000 Oxnard Street
Van Nuys, CA 91401

Project No:

10-41-198-01

Converse Consultants

FIGURE **1**

Table 1
Summary Analytical Results for Metal Constituents
Grant High School
Van Nuys, California

Sample ID	G-1	G-2	G-3	G-4	Guidance Levels				Regulatory Levels		
Sample Date	8/4/2010	8/4/2010	8/4/2010	8/4/2010	**CHHSL-r**	**CHHSL-i**	**RSL-r**	**RSL-i**	**TTLC**	**STLC**	**TCLP**
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L
Antimony	ND	ND	ND	ND	30	380	57.1	410	500	15	--
Arsenic*	**6.30**	**4.95**	**3.28**	**4.33**	0.07	0.24	0.39	1.6	500	5	5
Barium	**76.0**	**79.8**	**91.5**	**90.5**	5,200	63,000	15,000	190,000	10,000	100	100
Beryllium	ND	ND	ND	ND	150	1,700	160	2,000	75	0.75	--
Cadmium	ND	ND	ND	ND	1.7	7.5	70	810	100	1	1
Chromium (Total)	**7.90**	**6.90**	**10.7**	**10.5**	100,000	100,000	280	1,400	2,500	5	5
Chromium (VI)**	ND	ND	ND	ND	17	37	39	200	500	5	--
Cobalt	**7.40**	**5.95**	**7.05**	**7.20**	660	3,200	23	300	8,000	80	--
Copper	**20.1**	**13.9**	**20.9**	**20.5**	3,000	38,000	3,100	41,000	2,500	25	--
Lead	**20.1**	**10.7**	**19.3**	**18.1**	150	3,500	400	800	1,000	5	5
Mercury^	ND	ND	ND	ND	18	180	6.7	28	20	0.2	0.2
Molybdenum	ND	ND	ND	ND	380	4800	390	5,100	3,500	350	--
Nickel	**6.45**	**5.45**	**7.55**	**7.60**	1,600	16,000	1,600	20,000	2,000	20	--
Selenium	ND	ND	ND	ND	380	4,800	390	5,100	100	1	1
Silver	ND	ND	ND	ND	380	4,800	390	5,100	500	5	5
Thallium*	ND	ND	ND	ND	5	63	5.1	66	700	7	--
Vanadium	**18.6**	**18.7**	**22.7**	**22.6**	530	6,700	390	5,200	2,400	24	--
Zinc	**76.0**	**74.0**	**103**	**95.0**	23,000	100,000	23,000	310,000	5,000	250	--

Samples analyzed in accordance with EPA Method 6010
* = Reported concentration analyzed in accordance with EPA Method 6020
** = Reported concentration analyzed in accordance with EPA Method 7199
^ = Reported concentration analyzed in accordance with EPA Method 7471
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Practical Quantification Limits (PQLs)
J = Indicates analyte was detected. However, Analyte concentration is an estimated value which is between the method detection limit (MDL) and the PQL.

CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
RSL-r = Regional Screening Levels for Residential Soils
RSL-i = Regional Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

Table 2
Summary Analytical Results for Non-Metal Constituents
Grant High School
Van Nuys, California

Constituent		TPH			OCPs							OPPs	CHs	PCBs	VOCs	SVOCs
		C4-C12 (Gasoline) (mg/kg)	C13-C22 (Diesel) (mg/kg)	C23-C40 (Motor Oil) (mg/kg)	Total Chlordane (ug/kg)	DDD (ug/kg)	DDE (ug/kg)	DDT (ug/kg)	Dieldrin (ug/kg)	Heptachlor Epoxide (ug/kg)	All Others (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (mg/kg)
Sample ID	**Date**															
G-1/G-1A	8/4/2010	ND	**8.08**	**17.7**	**12.2**	**6.45**	**39.0**	**2.91**	**32.8**	ND	ND	ND	ND	ND	ND	ND
G-2/G-2A	8/4/2010	ND	**6.50**	**8.57**	**10.5**	**1.47J**	**13.8**	**2.04**	**7.90**	ND	ND	ND	ND	ND	ND	ND
G-3/G-3A	8/4/2010	ND	ND	ND	**78.7**	**3.59**	**13.6**	**4.71**	**67.8**	**3.81**	ND	ND	ND	ND	ND	ND
G-4/G-4A	8/4/2010	ND	ND	**2.24J**	**35.5**	**4.79**	**57.5**	**14.5**	**38.8**	**2.22**	ND	ND	ND	ND	ND	ND
Guidance Levels																
RSL-r		NA	NA	NA	**1,600**	**2,000**	**1,400**	**1,700**	**30**	**53**	NA	NA	NA	NA	NA	NA
RSL-i		NA	NA	NA	**6,500**	**7,200**	**5,100**	**7,000**	**110**	**190**	NA	NA	NA	NA	NA	NA
CHHSL-r		NA	NA	NA	**430**	**2 ,300**	**1,600**	**1,600**	**35**	**130**	NA	NA	NA	NA	NA	NA
CHHSL-i		NA	NA	NA	**1,700**	**9,000**	**6,300**	**6,300**	**130**	**520**	NA	NA	NA	NA	NA	NA
Regulatory Levels																
TTLC (ug/kg)		NA	NA	NA	**2,500**	**1,000**			**8,000**	**4,700**	NA	NA	NA	NA	NA	NA
STLC (ug/L)		NA	NA	NA	**250**	**100**			**800**	**470**	NA	NA	NA	NA	NA	NA
TCLP (ug/L)		NA	NA	NA	**30**	NA			NA	**8**	NA	NA	NA	NA	NA	NA
MSSLs (mg/kg)		**100***	**100***	**1000***	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected at or above PQL
NA = Not Applicable
PQL = Practical Quantitation Limit
MDL = Method Detection Limit
mg/kg = Milligrams per Kilograms
µg/kg = Micrograms per Kilograms
mg/L = Milligrams per Liter
J = Trace Concentration Between the MDL and PQL
TPH = Total Petroleum Hydrocarbons
OCPs = Organochlorine Pesticides
OPPs = Organophosphorus Pesticides
CHs = Chlorinated Herbicides
PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
RSL-r = Regional Screening Levels for Residential Soils
RSL-i = Regional Screening Levels for Industrial Soils
CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
MSSLs = Maximum Soil Screening Levels
* = MSSL Values for soil less than 20 feet above groundwater

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March 26, 2010

Mr. Lance Jaiteh
Sage Associates, Inc.
1301 Dove Street, Suite 820
Newport Beach, CA 92660

Subject: **Export Soil Sampling Report**
Grant High School
13000 Oxnard Street
Van Nuys, CA 91401
Converse Project No. 10-41-133-01

Mr. Jaiteh:

We have received and reviewed the analytical results of the soil samples collected from the soil stockpile at Grant High School, located at 13000 Oxnard Street, in Van Nuys, California (Site). The soil samples were collected from the stockpile in general accordance with our Sampling Management Plan (SMP)/Proposal dated February 23, 2010, which was prepared in accordance with the Los Angeles Unified School District (LAUSD) Specification Section 01440 – Environmental Import/Export Materials Testing (Section 01440), revision dated August 1, 2008, and approved by the LAUSD – Office of Environmental Health and Safety (OEHS).

The volume of stockpiled soil material anticipated to be exported from the Site was initially estimated to be approximately 50-100 cubic yards; observations of the stockpile confirmed this estimate to be accurate. On March 18, 2010, three (3) discrete soil samples were collected from various depths (top, middle and bottom) of the stockpile at locations depicted on Figure 1 – Stockpile Location. Soil for the analyses was collected in laboratory-supplied 4 oz. glass jars, and sub-samples were collected in accordance with EPA Method 5035 using EnCore sample containers from location G-1A. The sample containers were stored in a chilled container and transported to American Environmental Testing Laboratory (AETL) in Burbank under chain-of-custody documentation for analysis.

The laboratory was requested to prepare one (1) composite sample from the set of three (3) discrete samples. One (1) composite sample and one (1) discrete sub-sample were analyzed in accordance with our SMP. Analyses for Total Petroleum Hydrocarbons in the gasoline range (TPH-gas) and Volatile Organic Compounds (VOCs) were performed from the discrete samples collected in the EnCore sample containers, and all other analyses were performed from the laboratory-prepared composite sample. In addition, a portion of the soil samples from each location were collected into sealable plastic bags and screened in the field for the presence of VOCs

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using a Photo-ionization Detector (PID). No VOCs were detected in any of the samples screened in the field.

Analytical results of the stockpile samples have been compared to hazardous waste disposal threshold criteria, Department of Toxic Substance Control (DTSC) health-risk based screening levels, and to criteria presented in LAUSD Section 01440.

The laboratory analytical results are presented on Tables 1 and 2, and summarized as follows:

- Metals – All reported metals are below their respective Total Threshold Limit Concentration (TTLC) values. The reported arsenic concentration of 5.90 milligrams per kilogram (mg/kg) is below the DTSC screening level of 12.0 mg/kg. The reported lead concentration of 13.5 mg/kg is below the DTSC screening level of 255 mg/kg for lead.
- Total Petroleum Hydrocarbons (TPH) was not reported in the gasoline (C4-C12) range. However, TPH in the diesel (C13-C22) and heavy hydrocarbon (C23-C40) ranges were reported with concentrations of 2.62 and 29.4 mg/kg, respectively. The concentrations are less than the California Regional Water Quality Control Board (CRWQCB) Maximum Soil Screening Levels (MSSLs) of 100 and 1,000 mg/kg for diesel and heavy range hydrocarbons, respectively. The combined diesel and heavy range hydrocarbon concentration (32.0 mg/kg) is also below the acceptance criteria level specified in LAUSD Section 01440 of 1,000 mg/kg for diesel and heavy range hydrocarbons.
- One Organochlorine Pesticide (OCP) was reported in the soil sample. Dieldrin was reported with a concentration of 7.68 micrograms per kilogram (µg/kg), which is below the TTLC value of 8,000 µg/kg.
- Organophosphorous Pesticides (OPPs) were not reported in the soil sample.
- Chlorinated Herbicides (CHs) were not reported in the soil sample.
- Polychlorinated bi-phenyls (PCBs) were not reported in the soil sample.
- Volatile Organic Compounds (VOCs) were not reported in the soil sample.
- Semi-Volatile Organic Compounds (SVOCs) were not reported in the soil sample.

Results of the sample analyses indicate that all constituents are below their respective TTLC concentrations and therefore the soil is not considered to be hazardous waste.

Based on LAUSD Section 01440, the soil may not be acceptable for use onsite or at other LAUSD school sites due to the detections of OCPs at any concentration unless further evaluation is completed that may include a health risk evaluation. The

acceptance criteria for metals, TPH and OCP concentrations vary, so the analytical data should be presented for acceptance to the location that will take the soil.

This report has been prepared for the exclusive use of Sage Associates, Inc. in accordance with the terms and conditions under which these services were provided. Any reliance on this report by third parties shall be at third party's sole risk. Our services have been performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

Converse Consultants is not responsible or liable for the accuracy or completeness of available information provided by others. Site exploration identifies actual conditions only at those points where samples are taken, when they are taken.

Data derived through sampling and analytical testing are extrapolated by geoscientists who then render an opinion about overall conditions. Actual conditions in the areas not sampled may differ from the predictions. This report should not be regarded as a guarantee that no further contamination, beyond that which was detected in our investigation, is present beneath the property. In the event that changes to the property occur, or additional, relevant information about the property is brought to our attention, the recommendations contained in this report may not be valid unless these changes and additional relevant information are reviewed and the recommendations of this report are modified in writing.

Attached are summary tables for all reported constituents and the final laboratory analytical report for the sample.

We appreciate this opportunity to be of service. Please feel free to contact Michael Van Fleet at (626) 930-1267, should you have any questions.

Sincerely,

CONVERSE CONSULTANTS

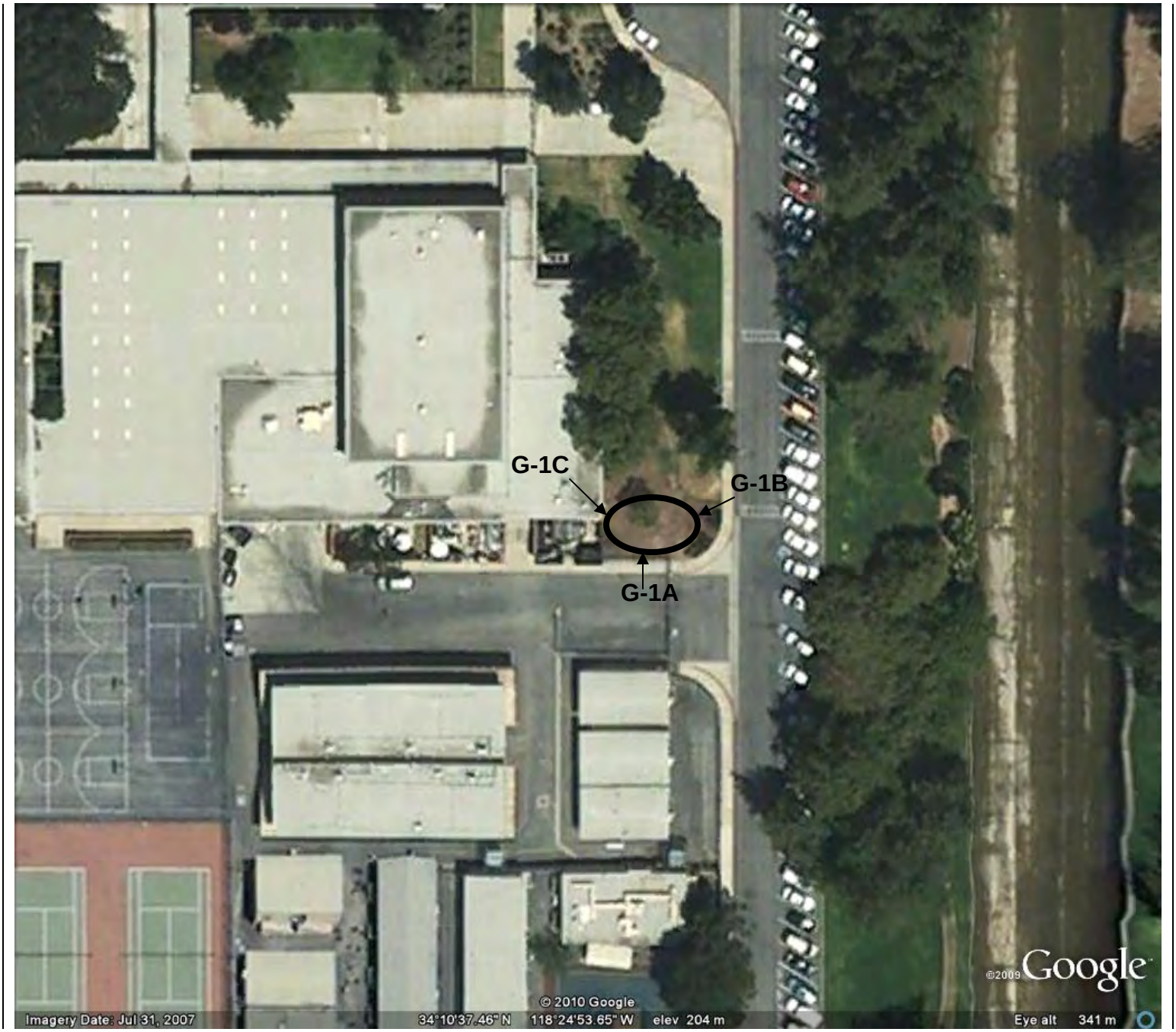
Amanda Liu
Staff Environmental Scientist

Michael Van Fleet, PG
Senior Geologist

PROFESSIONAL GEOLOGIST
MICHAEL A. VAN FLEET
No. 7869
STATE OF CALIFORNIA

Attch: Figure 1 – Stockpile Location
Table 1 – Summary of Analytical Results for Metals
Table 2 – Summary of Non-Metals Analytical Results
Final Laboratory Reports

Dist: 1/Addressee via electronic mail



STOCKPILE LOCATION

Sage Associates, Inc.

Grant High School
13000 Oxnard Street
Van Nuys, CA 91401

Project No:

10-41-133-01

Converse Consultants

FIGURE **1**

Table 1
Summary Analytical Results for Metal Constituents
Grant High School
Van Nuys, California

Sample ID	**G-1**	**Guidance Levels**				**Regulatory Levels**		
Sample Date	3/18/2010	**CHHSL-r**	**CHHSL-i**	**RSL-r**	**RSL-i**	**TTLC**	**STLC**	**TCLP**
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L
Antimony	ND	30	380	57.1	410	500	15	--
Arsenic*	**5.90**	0.07	0.24	0.39	1.6	500	5	5
Barium	**75.9**	5,200	63,000	15,000	190,000	10,000	100	100
Beryllium	ND	150	1,700	160	2,000	75	0.75	--
Cadmium	ND	1.7	7.5	70	810	100	1	1
Chromium (Total)	**7.95**	100,000	100,000	280	1,400	2,500	5	5
Chromium (VI)**	ND	17	37	39	200	500	5	--
Cobalt	**6.00**	660	3,200	23	300	8,000	80	--
Copper	**17.9**	3,000	38,000	3,100	41,000	2,500	25	--
Lead	**13.5**	150	3,500	400	800	1,000	5	5
Mercury^	ND	18	180	6.7	28	20	0.2	0.2
Molybdenum	ND	380	4800	390	5,100	3,500	350	--
Nickel	**6.35**	1,600	16,000	1,600	20,000	2,000	20	--
Selenium	ND	380	4,800	390	5,100	100	1	1
Silver	ND	380	4,800	390	5,100	500	5	5
Thallium*	ND	5	63	5.1	66	700	7	--
Vanadium	**20.3**	530	6,700	390	5,200	2,400	24	--
Zinc	**48.7**	23,000	100,000	23,000	310,000	5,000	250	--

Samples analyzed in accordance with EPA Method 6010
* = Reported concentration analyzed in accordance with EPA Method 6020
** = Reported concentration analyzed in accordance with EPA Method 7199
^ = Reported concentration analyzed in accordance with EPA Method 7471
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Practical Quantification Limits (PQLs)

CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
RSL-r = Regional Screening Levels for Residential Soils
RSL-i = Regional Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

J = Indicates analyte was detected. However, Analyte concentration is an estimated value which is between the method detection limit (MDL) and the PQL.

Table 2
Summary Analytical Results for Non-Metal Constituents
Grant High School
Van Nuys, California

Constituent		TPH			OCPs		OPPs	CHs	PCBs	VOCs	SVOCs
		C4-C12 (Gasoline) (mg/kg)	C13-C22 (Diesel) (mg/kg)	C23-C40 (Motor Oil) (mg/kg)	Dieldrin (ug/kg)	All Others (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (mg/kg)
Sample ID	**Date**										
G-1/G-1A	3/18/2010	ND	**2.62J**	**29.4**	**7.68**	ND	ND	ND	ND	ND	ND
Guidance Levels											
RSL-r		NA	NA	NA	**30**	NA	NA	NA	NA	NA	NA
RSL-i		NA	NA	NA	**110**	NA	NA	NA	NA	NA	NA
CHHSL-r		NA	NA	NA	**35**	NA	NA	NA	NA	NA	NA
CHHSL-i		NA	NA	NA	**130**	NA	NA	NA	NA	NA	NA
Regulatory Levels											
TTLC (ug/kg)		NA	NA	NA	**8,000**	NA	NA	NA	NA	NA	NA
STLC (ug/L)		NA	NA	NA	**800**	NA	NA	NA	NA	NA	NA
TCLP (ug/L)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSSLs (mg/kg)		**100***	**100***	**1000***	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected at or above PQL
NA = Not Applicable
PQL = Practical Quantitation Limit
MDL = Method Detection Limit
mg/kg = Milligrams per Kilograms
µg/kg = Micrograms per Kilograms
mg/L = Milligrams per Liter
J = Trace Concentration Between the MDL and PQL
TPH = Total Petroleum Hydrocarbons
OCPs = Organochlorine Pesticides
OPPs = Organophosphorus Pesticides
CHs = Chlorinated Herbicides

PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-volatile Organic Compounds
RSL-r = Regional Screening Levels for Residential Soils
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TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
MSSLs = Maximum Soil Screening Levels
* = MSSL Values for soil less than 20 feet above groundwater

Converse Consultants
Over 50 Years of Dedication in Geotechnical Engineering and Environmental Sciences

August 16, 2011

Mr. Larry Erbe
JAM Corporation
1930 S. Myrtle Avenue
Monrovia, CA 91016

Subject: **Export Soil Sampling Report**
Grant High School
13000 Oxnard Street
Van Nuys, CA 91401
Converse Project No. 11-41-220-01

Mr. Erbe:

We have received and reviewed the analytical results of the soil samples collected from the soil stockpile at Grant High School, located at 13000 Oxnard Street, in Van Nuys, California (Site). The soil samples were collected in general accordance with our Sampling Strategy Plan (SSP)/Proposal dated August 1, 2011, which was prepared in accordance with the Los Angeles Unified School District (LAUSD) Specification Section 01440 – Environmental Import/Export Materials Testing (Section 01440), revision dated January 5, 2009, and approved by the LAUSD – Office of Environmental Health and Safety (OEHS).

The estimated volume to be exported from the Site was reported to be approximately 20.5 cubic yards; observations of the stockpile indicated the estimate to be accurate. On August 8, 2011, three (3) discrete soil samples were collected from varying depths and locations throughout the stockpile as depicted on Figure 1 – Soil Sampling Locations. Soil for the analyses was collected in laboratory-supplied 4 oz. glass jars, and sub-samples were collected in accordance with EPA Method 5035 using EnCore sample containers from location G-1A. The sample containers were stored in a chilled container and transported to American Environmental Testing Laboratory (AETL) in Burbank under chain-of-custody documentation for analysis.

The laboratory was requested to prepare one (1) composite sample from the set of three (3) discrete samples. One (1) composite sample and one (1) discrete sub-samples were analyzed in accordance with our SSP/Proposal. Analyses for Total Petroleum Hydrocarbons in the gasoline range (TPH-gas) and Volatile Organic Compounds (VOCs) were performed from the discrete samples collected in the EnCore sample containers, and all other analyses were performed from the laboratory-prepared composite samples. In addition, a portion of the soil samples from each location were collected into sealable plastic bags and screened in the field for the presence of VOCs using a Photo-ionization Detector (PID). No VOCs were detected in any of the samples screened in the field.

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Analytical results of the stockpile samples have been compared to hazardous waste disposal threshold criteria, Department of Toxic Substance Control (DTSC) health-risk based screening levels, and to criteria presented in LAUSD Section 01440.

The laboratory analytical results are presented on Tables 1 and 2, and summarized as follows:

- Metals – All reported metals are below their respective Total Threshold Limit Concentration (TTLC) values. The estimated reported lead concentration of 4.52 milligrams per kilogram (mg/kg) is below the screening level for lead specified in Section 01440 of 255 mg/kg.
- Total Petroleum Hydrocarbons (TPH) was not reported in the gasoline (C4-C12) or diesel (C13-C22) ranges. However, TPH in the heavy hydrocarbon (C23-C40) range was reported with a concentration of 15.9 mg/kg, which is below the California Regional Water Quality Control Board's (RWQCB) Maximum Soil Screening Level of 1,000 mg/kg for heavy range hydrocarbons. The combined TPH concentration (15.9 mg/kg) is also below the LAUSD Section 01440 screening level of 1,000 mg/kg for diesel and heavy range hydrocarbons.
- One Organochlorine Pesticide (OCP) was reported in the soil sample. DDE was reported with a concentration of 4.52 micrograms per kilogram (µg/kg), which is below its TTLC value of 1,000 µg/kg.
- Organophosphorous Pesticides (OPPs) were not reported in the soil sample.
- Chlorinated Herbicides (CHs) were not reported in the soil sample.
- Polychlorinated bi-phenyls (PCBs) were not reported in the soil sample.
- Volatile Organic Compounds (VOCs) were not reported in the soil sample.
- Semi-volatile Organic Compounds (SVOCs) were not reported in the soil sample.

Results of the sample analyses indicate that all constituents are below their respective TTLC concentrations and therefore the soil is not considered to be hazardous waste.

Based on LAUSD Section 01440, the soil may not be acceptable for use onsite or at other LAUSD school sites due to the detections of OCPs at any concentration unless further evaluation is completed that may include a health risk evaluation. It is recommended that the soil is removed from the Site, thus the analytical data should be presented for acceptance to the location that will take the soil because the acceptance criteria for metals, TPH, and OCP concentrations vary.

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performed in accordance with applicable state and local ordinances, and generally accepted practices in the geosciences. No other warranty, either expressed or implied, is made.

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Attached are summary tables for all reported constituents and the final laboratory analytical report for the samples.

We appreciate this opportunity to be of service. Please feel free to contact Norman Eke at (626) 930-1260, should you have any questions.

Sincerely,

CONVERSE CONSULTANTS

PROFESSIONAL GEOLOGIST
Geoffrey Daniel Stokes
NO. 2266
CERTIFIED
ENGINEERING
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Norman S. Eke
Managing Officer

Attch: Figure 1 – Soil Sampling Locations
Table 1 – Summary of Analytical Results for Metals
Table 2 – Summary of Non-Metals Analytical Results
Final Laboratory Report

Dist: 1/Addressee via electronic mail

STOCKPILE LOCATION

JAM Corporation

Grant High School
13000 Oxnard Street
Van Nuys, CA 91401

Project No:

11-41-220-01

Converse Consultants

FIGURE **1**

Table 1
Summary Analytical Results for Metal Constituents
Grant High School
Van Nuys, California

Sample ID	**G-1**	**Guidance Levels**				**Regulatory Levels**		
Sample Date	8/8/2011	**CHHSL-r**	**CHHSL-i**	**RSL-r**	**RSL-i**	**TTLC**	**STLC**	**TCLP**
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L
Antimony	ND	30	380	31	410	500	15	--
Arsenic*	ND	0.07	0.24	0.39	1.6	500	5	5
Barium	**94.3**	5,200	63,000	15,000	190,000	10,000	100	100
Beryllium	ND	150	1,700	160	2,000	75	0.75	--
Cadmium	ND	1.7	7.5	70	810	100	1	1
Chromium (Total)	**8.29**	100,000	100,000	--	--	2,500	5	5
Chromium (VI)**	ND	17	37	0.29	5.6	500	5	--
Cobalt	**6.87**	660	3,200	23	300	8,000	80	--
Copper	**10.2**	3,000	38,000	3,100	41,000	2,500	25	--
Lead	**4.52J**	150	3,500	400	800	1,000	5	5
Mercury^	ND	18	180	5.6	34	20	0.2	0.2
Molybdenum	ND	380	4800	390	5,100	3,500	350	--
Nickel	**6.96**	1,600	16,000	1,500	20,000	2,000	20	--
Selenium	ND	380	4,800	390	5,100	100	1	1
Silver	ND	380	4,800	390	5,100	500	5	5
Thallium*	ND	5	63	--	--	700	7	--
Vanadium	**21.3**	530	6,700	390	5,200	2,400	24	--
Zinc	**39.9**	23,000	100,000	23,000	310,000	5,000	250	--

Samples analyzed in accordance with EPA Method 6010
* = Reported concentration analyzed in accordance with EPA Method 6020
** = Reported concentration analyzed in accordance with EPA Method 7199
^ = Reported concentration analyzed in accordance with EPA Method 7471A
mg/kg = Milligrams per Kilogram
mg/L = Milligrams per Liter
ND = Not Detected at or above Method Detection Limit (MDL)

CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
RSL-r = Regional Screening Levels for Residential Soils
RSL-i = Regional Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

J = Indicates analyte was detected. However, Analyte concentration is an estimated value which is between the MDL and the Practical Quantification Limits (PQLs).

Table 2
Summary Analytical Results for Non-Metal Constituents
Grant High School
Van Nuys, California

Constituent		TPH			OCPs		OPPs	CHs	PCBs	VOCs	SVOCs
		C4-C12 (Gasoline) (mg/kg)	C13-C22 (Diesel) (mg/kg)	C23-C40 (Motor Oil) (mg/kg)	DDE (ug/kg)	All Others (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (ug/kg)	All (mg/kg)
Sample ID	**Date**										
G-1/G-1A	8/8/2011	ND	ND	**15.9**	**4.52**	ND	ND	ND	ND	ND	ND
Guidance Levels											
RSL-r		NA	NA	NA	**1,400**	NA	NA	NA	NA	NA	NA
RSL-i		NA	NA	NA	**5,100**	NA	NA	NA	NA	NA	NA
CHHSL-r		NA	NA	NA	**1,600**	NA	NA	NA	NA	NA	NA
CHHSL-i		NA	NA	NA	**6,300**	NA	NA	NA	NA	NA	NA
Regulatory Levels											
TTLC (ug/kg)		NA	NA	NA	**1,000**	NA	NA	NA	NA	NA	NA
STLC (ug/L)		NA	NA	NA	**100**	NA	NA	NA	NA	NA	NA
TCLP (ug/L)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MSSLs (mg/kg)		**100***	**100***	**1000***	NA	NA	NA	NA	NA	NA	NA

ND = Not Detected at or above PQL
NA = Not Applicable
PQL = Practical Quantitation Limit
MDL = Method Detection Limit
mg/kg = Milligrams per Kilograms
µg/kg = Micrograms per Kilograms
mg/L = Milligrams per Liter
MSSLs = Maximum Soil Screening Levels
* = MSSL Values for soil less than 20 feet above groundwater

RSL-r = Regional Screening Levels for Residential Soils
RSL-i = Regional Screening Levels for Industrial Soils
CHHSL-r = California Human Health Screening Levels for Residential Soils
CHHSL-i = California Human Health Screening Levels for Industrial Soils
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure

GLOBAL GEO-ENGINEERING, INC.

March 30, 2012
Project 4928-09

Chevron Energy Solutions Company
150 East Colorado Boulevard, Suite 360
Pasadena, California 91105

Attention: Mr. Barry Kirschenbaum
Project Manager

Subject: Chemical Analyses of Soil Samples
Chevron Solar Photovoltaic Systems Project
Ulysses S. Grant Senior High School
13000 Oxnard Street
Van Nuys, California

Dear Mr. Kirschenbaum:

1. INTRODUCTION

a) In accordance with your request, we have performed chemical analyses of soils samples collected from one stockpile located at the above referenced site in Los Angeles, California. The stockpile consists of excavated soil generated as part of the installation of Solar Photovoltaic (PV) Systems at the above referenced school site.

b) The purpose of this investigation was to obtain chemical analysis information in order to determine if any contamination is present in the soils planned to be excavated from the area.

c) The soil samples were collected in general accordance with our *Work Plan for Soil Stockpile Sampling,* dated February 28, 2012, prepared in accordance with the Los Angeles Unified School District (LAUSD) Specification Section 01440 Environmental Import/Export Materials Testing.

2. FIELD SAMPLING AND CHEMICAL TESTING

a) The volume of the stockpile is approximately 65 cubic yards according to *Chevron* personnel. Our observations of the stockpile generally confirmed the approximate volume of soil. The stockpile sampling locations are shown on the enclosed *Sample Location Plan, Figure 1.*

3 Corporate Park, Suite 270, Irvine, California 92606
Office (949) 221-0900 Fax (949) 221-0091
e-mail: global@globalgeo.net

b) The samples were collected by a Certified Engineering Geologist from the site in compliance with the following Los Angeles Unified School District requirements:

i) One grab sample, consisting of three (3) sub-composite samples from the stockpile of excavated soil, was collected in accordance with LAUSD Specification Section 01440 Guidance.

ii) The three (3) sub-composite samples were collected at 3 feet from the top, at the middle, and at the bottom of the stockpile. The sample collection included extraction of a discrete sample for volatile organic compounds (VOCs) in accordance with EPA Method 5035.

iii) The grab sample, consisting of sub-samples, was composited into a single sample in the laboratory and analyzed in accordance with the LAUSD Section 01440 Guidance requirements at *Enviro-Chem*, a State Accredited Analytical Laboratory.

iv) The samples were tested for the following chemicals:

- Total Petroleum Hydrocarbons (TPH) by Test Method EPA 8015M/Carbon Chain (including oil-range TPH);
- VOCs by Test Method EPA 8260B /EPA 5035;
- Polychlorinated biphenyls (PCB) by Test Method EPA 8082;
- Semi- VOCs by Test Method 8270C (Method Detection Limit (MDL) of 250 ug/kg was specified);
- Organochlorine Pesticides (OCP) by Test Method EPA 8081A;
- Organophosphorous Pesticides (OPP) by Test Method EPA 8141A;
- Chlorinated Herbicides (CLH) by EPA Test Method 8151A;
- Title 22 Metals by Test Method SW 846 EPA 6010B;
- Arsenic by Test Method SW846 EPA 6020B;
- Hexavalent Chromium (Cr6) by Test Method EPA 7199

3. LABORATORY RESULTS

a) The detected chemical concentrations in mg/kg (ppm) are provided below. All other contaminants analyzed for this project were not detected.

Chemicals	Concentration (mg/kg)	State of California TTLC Limits (mg/kg)
Arsenic (As)	0.52	500
Barium (Ba)	32.9	10000
Chromium Total (Cr)	2.46	2500
Cobalt (Co)	1.77	8000
Copper (Cu)	3.53	2500
Lead (Pb)	0.789	1000
Vanadium (V)	5.53	2400
Zinc (Zn)	13.1	5000
Alpha-Chlordane	0.002	0.6
Gamma-Chlordane	0.001	0.6
Technical Chlordane	0.006	0.6

b) The complete results of the chemical analyses are enclosed in *Appendix A.*

4. CONCLUSIONS

a) None of the Volatile Organic Compounds (VOCs), Semi-VOCs, or Total Petroleum Hydrocarbon (TPH) - Carbon Chains C-4 through C-35 were detected in the analyzed samples.

b) All the detected metals were found to be well below the State of California acceptable *Total Threshold Limit Concentrations* (TTLC) or the limits specified by the LAUSD.

c) None of the Organochlorine Pesticides or PCBs were detected with the exception of alpha-Chlordane, gamma-Chlordane, Technical Chlordane, which was detected at trace concentrations of 0.002, 0.001 and 0.006 mg/kg, respectively.

d) None of the Organophosphorous Pesticides were detected in the analyzed sample.

e) None of the Chlorinated Herbicides were detected in the analyzed sample.

5. RECOMMENDATIONS

Based on the LAUSD Section 01440, the soils are acceptable to be used onsite, at other LAUSD school sites or for transport off site as clean fill. No further action is recommended.

6. LIMITATIONS

a) Soils and bedrock over an area show variations in geological structure, type, strength and other properties from what can be observed, sampled and tested from specimens extracted from necessarily limited explorations. Therefore, there are natural limitations inherent in making geologic and soil engineering studies and analyses. Our findings, interpretations, analyses and recommendations are based on observation, laboratory data and our professional experience; and the projections we make are professional judgments conforming to the usual standards of the profession. No other warranty is herein expressed or implied.

b) In the event that during any future construction, conditions are exposed which are significantly different from those described in this report, they should be brought to the attention of the Geotechnical Engineer.

The opportunity to be of service is sincerely appreciated. If you have any questions or if we can be of further assistance, please call.

Very truly yours,

GLOBAL GEO-ENGINEERING, INC.

REGISTERED PROFESSIONAL ENGINEER MOHAN B. UPASANI Exp. Date 03/31/13 2301 GEOTECHNICAL STATE OF CALIFORNIA

Mohan B. Upasani
Principal Geotechnical Engineer
RGE 2301
(Exp. March 31, 2013)

CERTIFIED ENGINEERING GEOLOGIST KEVIN B. YOUNG No. 2253 Exp. 10-31-13 STATE OF CALIFORNIA

Kevin B. Young
Principal Engineering Geologist
CEG 2253
(Exp. October 31, 2013)

MBU/KBY:kby

Enclosures:

Sample Location Plan - Figure 1
Laboratory Report (Enviro-Chem Inc. Lab ID #120227-5) - Appendix A

Excavation Soil Sampling For
New Visitor Grand Stand & Sanitary Building
Grant High School (8683)
13000 Oxnard Street, Van Nuys, CA 91401

PREPARED FOR

ALFA 26 Construction Company
1044 Pico Boulevard
Santa Monica, California

September 18, 2013

715 North Central Avenue, Suite 212, Glendale, CA 91203. Tel. 818-547-1330, Fax. 818-547-1331

September 4, 2013
Project No. 23.06909
OAR/ CM: Alvaro Rosales

Mohamed Elhelbawy
ALFA 26 Construction Company
1044 Pico Boulevard
Santa Monica, California

Excavation Soil Sampling For
New Visitor Grand Stand & Sanitary Building
Grant High School (8683)
13000 Oxnard Street, Van Nuys, CA 91401

Environmental Engineering, Inc. (EEI) is pleased to present the results of Excavation Soil Samples for Grant High School in Van Nuys, California. The ALFA 26 Construction Company excavated approximately 198 cubic yard (CY) of soils from the following areas of the Project.

i. 6" Footing Excavation For the New 30'X12' Sanitary Building
ii. 30'X150' New Visitor Bleacher Area Compacted Backfill to 9"
iii. ADA Sidewalk Excavation of 300'X8'X4"
iv. Fire Hydrant Trench Excavation of 1200'X1.5' X 2.5'

The excavated dirt was stockpiled at the southeast corner of Football Field and covered with poly for sampling and disposal. The location of the excavation is shown in the attached drawing 1.

Sample Collection & Analysis

Dr. Zainul Abedin of Environmental Engineering Inc collected soil samples from the Site on September 11, 2013 in accordance with the Workplan approved by the OEHS. Sample S_1 comprising three discrete (S_{1A}-S_{1C}) samples were collected at 1.5' (S_{1A}), at 3.5' (S_{1B}), and at 5.5' (S_{1C}) depths were collected from the northern part of the stockpile. Sample S_2 comprising three discrete (S_{2A}-S_{2C}) samples were collected at 2.0' (S_{2A}), at 4.5' (S_{2B}), and at 6.5' (S_{2C}) depths were collected from the southern part of the stockpile. The north-south aligned stockpile was approximately seven (7) feet high on the northern part and nine (9) feet high on the southern part.

A discrete sample S_1' was collected at S_{1B} location in accordance with EPA Method 5035 using En Novative Technologies, Inc.'s En Core sampler for Total Petroleum Hydrocarbon analysis by Test Method EPA 8015M and VOC analysis by Test Method EPA 8260B. A second En Core discrete sample S_2' was collected at S_{2B} location for TPH and VOCs.

A backhoe excavator was used to take soil samples. Soil samples were collected directly into the laboratory supplied 8 oz glass jars. The sample jars were filled without any headspace and sealed tightly with the end caps.

All samples were collected without using any reusable tools and containers. Each sample was labeled with Sample ID, and date and time. The samples were kept chilled in the field and during transport to the laboratory in an ice chest. A chain of custody data sheet was generated to accompany the samples to laboratory. Sample ID, locations, descriptions, analysis with date and time of collection were recorded on the Chain of Custody Sheet.

Laboratory Analysis & Results

Soil samples were analyzed at Cal Tech Laboratories located in Paramount, California. Cal Tech Laboratories is a California Department of Health Services-accredited analytical laboratory under the ELAP (2424) Program. The laboratory performed analysis for the following tests.

Total Petroleum Hydrocarbon Gasoline (TPHg) by Test Method EPA 8015M (Encore)
VOCs by Test Method EPA 8260B/5035 (Encore)
Total Petroleum Hydrocarbon Diesel (TPHD) & Oil Carbon Chain by Test Method EPA 8015M (Composite)
Polychlorinated biphenyls by Test Method EPA 8082
Semi- VOCs by Test Method EPA 8270C
Organochlorine Pesticides (OCP) by Test Method EPA 8081A
Organophosphorous Pesticides (OPP) by Test Method EPA 8141A
Chlorinated Herbicides (CLH) by EPA Test Method 8151A
Title 22 Metals by Test Method SW 846 EPA 6010B
Arsenic and Thallium by Test Method SW846 EPA 6020B
Mercury by Test Method SW 846 EPA 7471
Hexavalent Chromium (Cr_6) by Test Method EPA 7199

Laboratory analyses detected no total petroleum hydrocarbon by EPA 8015M-Carbon Chain, Volatile Organic Carbons (VOCs) by EPA 8260, and Semi-Volatile Organic Carbons (Semi-VOCs) by EPA 8270C in the soil sample. No Organochlorine Pesticides (OCP), Organophosphorous Pesticides (OPP), and Chlorinated Herbicides (CLH) were found in the soil sample by the test methods EPA 8081A, 8141A, and 8151A, respectively. The laboratory results by test method EPA 8082 indicated no Polychlorinated biphenyls (PCBs) in the soil sample. There was no Hexavalent Chromium (Cr_{VI}) found in the soil samples by laboratory analysis method EPA 7199.

Laboratory results found no Antimony, Beryllium, Cadmium, Molybdenum, Selenium, Silver, and Thallium in the composite samples by Test Method SW 846 EPA 6010B/7000. No Mercury was detected in soils tested by Test Method SW 846 EPA 7471. The laboratory results detected concentrations of Arsenic, Barium, Chromium, Cobalt, Copper, Lead, Nickel, Vanadium, and Zinc analyzed for Title 22 Metals by Test Method SW 846 EPA 6010B/7000. The results indicated 0.11 to 0.072 mg/kg of Arsenic, 160 to 180 mg/kg of Barium, none to 2.5 mg/kg of Chromium, 1.1 to 2.1 mg/kg of Cobalt, 37 to 38 mg/kg of Copper, 16 to18 mg/kg of Lead, 2.2 to 3.5 mg/kg of Nickel, 25 to 28 mg/kg of Vanadium, and 64 to 110 mg/kg of Zinc in the composite sample. The Soil test results are summarized in Table 1. Laboratory results are included in Exhibit-I.

Table 1. Soil Sample Results

Samples Elements	1 mg/kg	2	STLC mg/l	TTLC mg/kg
VOCs	ND			
Semi-VOCs	ND			
TPH_{gas}	ND			
TPH_{Diesel}	ND			
Heavy Oils	ND			
PCB	ND			
OCP	ND			
OPP	ND			
CLH	ND			
Cr_{VI}	ND			
Antimony	ND	ND	15	500
Arsenic	0.11	0.072	5	500
Barium	180	160	100	10,000
Beryllium	ND	ND	0.75	75
Cadmium	ND	ND	1	100
Chromium	2.5	ND	5	2,500
Cobalt	2.1	1.1	80	8,000
Copper	38	37	25	2,500
Lead	18	16	5	1,000
Mercury	ND	ND	0.2	20
Molybdenum	ND	ND	350	3,500
Nickel	3.5	2.2	20	2,000
Selenium	ND	ND	1	100
Silver	ND	ND	5	500
Thallium	ND	ND	7	700
Vanadium	28	25	24	2,400
Zinc	110	64	250	5,000

Recommendations

The observed heavy metals concentrations were below the Soil Threshold Criteria in accordance with the Table 2 of the LAUSD Environmental Soil Testing Guidance Section 01-4524. These observed heavy metals concentrations were below the regulatory threshold limit concentrations (TTLC) and 10 times the soluble threshold limit concentrations (STLC).

Based on the results of the soil samples, we conclude that there are no contaminations by hydrocarbons, organic compounds, solvents, PCBs, pesticides, herbicides, or heavy metals in the excavation soils at the School Site.

We recommend that the Contractor be allowed to export and/or reuse the excavated dirt materials from the School Site.

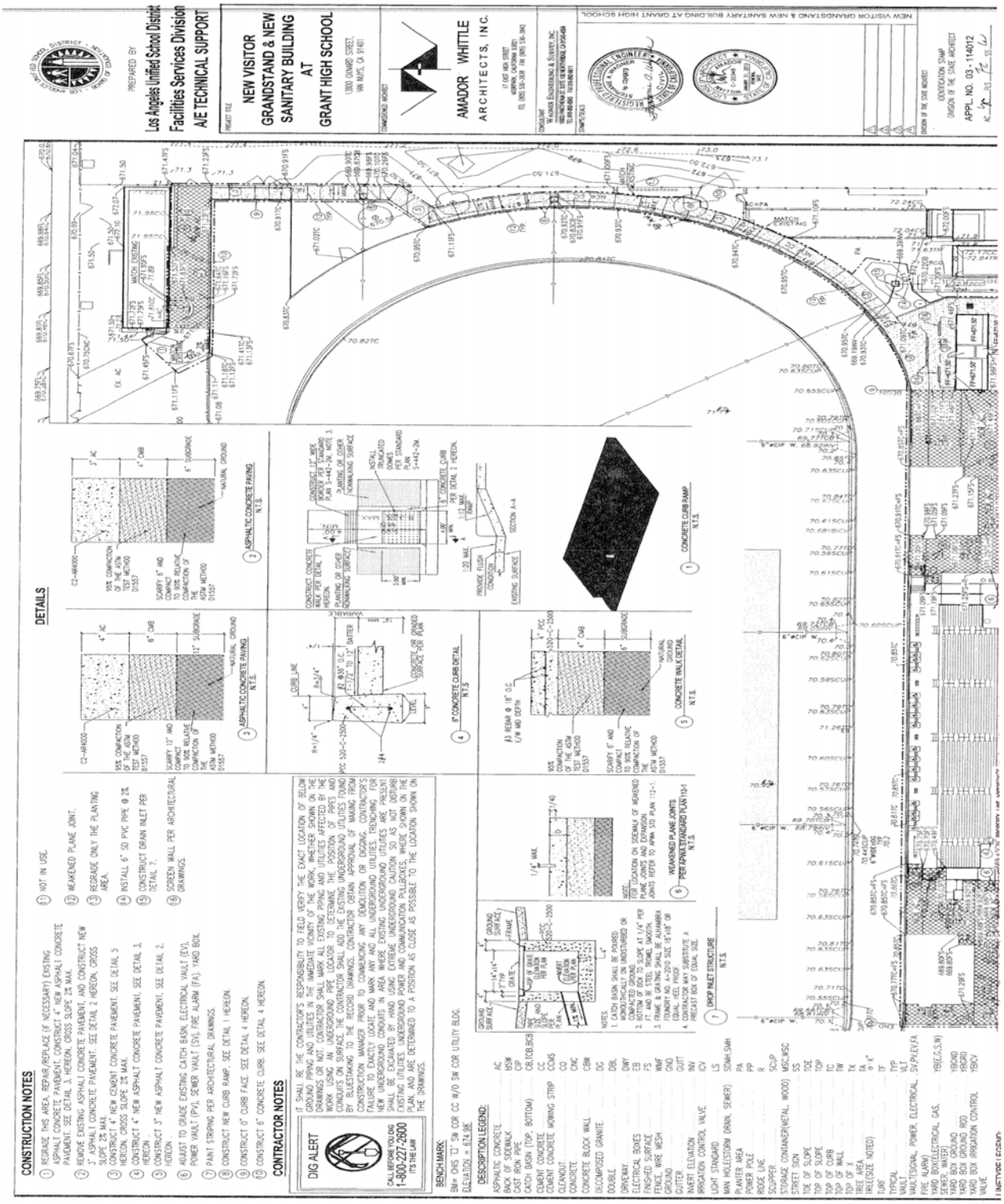
In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the standard of practice on the date of this report and in the locale of the project site for similar type studies. Environmental Engineering, Inc makes no warranty, express or implied, in fact or by law, whether of merchantability, fitness for any particular purpose, or otherwise concerning any of the materials or services furnished to client.

The analyses and interpretations presented in this report have been developed based on the review of existing information pertaining to the Site, and the results of the laboratory analyses of soil samples. Copies of laboratory results with chain-of-custody documentation complete this report.

Sincerely,
ENVIRONMENTAL ENGINEERING, INC.

Zainul Abedin, PhD, REA
Project Manager

Site Layout 1 : Excavation & Dirt Stockpile Area



Appendix K

Preliminary Environmental Screening Checklist

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: Ulysses S. Grant High School

Selection Criteria	Yes	No	Comments
Powerlines/Electromagnetic Fields [CCR, Title 5, 14010(c)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from 50-133 kV powerlines/electromagnetic fields within 100 feet of the site		x	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from 220-230 kV powerlines/electromagnetic fields within 150 feet of the site?		x	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from 500-550 kV powerlines/electromagnetic fields within 350 feet of the site		x	
Railroads [CCR, Title 5, 14010(d)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from railroads within 1,500 feet of the site		x	
Traffic Noise [CCR, Title 5, 14010(e)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from adjacent roads or freeways that will adversely affect the educational program?		x	
Faults [CCR, Title 5, 14010(f)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from an active earthquake fault or fault trace which may be onsite		x	
Flood or Inundation Area [CCR, Title 5, 14010(g)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from flooding or dam inundation?		x	The site is located within an inundation zone, but it is not expected that the project will create any new or significant safety hazards associated with th criteria.
Pipelines and Above Ground Tanks [CCR, Title 5, 14010(h)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from nearby above-ground water or fuel storage tanks		x	See easement section
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from above-ground or underground pipelines located within 1,500 feet of the site?		x	
Liquefaction and Landslides [CCR, Title 5, 14010(i)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from liquefaction or landslides?		x	The site is located within a liquifaction zone, but it is not expected that the project will create any new or significant safety hazards associated with th criteria.

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: Ulysses S. Grant High School

Selection Criteria	Yes	No	Comments
Traffic and Pedestrian Safety [CCR, Title 5, 14010(l)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from an adjacent major arterial street		x	
Compatible Zoning [CCR, Title 5, 14010(m)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from the zoning surrounding the site		x	
Light, Wind, Air Pollution [CCR, Title 5, 14010(q)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from light, wind or air pollution		x	
Easements [CCR, Title 5, 14010(r)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from easements on or adjacent to the site which may restrict access or building placement?		x	The placement of buildings within the project area will need to be assessed in regards to their proximity to the easement located adjacent to the eastern and southern boundaries of the Site.
Border Zone Property [CCR, Title 5, 14010(t)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a significant disposal of hazardous waste within 2,000 ft. of the sit		x	
Cellular Phone Towers [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a cellular phone tower on or adjacent to the site		x	
Air Pollution [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a major transportation corridor (freeway, major rail line) within 500 feet		x	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a major stationary source of emissions within 500 fee		x	
Is the school on the Priority List of Schools Most at Risk from Air Pollution?		x	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a high-risk facility previously identified by OEHS		x	
Methane Zone			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards t students from a known methane zone or oil field		x	

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: Ulysses S. Grant High School

Selection Criteria	Yes	No	Comments
Oil Wells			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from an onsite oil well		x	
Airports			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from an airport within two nautical miles of the site		x	

Appendix E-1

Preliminary Environmental Assessment

PEA EQUIVALENT REPORT

Ulysses S. Grant Senior High School
13000 Oxnard Street
Los Angeles, CA 91401

CES Group
33353 Temecula Parkway, Suite 104 #333
Temecula, CA 92592
Tel: 951-808-8585
Fax: 951-848-9812

September 15, 2017

Prepared for:
Andrew Modugno
LAUSD-OEHS
333 S. Beaudry Avenue, 21-225-05
Los Angeles, California 90017

Reviewed by:
Skye Green, P.E. and James Keegan, P.E.

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APPENDICES

APPENDIX A……Analytical Reports

APPENDIX B…….Waste Manifest Report

LIST OF ABBREVIATIONS/ACRONYMS

ACM - asbestos containing material

AIN - Assessor's ID Number

APN – Assessor's parcel number

amsl - above mean sea level

bgs - below ground surface

Cal/EPA - California Environmental Protection Agency

CHHSL – California Human Health Screening Level

COPC - Chemical of potential concern

District - Los Angeles Unified School District

DTSC - Department of Toxic Substances Control

EPA – Environmental Protection Agency

ESA - Environmental Site Assessment

HASP - Site-specific health and safety plan

LAUSD - Los Angeles Unified School District

LBP - lead-based paint

OCPs - Organochlorine Pesticides

OEHS - Office of Environmental Health and Safety

PCBs - Polychlorinated Biphenyls

PEA-E - Preliminary Environmental Assessment Equivalent

PPE - Personal protective equipment

STLC – soluble threshold limit concentration

REC - Recognized environmental condition

TPH – Total petroleum hydrocarbons

1.0 EXECUTIVE SUMMARY

This Preliminary Environmental Assessment Equivalent (PEA-E) Document summarizes historical Site land use and outlines the approach utilized and data collected as part of the recently concluded assessment activities and Housekeeping Action conducted for Ulysses S. Grant High School (Site), located at 13000 Oxnard Street, Los Angeles, California 91401.

The Site is improved with approximately 10 one- and two-story permanent classroom or office buildings clad with brick and multiple one- and two-story bungalow classrooms throughout the school campus. The buildings include an administration building, a library, two gymnasiums, a cafeteria and lunch pavilion, a former auto shop building, agricultural fields and buildings, athletic fields, and classroom buildings. The property is a mixture of paved and unpaved areas, small planters, and athletic field space. The property is located within a largely residential and commercial area. The Site was developed on land which was previously used for agricultural purpose since prior to 1920. The agricultural land included several residential dwellings which were present on the Site. By 1962, the Site was developed with several buildings and playfields for the Ulysses S. Grant High School.

The primary objectives of this PEA-E were to assess shallow soil for potential environmental concerns identified in Waterstone Environmental's Phase I Environmental Site Assessment (ESA) conducted in July 2016, and to evaluate the overall Site health risk based on soil and soil gas analytical screening results for chemicals of potential concern (COPCs), including lead, arsenic, organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), and volatile organic compounds (VOCs).

The PEA-E field sampling activities presented herein were conducted on December 21, 22 and 23, 2016. Step-out samples were collected on January 16, 2017 and again on February 11, 2017. A total of 72 locations were advanced to a maximum depth of 2.5 feet below ground surface (bgs) using hand auger methods. Boring locations are shown on Figures 3 through 5. Soil samples were collected from 0.5, 1.5 and 2.5 feet and select samples were analyzed for COPCs. The soil matrix analytical results (Tables 3-7) indicate that elevated levels of lead were detected at one location during initial screening. Additional step-out borings were advanced to define this area of impact.

Based on the analytical results and comparisons with the screening levels, CES Group recommended that soil removal was necessary in the areas of borings S8, S9, S68, S69, and S73 to remove the lead- and arsenic-impacted soil from the School Site. The impacted soil was excavated and removed from the Site as part of a Housekeeping Action and was backfilled with certified clean soil from Hanson Aggregate. The analytical results from the soil samples were compared to the Total Threshold Limit Concentration (TTLC) and 10 times the Soluble Threshold Limit Concentration (STLC) for hazardous (Cal-hazardous) classification in California. In addition, the analytical results were compared to the 20 times the Toxicity Characteristic Leaching Procedure (TCLP) criteria

for federal or Resource Conservation and Recovery Act (RCRA) waste classification. Lead concentrations were subsequently below the TCLP criteria but above the STLC criteria. Based on this criteria, approximately 22.57 tons of excavated soil was characterized as California-hazardous (non-RCRA hazardous) material and was transported to South Yuma County Landfill for disposal.

2.0 INTRODUCTION

This Preliminary Environmental Assessment Equivalent (PEA-E) Document summarizes historical Site land use and outlines the approach utilized and data collected during site assessment activities at Ulysses S. Grant Senior High School, located at 13000 Oxnard Street, Los Angeles, CA 91401 (Site). The purpose of the assessment was to determine if the Site's surficial soils were impacted with contaminants of potential concern.

This report was prepared by CES Group on behalf of the Los Angeles Unified School District (LAUSD). The data provided in this report is based on information obtained during Waterstone Environmental's *Phase I Environmental Site Assessment* (Phase I) investigation of the Site. The Site location is shown on Figures 1 and 2.

2.1 Site Description

The Site is known as the Ulysses S. Grant Senior High School and is located at 13000 Oxnard Street, Los Angeles, California 91401. The Property is located within a residential area of the Valley Glen neighborhood south of Oxnard Street between Ethel Avenue and the Tujunga Wash. It is comprised of assessor parcel number (APN) 2341-024-900 and is 32 acres within Los Angeles County.

The Site is an operating high school and is improved with approximately 10 one- and two-story permanent classroom or office buildings clad with brick and multiple one- and two-story bungalow classrooms throughout the school campus. The buildings include an administration building, a library, two gymnasiums, a cafeteria and lunch pavilion, a former auto shop building, agricultural fields and buildings, athletic fields, and classroom buildings. The property is a mixture of paved and unpaved areas, small planters, and athletic field space. The property is located within a largely residential and commercial area.

Waterstone prepared a Phase I in July 2016 for the Site. According to the Phase I report, the Site was developed on land which was previously used for agricultural purposes prior to 1920. By 1962, the Site was developed with several buildings and playfields for Ulysses S. Grant High School. Demolition and renovations are planned for the buildings shown on Figure 2.

2.2 Background

Ulysses S. Grant Senior High School is an active high school campus. The southeastern portion of the property is occupied by the campus for Jack London High School, which is listed under the address 12924 Oxnard Street.

A summary of the former Site use/operations is provided as follows:

- The Site was developed on land which was previously used for agricultural purpose prior to 1920. The agricultural land included several residential dwellings which were present on the Site.
- By 1962, the Site was developed with several buildings and playfields for Ulysses S. Grant High School.
- Stockpiles of soil which were generated during project upgrades from 2008 through 2014 on the Site were sampled to determine their suitability for reuse per the LAUSD Section 01440 guidance. It was concluded that soil samples in four of the six sampling events contained organochlorine pesticides (OCPs) above their respective detection limits and were therefore unacceptable for reuse onsite or for export to another LAUSD site.
- The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room. Observations noted during an inspection included observed accumulation of gasoline residue on the shelves and floor. Compliance was achieved by 6/27/2014.

2.3 Regional Geology and Hydrogeology

According to the Phase I ESA report, the Site is situated near latitude 34.177452 (north) and longitude 118.416281 (west) at an approximate elevation of 673 feet above mean sea level. The topography of the Site and vicinity is generally flat, but slopes gently to the south, as shown in the Van Nuys, California USGS Topographic Map. The Site is not located within a 100-year or 500-year flood zone.

Regionally, the Site is located within the Transverse Ranges geomorphic province. This province is characterized by east-west trending geologic structures that include the east-west trending Santa Monica Mountains and the east-west trending active San Fernando fault zone. The trend of the San Fernando Valley reflects the overall trend of the Transverse Ranges, where major structural features exhibit an east-west orientation in contrast to the northwest-southeast trend that dominates in the rest of California. The San Fernando Valley is an area of compression between the San Gabriel Mountains on the northeast and the Santa Monica Mountains on the south.

According to the Phase I ESA report, no fault zones are identified on the Site or within one-mile of the Site. The Site is located within an Alquist-Priolo fault zone and the nearest fault is the Hollywood Fault which is 5.7 miles from the Site.

The Site is located within the San Fernando Valley Groundwater Basin (Basin No. 4-12). According to the California Department of Water Resources (Bulletin 118, updated 2003), this area is classified as:

> 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 the Simi Hills.

The water-bearing sediments consist of the lower Pleistocene Saugus Formation, Pleistocene and Holocene age alluvium. The groundwater in this basin is mainly unconfined with some confinement within the Saugus Formation in the western part of the basin and in the Sylmar and Eagle Rock areas. Groundwater flows generally from the edges of the basin toward the middle of the basin, then beneath the Los Angeles River Narrows into the Central Sub-basin of the Coastal Plain of Los Angeles Basin. In the northeastern part of the basin, groundwater moves from the La Crescenta area southward beneath the surface of Verdugo Canyon toward the Los Angeles River near Glendale, whereas the groundwater in the Tujunga area flows west following the Tujunga Wash around the Verdugo Mountains to join groundwater flowing from the west following the course of the Los Angeles River near Glendale.

Groundwater near the Site is expected to flow to the south. Based on monitoring reports prepared for a nearby property located approximately 2.2 miles northeast of the Site (11600 Sherman Way in North Hollywood [Ramboll Environ, 2016]), groundwater is expected to be encountered at approximately 260 feet below ground surface (bgs) with a perched zone at 60 feet bgs, and flows to the south.

2.4 Environmental Setting

A Phase I ESA was completed for the Site on July 25, 2016 by Waterstone Environmental, Inc. The purpose of the Phase I ESA was to identify recognized environmental conditions (RECs) to assist in the evaluation of historical land use, assess potential environmental impacts on- and off-Site, and determine if any potential environmental impacts may pose a threat to on-Site occupants, off-Site individuals and the environment. No other environmental investigations for the School property were located during the Phase I ESA. Information pertaining to the Site as determined by the Phase I ESA is summarized below.

2.4.1 School Property

The school Site was developed in 1962 with several buildings and athletic fields. The adjacent properties include residential properties to the north, the Tujunga Wash and Greenbelt to the east along with residential properties, athletic playfields and a stadium for the Los Angeles Valley College to the south, and the Los Angeles Valley College campus to the west. During the Phase I Assessment, the following observations were made:

- hazardous chemicals were observed at the property in the custodial/utility building including fuel, paint, film developing liquids, universal wastes, cleaning supplies, and expired chemicals awaiting disposal,
- Small volumes of chemicals for instructional use are stored between classrooms in Building 100,
- The school serves as a local fueling location for nearby schools. Three 55-

gallon drums of gasoline are stored on concrete without secondary containment. Minor staining was observed on the concrete floor,

- PCB-containing light ballasts removed from the school are stored in the custodial building awaiting disposal,
- An inactive paint spray booth was observed in Room 502 of the Industrial Arts building,
- Small amounts of pesticides, herbicides, and/or fertilizers may be present in the classroom and greenhouse associated with the agricultural area in the northwestern corner of the Site,
- Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classroom, and one is located outside Room 108 and is associated with the science classroom. One subsurface vault was observed in the boiler room but is believed to be no longer in use,
- Auto hoists are believed to be located in the auto shop, and
- Approximately 20 transformers are located throughout the school.

2.4.2 Site Redevelopment

LAUSD is proposing the following on approximately 10 acres within the School property (which are the subject of the Assessment):

- Remove the existing Library building, Administration building, Arts building, Agricultural classroom building and auxiliary structures, 27 relocatable classrooms, School Site Maintenance and Operations (M&O) Building, and two Industrial Arts Buildings,
- Construct a new Library, Administration and School Site M&O buildings, and approximately 40 classrooms and support spaces in permanent buildings,
- Seismically retrofit the Gymnasium, multi-purpose building and Classroom buildings (#100 and #200). Complete Infrastructure improvements for electrical, HVAC, and fire alarm, and
- Site wide infrastructure improvements including sanitary sewer, water, and electrical utilities. Site wide upgrades to remove identified and prioritized barriers to program accessibility. Upgrade landscaping, and hardscape in Agricultural area.

2.5 Discussion of Phase I ESA Items

The following RECs were identified during this assessment:

- Due to the original construction dates of the Site buildings (early 1960s), it is possible that lead-based paint was used during the construction or maintenance of the buildings. The buildings are primarily clad with brick, but portions of the outside façade include painted surfaces. It is considered likely that the paint on the buildings contains or formerly contained elevated lead concentrations. Due to

its slow deterioration with time, the paint typically flakes off and accumulates in the adjoining soils. This can result in elevated lead concentrations in the soil adjoining older buildings.

- Due to the original construction dates of the Site buildings (early 1960s), it is possible that OCPs were applied to soil surrounding the foundations of buildings constructed from wood for termite control.
- Due to the historical use of the Site as agricultural fields prior to construction of the school, it is possible that OCPs were applied to the historical orchards for weed and pest control.
- Arsenic in soil underneath asphaltic concrete (AC) pavement may be present due to LAUSD's former standard practice of applying herbicides containing this metal prior to paving.
- Three 55-gallon drums of gasoline are stored in the custodial/utility building on the Site. The drums are stored on a concrete floor in good condition with no secondary containment. The Site received a Notice to Comply dated 5/29/2014 from the Fire Department to clean and maintain the gasoline storage room following observations of accumulated gasoline residue on the shelves and floor.
- Two three-stage clarifiers were observed at the Site. One is located outside Room 300 and is associated with the arts classrooms, and one is located outside Room 108 and is associated with the science classrooms. It was not confirmed how often the clarifiers are cleaned, but clarifier sludge was noted as a waste in the Unified Program documents from the Fire Department files.
- Auto hoists which were installed during two separate time frames were historically located in the auto shop. It is believed that the auto hoists are no longer present, but the auto shop was not accessible during the inspection and no documentation was available to indicate that the hoists had been removed and/or the area has been sampled.

3.0 SAMPLING ACTIVITIES

The PEA-E field sampling activities presented herein were conducted on December 21, 22 and 23, 2016. Step-out samples were collected on January 16, 2017 and again on February 11, 2017. The sampling objective was to assess chemicals of potential concern (COPCs) identified for shallow soil and soil vapor at the Site. The COPCs include lead, arsenic, organochlorine pesticides (OCPs), petroleum hydrocarbons, volatile organic compounds (VOCs), and Polychlorinated biphenyls (PCBs). The sampling consisted of the collection of select at-depth soil and soil vapor samples to screen shallow soil and soil vapor for COPCs. Field observations of the soil samples did not provide any indications of staining and/or odors.

3.1 Objectives

The objectives of the assessment were to:

- Assess shallow soil for potential environmental concerns identified in the Phase I ESA for the Site,
- Evaluate the presence of lead-based paint in planned construction areas by

sampling exposed soil,

- Evaluate the presence of arsenic beneath asphalt in planned construction areas by sampling beneath the asphalt,
- Evaluate the presence of OCPs across the Site,
- Evaluate the presence of PCBs across the Site,
- Evaluate the overall Site health risk based on soil analytical screening results,
- Evaluate the overall Site health risk based on soil vapor screening results,
- Evaluate the presence of VOCs in the soil and soil gas in the gasoline storage area and where clarifiers were identified, and
- Confirm hydraulic hoist locations in the auto shop and evaluate the presence of hydraulic fluids, TPH, and/or PCBs

3.2 Utility Clearance

Prior to conducing intrusive Site activities, Spectrum Geophysical conducted a geophysical survey of the Site to locate detectable utilities and subsurface anomalies. The locations of the utilities were marked and boring locations were adjusted based on these results.

3.3 Health and Safety Plan

A Site-specific health and safety plan (HASP) was prepared for the field activities. The HASP addressed issues regarding chemical exposure, personal protective equipment (PPE), physical and biological hazards that might be expected at the Site, emergency response plan, and route to the nearest hospital. Site personnel engaged in field activities were required to conduct daily tailgate safety meetings acknowledging the potential health concerns in this plan. Subcontractors were responsible for their own HASP during field activities.

3.4 Field Observations

During sampling activities, the presence of the two in-ground hydraulic hoists inside of the auto shop building was visually confirmed and a third hoist was discovered outside the building. There was no evidence of any surficial staining in the vicinity of the hoists. An additional three-stage clairifer was identified outside of the auto shop building under the adjacent canopy. No surficial staining was observed in the vicinity of the clarifier.

3.5 Field Procedures

Collection of environmental samples of high integrity is important to the quality of chemical data to be generated. To this end, strict field procedures have been developed. General descriptions of field methods that were employed at various locations during various phases of the field investigation are described below.

3.5.1 Sample Collection and Analysis

Soil borings were advanced by CES Group personnel using hand-auger tools. Asphalt or concrete pavement was cored by Excell Excavating prior to advancing the borings. Shallow borings were advanced to a maximum total depth of 2.5 feet below ground surface (bgs). Soil samples were collected at 0.5 feet, 1.5 feet, and 2.5 feet bgs. All field work was overseen by a California Professional Engineer.

Specific soil sampling approaches are outlined below:

- Discrete soil samples were obtained from 0.5 feet, 1.5 feet, and 2.5 feet bgs depths from each boring. The shallow soil samples were initially analyzed by the laboratory and the remaining samples were held pending the analytical results. Deeper samples were analyzed if warranted based on shallow results. Soil samples were collected in laboratory supplied 8-ounce glass jars or other appropriate containers for the analysis.
- Select soil samples were analyzed for lead, arsenic, PCBs, OCPs, TPH, or VOCs based on the location of the boring. Tables 1 and 2 below shows the sample IDs and the analysis that each sample was submitted for. Soil analytical results are shown in Tables 3 through 7.
- Step-out samples were collected in areas where the sampling results exceeded the screening levels. Step-out samples were collected in the area of boring S8 for lead due to the concentration exceeding 80 mg/kg. Step-out samples were collected from locations surrounding the nearby buildings where soil was exposed until the area was considered defined in all directions.
- Field duplicate samples were collected during the PEA-E sampling activities at an approximate ratio of one duplicate sample for every 10 original samples. The duplicate sample was collected immediately after the original sample. Due to the heterogeneity of the soil matrix the results for duplicate samples may vary from the results of the original sample. The duplicate samples were analyzed for the same parameters as the original samples collected from the same boring and similar interval.

Soil vapor samples were collected from four locations at two depths. The soil vapor sample locations were adjacent to each of the clarifiers, the gasoline storage area, and adjacent to the clarifier identified near the auto shop. The following sampling procedures were utilized:

- The soil vapor sampling strategy for VOCs followed the guidance outlined in the Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) (2015) Advisory – Active Soil Gas Investigations guidance document. Soil vapor analytical results are shown in Table 8.
- Soil vapor samples were collected using a 1 to 2-inch diameter sample probe equipped with an expendable steel drive point to a depth of 5 and 10 feet below ground surface (bgs). Once at depth, the probe was extracted slightly, opening the sampling tip and exposing the sampling ports. A ¼ or ⅛ inch diameter nylon tube was run through the center of this probe to ground surface

where it attached to the collection device. Hydrated bentonite was placed around the probe at ground surface to inhibit surface air infiltration. The system was allowed to equilibrate for 20 to 30 minutes. Three purge volumes were used. Tracer gas procedures were then applied for potential leak detection. A soil vapor sample was collected at a nominal 0.2 liter/min rate through a flow restrictor into a 0.40 liter Summa Cylinder.

- During soil gas sampling, a tracer gas was used on sampling equipment connections and at ground surface where sample tubes enter. The tracer substance was soaked into a paper towel and placed in a small dish. The dish was placed under a plastic sheet that covered the soil gas sampling point, all tubing connections, and the sample collection cylinder. A minimum vacuum in the sample collection cylinder of 5 inches of mercury was maintained after sampling.

Table 1: Sample Locations, Sample Depths, and Chemical Analyses

Area of Concern	Boring IDs	Soil Sampling Depths (ft, bgs)	Chemical Analysis
Gasoline Storage Area	S1	2.5', 5', 10'	TPH(g,d,o) (8015B) VOCs (8260B)
Clarifiers	S2, S3	5', 10'	VOCs (8260B) Title 22 Metals (6010B/7471A)
Agricultural fields	S4	Surface (0.5')	OCPs by EPA Method 8081A.
		1.5', 2.5'	Archive
Historical lead-based paint or termicide usage on buildings/portables to be removed	S5 through S58, S50, S65 and S66	Surface (0.5')	OCPs (8081A) (Composite) Lead (6010B)
		1.5', 2.5'	Archive
Historical arsenic herbicide usage below paved areas	S5 through S57 and S65 (odd sample numbers only)	Surface (0.5')	Arsenic (6020)
		1.5', 2.5'	Archive
Historic Auto Shop Auto Hoist Area and Clarifier	S59 through S64 and S50	5', 10'	TPH (d,o) (8015B) Title 22 Metals (6010B/7471A) PCBs (8082)

Table 2
Soil Vapor Sampling and Analysis Summary Table
Ulysses S. Grant High School
Los Angeles, CA

Area of Concern	Boring IDs	Soil Sampling Depths	Chemical Analysis
Gasoline Storage Area	SG-1	5', 10'	VOCs (8260B)
Clarifiers	SG-2	5', 10'	VOCs (8260B)

	SG-3	5', 10'	VOCs (8260B)
Historic Auto Shop and Clarifier	SG-4	5', 10'	VOCs (8260B)

All samples were sent to a State of California certified environmental laboratory. Soil samples were analyzed for the following compounds:

- Arsenic by EPA Method 6020,
- Lead by EPA Method 6010B,
- OCPs by EPA Method 8081A,
- PCBs by EPA Method 8082,
- VOCs by EPA Method 8260B,
- TPH by EPA Method 8015M,
- Mercury by EPA Method 7471A

Soil vapor samples were analyzed for the following compounds:

- VOCs by EPA Method 8260B/TO-15

3.5.2 Sample Handling and Storage

In the field, each sample container was marked with their unique sampling location number, date and time of sample collection. Each of the sample containers were wiped with clean paper towels, sealed in a plastic bag, and securely packed and preserved in a cooler on ice, in preparation for delivery to the laboratory.

3.5.3 Sample Custody

An entry was made on a chain-of-custody form supplied by the laboratory for each sample that was submitted to the laboratory for analysis. The information recorded included the sampling date and time, sample identification number, matrix type, requested analyses and methods, preservatives, and the sampler's name. Sampling team members maintained custody of the samples until they were relinquished to laboratory personnel. The cooler was appropriately sealed before it was relinquished to laboratory personnel. The chain-of-custody form accompanied the samples from the time of collection until received by the laboratory. Each party in possession of the samples signed the chain-of-custody form signifying receipt.

Collected soil samples were transported using standard chain-of-custody protocol to Enthalpy Analytical Inc. in Orange, California, a California-certified laboratory. Upon receipt, the laboratory inspected the condition of the sample containers and reported the information on chain-of-custody or similar form.

A copy of the original completed chain-of-custody form was provided by the laboratory along with the report of results. Appendix A contains copies of the laboratory analytical reports.

3.5.4 Equipment Decontamination

Any equipment that came into contact with potentially contaminated soil or water was

decontaminated consistently to assure the quality of samples collected. Disposable equipment intended for one-time use was not decontaminated, but was packaged for appropriate disposal. Decontamination occurred prior to and after each use of a reusable piece of equipment. The sampling devices used (e.g., hand auger) were decontaminated using the following triple rinse procedures:

- Non-phosphate detergent and tap water scrub, using a brush if necessary;
- Tap water rinse; and
- Final deionized/distilled water rinse.

3.6 Laboratory Quality Control

The laboratory data package provided includes quality control sample results for blanks, matrix spike/matrix spike duplicates, surrogate recoveries, and laboratory control samples/laboratory control sample duplicates, as specified by the method. The laboratory also provided narrative stating whether quality control guidelines were met and listed discrepancies and laboratory data qualifiers. The laboratory reports containing the quality control results are included in Appendix A.

3.7 Abandonment of Soil Borings

Upon completion of sampling, all soil borings were backfilled with clean soil and compacted. Boring locations were resurfaced with concrete dyed black or cold patch asphalt to match existing asphalt hardscape, as applicable.

3.8 Investigation Derived Waste Management

In the process of collecting environmental samples during the PEA-E activities, different types of potentially contaminated Investigation Derived Waste (IDW) were generated that included used PPE, disposable sampling equipment, excess soil cuttings, and decontamination fluids.

Listed below are the procedures that were followed for handling the IDW:

- Used PPE and disposable equipment were double bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and could be sent to a municipal landfill.
- Remaining soil cuttings (not used as backfill) and decontamination wastewater were placed in US Department of Transportation (DOT)-approved 55-gallon drums. The drums were labeled and sealed, pending receipt of analytical results, waste profiling and off-Site disposal.

Three 55-gallon drums containing IDW were generated during the PEA-E. Two 55-gallon drums contained excess soil cuttings from the hand-auger borings while the third drum contained sample equipment decontamination water. Grab samples were collected directly from the 55-gallon drums containing IDW after the completion of the soil borings. IDW samples were analyzed for the following compounds:

- California Code of Regulations (CCR) Title 22 Code of Administrative Manual (CAM) 17 metals (CAM 17 metals) by EPA Method 6010B/7471A,
- OCPs by EPA Method 8081A, and
- Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and Oil Range Organics (ORO) by EPA Method 8015B.
- VOCs by EPA Method 8260B

The PEA-E and IDW sample results indicate that the IDW is classified as non-hazardous waste. The three drums were transported to Soil Safe in Adelanto, California for disposal. Appendix B provides waste disposal documentation.

4.0 RESULTS

The observed soil was generally poorly graded sand and silty sand. The soil was brown in color with no chemical odor and no visible signs of staining. Groundwater was not encountered in any of the boreholes during the sampling activities. Duplicate samples showed similar results to the original samples. Field procedures were conducted in compliance with the above procedures. Laboratory procedures were in compliance with the method requirements, including acceptable reporting limits, laboratory selection, and laboratory reporting of quality control information. All borings were installed as planned except for borings S43 and S46, which were not sampled due to physical restrictions. Acceptable sensitivity was achieved by selecting analytical methods with reporting limits suitable for comparison with action levels. Overall, the dataset is of acceptable quality. As such, the data set is considered acceptable for use in accessing human health risk at the Site. The following section provides the sample analytical results. Tables showing screening values that were used as points of comparison for the analytical results are also included.

Soil samples were collected from a total of 64 boring locations during the initial soil sampling. Three samples were identified as having elevated concentrations above the trigger level value of 50 mg/kg for lead. Two of these samples (borings S8 and S9) exceeded the LAUSD guideline for additional sampling of 80 mg/kg with values of 335 and 106 mg/kg, therefore step-out borings were necessary. None of the arsenic concentrations exceeded screening levels in the initial samples screened although one of the step-out locations (boring S69) showed elevated arsenic concentrations.

Step-out borings were completed adjacent to borings S8 and S9 in areas where exposed soil was present. Areas with concrete cover were not sampled during step-out sampling.

4.1 Soil Analytical Results

In summary, the soil matrix analytical results indicate the following:

- OCPs were detected in low levels in 29 of the samples that were analyzed. The sample from boring S9 showed the highest concentration of OCPs at 0.450 mg/kg Chlordane. All OCP concentrations were below the EPA Region 9 Regional Screening Levels (RSLs).

- Lead was detected at concentrations below the EPA Region 9 Regional Screening Level (RSL) of 400 mg/kg (RSL for soil considering residential land use) (EPA, 2015) and below the DTSC-modified screening level of 80 mg/kg (screening level for use in human health risk assessments) (DTSC, 2016) in all soil samples analyzed except borings S8, S9, and step-out sample borings S68 and S73. Lead was detected at 335 mg/kg in S8-0.5' and 106 mg/kg in S9-0.5'. The deeper samples from boring S8 were below screening levels. The deeper samples from boring S9 showed elevated lead concentrations above 50 mg/kg but below 80 mg/kg. The soluble threshold limit concentration (STLC) for boring S9 was above California-hazardous levels.
    - The results from step-out borings in the vicinity of borings S8 and S9 indicated that concentrations exceeded the DTSC-modified screening level of 80 mg/kg at borings S68 and S73 at a depth of six inches. The step-out results from borings S68 and S73 were 126 mg/kg and 110 mg/kg, respectively. The deeper samples from borings S68 and S73 were below screening levels. The soil at sample S68-05' exceeded the California-hazardous waste levels based on the STLC result. None of the step-out samples exceeded the EPA Region 9 RSL of 400 mg/kg.
- Arsenic concentrations did not exceed the DTSC-adopted background arsenic concentration of 12 mg/kg (DTSC, 2008) in any of the samples that were analyzed with the initial sampling.
    - Arsenic concentrations exceeded 12 mg/kg in the step-out sample from boring S69 at a maximum concentration of 22.9 mg/kg at 2.5 feet.
- PCB concentrations were not detected above the method reporting limit in any of the samples that were analyzed.
- Total petroleum hydrocarbons were detected at low levels in the six samples collected from the area of the auto hoists and boring S1 located outside of the hazardous waste storage area. The maximum concentration was 21 mg/kg TPH C28-C40 (oil range) from boring S1 at a depth of 10 feet.
- VOCs were detected at low levels in each of the four samples that were analyzed for borings (S1-S4) located adjacent to the two clarifiers, hazardous waste storage, and auto hoist area. The maximum benzene concentration was 1.7 ug/kg.

Soil analytical results are shown in Tables 3 through 7.

4.2 Soil Vapor Analytical Results

In summary, the soil vapor matrix analytical results indicate the following:

- Soil vapor concentrations indicated low level VOCs in each of the four locations and eight samples analyzed. All sample results were below the California Human Health Screening Levels (CHHSLs) for shallow soil gas in residential scenarios.

Soil vapor analytical results are shown in Table 8.

5.0 HUMAN HEALTH SCREENING EVALUATION

Soil

The concentrations of OCPs detected were below published regulatory screening levels. Lead was detected above 80 mg/kg at four soil sample locations from borings (S8, S9, S68, and S73) at a maximum concentration of 335 mg/kg. The STLC value from boring S9 at 0.5 feet and 2.5 feet and from boring S68 indicate that the soil in this area is designated as California-regulated hazardous waste soil. Arsenic was detected above the DTSC-adopted background arsenic concentration for Southern California of 12 mg/kg (DTSC, 2008) in step-out boring S69. PCBs were not detected above the method reporting limit in any of the samples that were analyzed. Petroleum hydrocarbons and VOCs were detected in low concentrations. Soil vapor concentrations indicated low level VOCs.

The Site has been defined for both arsenic and lead. Upon the removal of the lead- and arsenic-impacted soil during Housekeeping Action described in this report, the remaining soil represents soil that is below detection or regulatory screening levels. The human health risk after soil removal will be typical of a similar school Site operation in the State of California for these constituents.

Soil Vapor

The soil vapor analytical results indicate that all sample results were below the CHHSL value for shallow soil gas in residential scenarios. The human health risk will be typical of a similar school Site operation in the State of California for these constituents.

6.0 COMMUNITY PROFILE

6.1 Community Demographics

A brief summary of the community demographics for the zip code 91401 in Los Angeles County according to the 2010 US Census (factfinder.census.gov) is as follows:

Total population: 39,285

Male: 19,613

Female: 19,672

Median Age: 36.0

Population 18 years and over: 30,572

Total housing units: 15,289

Average household size: 2.70

Population by race: White: 25,645

Hispanic or Latino: 16,675

Asian: 2,135

Black or African American: 1,864

6.2 Local Participation and Involvement

A fact sheet, in the form of a flyer, was produced in English and Spanish (double-sided flyer) to provide members of the community with details regarding the PEA-E investigation including who would perform the work, project schedule, when and where the results of the investigation would be posted, and who to contact regarding additional information. This work notice flyer was handed out to all high school staff, mailed to all parents of students, was distributed to all residences within 500 feet of the school Site, and was handed out to all line-of-sight properties, and posted along the boundary fence of the school property.

No specific environmental concerns or issues have been brought to the District's attention regarding the onsite activities at this time. In terms of project visibility, the onsite work took place during a school shut down (weekends and holiday break) to minimize any interference with school activities. Line-of-site neighbors, school staff, parents and interested community members were given copies of the work notice flyer. As of the writing of this report, CES Group is unaware of environmental concerns or issues with relation to neighboring sites.

7.0 OPINION OF ENVIRONMENTAL PROFESSIONAL

Based on the PEA-E sampling results, all areas of impact have been identified and adequately characterized and defined both laterally and vertically. CES Group concluded that soil removal was necessary in the vicinity of borings S8, S9, S67, S68, S69, and S73 to remove the lead- and arsenic-impacted soil from the Site. LAUSD concurred and approved the soil removal as part of a Housekeeping Action. Removal of the impacted soil will bring the Site to a level where no further action can be warranted.

8.0 LIMITED SOIL EXCAVATION – HOUSEKEEPING ACTION

Based on the PEA-E sampling results, limited soil excavation was performed to remove the impacted soil from the Site as part of a Housekeeping Action. The areas surrounding Borings S8, S9, S67, S68, S69, and S73 were determined to be areas where the soil was impacted by lead and were therefore slated for excavation and removal. Arsenic exceeded the DTSC-adopted background arsenic concentration of 12 mg/kg in one boring (S69). Confirmation sampling was conducted to verify that the extent of the impacted soil had been removed from the Site. The excavation was conducted by hand using shovels due to the proximity to the building and the presence of trees and utilities. The excavated soil was placed on visqueen in the parking lot area and covered with visqueen pending removal from the Site. Temporary fencing was placed around the stockpile and excavation areas to limit unauthorized contact with the stockpile and entry to the work areas.

Soil samples were collected from the sides and bottom of the completed excavation area to confirm that the extent of impacted soil was removed. A total of 35 samples were

collected in glass jars for lead analysis using EPA Method 6010B. In areas where the lead concentration exceeded the DTSC School Screening Level of 80 mg/kg, additional excavation was conducted and additional samples were collected to confirm that the edge of the impacted soil had been reached. Additional stepout samples were collected on four dates after additional excavation occurred. Fifteen samples were collected on July 13, nine samples were collected on July 21, four samples were collected on July 26, four samples were collected on July 31, and three samples were collected on August 4. The sample with the highest concentration was analyzed for its soluble threshold limit concentration (STLC) based on a lead result of 274 mg/kg. This sample was also analyzed for its Toxicity Characteristic Leaching Potential (TCLP). The analytical results are shown in Table 9.

The analytical results from the soil samples were compared to the Total Threshold Limit Concentration (TTLC) and 10 times the Soluble Threshold Limit Concentration (STLC) for hazardous (Cal-hazardous) classification in California. In addition, the analytical results were compared to the 20 times the Toxicity Characteristic Leaching Procedure (TCLP) criteria for federal or Resource Conservation and Recovery Act (RCRA) waste classification. Lead concentrations were subsequently below the TCLP criteria but above the STLC criteria. Therefore, the excavated soil was characterized as California-hazardous (non-RCRA hazardous) material and was transported to South Yuma County Landfill (Appendix B).

A total of 22.57 tons of soil was removed from the Site on August 9, 2017 by Excell Excavating. All excavation areas were backfilled with certified clean soil from Hanson Aggregate.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The primary objectives of this PEA-E were to assess shallow soil and soil vapor for potential environmental concerns identified in the Phase I ESA for the Site; and to evaluate the overall Site health risk based on soil analytical screening results for COPCs (lead, arsenic, OCPs, PCBs, TPH, and VOCs).

The soil analytical results indicate that OCPs detected in all 29 of the soil samples that were analyzed were below Regional Screening Levels. Lead was detected above the DTSC-modified screening level of 80 mg/kg in two original soil borings (S8 and S9) and two step-out boring locations (S68 and S73). The STLC for boring locations S9 and S68 indicated that the soil in these areas is California-regulated hazardous waste. Arsenic exceeded the DTSC-adopted background arsenic concentration of 12 mg/kg in one boring (S69). Additional soil samples were collected to determine excavation limits. PCBs were not detected above the method reporting limit in any of the samples that were analyzed. Low-level petroleum hydrocarbons (oil range) were detected in the samples collected from the clarifiers, the hazardous waste storage area, and the auto hoist area. The concentrations were low and consistent at all depths. Low-level VOCs, below Regional Screening Levels, were identified in the samples collected from the clarifier area. All VOC concentrations were below Regional Screening Levels. Based on soil analytical results and step-out sampling results, the area is delineated and the extent of impacted soil was determined.

Soil vapor concentrations indicated low level VOCs in each of the four locations and eight samples analyzed. All sample results were below the California Human Health Screening Levels for shallow soil gas in residential scenarios were below CHHSLs in all samples.

Based on the analytical results and comparisons with the screening levels, CES Group recommended that soil removal as part of a Housekeeping Action was necessary in the area of borings S8, S9, S68, S69, and S73 to remove the lead- and arsenic-impacted soil to a depth of 1-3 feet from the Site. LAUSD concurred and approved the removal of lead- and arsenic-impacted soil as part of a Housekeeping Action. Additional soil samples were collected to determine excavation limits. The analytical results from the soil samples were compared to the TTLC and 10 times the STLC for hazardous (Cal-hazardous) classification in California. In addition, the analytical results were compared to the 20 times the TCLP criteria for federal or RCRA waste classification. Lead concentrations were subsequently below the TCLP criteria but above the STLC criteria. Based on this criteria, the excavated soil was characterized as California-hazardous (non-RCRA hazardous) material and was transported to South Yuma County Landfill (Appendix B). A total of 22.57 tons of impacted soil was removed from the Site on August 9, 2017 by Excell Excavating. All excavation areas were backfilled with certified clean soil from Hanson Aggregate.

10.0 LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. Opinions, conclusions, and recommendations contained in this report apply to conditions existing when the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Where subsurface exploratory work, monitoring, and/or testing was performed, our professional opinions and conclusions are based in part on interpretation of data from discrete sampling or measurement locations that may not represent actual conditions at un-sampled or un-measured locations. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of the services. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when the services were performed. We do not warranty the accuracy of information supplied by others, or the use of segregated portions of this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. CES Group should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

CES Group's professional opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analyses data. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the

observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between and beyond the sampling locations. Variations in soil conditions likely exist beyond the points explored in this assessment and related excavation.

11.0 REFERENCES

CalEPA, DTSC, LARWQCB, SFRWQCB, 2015, *Advisory Active Soil Gas Investigations*, July 2015.

Department of Toxic Substances Control, 2004, *Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, 2004

LAUSD, Section 01 4524 Environmental Import/Export Materials Testing, 2011.

USEPA, 2005, *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, January 2005.

USEPA, 2010, Regional Screening Level Summary Table

Waterstone Environmental, Inc., *Phase I Environmental Assessment Report*, July 25, 2016.

Table 3
Soil Analytical Results - Lead and Arsenic
Grant High School

SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)	Lead STLC (mg/L)	Lead TCLP (mg/L)
S4-0.5'	12/23/2016	NA	NA	NA	NA
S5-0.5'	12/23/2016	16.7	6.76	NA	NA
S6-0.5'	12/23/2016	44.6	NA	NA	NA
S7-0.5'	12/23/2016	42.0	6.96	NA	NA
S7-0.5' Dup	12/23/2016	38.9	5.79	NA	NA
S8-0.5'	12/23/2016	335	NA	41.3	0.681
S8-1.5'	12/23/2016	6.18	NA	NA	NA
S9-0.5'	12/23/2016	106	10.7	6.06	0.032J
S9-1.5'	12/23/2016	65.5	NA	2.88	NA
S9-2.5'	12/23/2016	62.0	NA	7.40	ND
S10-0.5'	12/23/2016	49.8	NA	NA	NA
S11-0.5'	12/23/2016	14.2	3.39	NA	NA
S12-0.5'	12/23/2016	1.72	NA	NA	NA
S13-0.5'	12/23/2016	3.69	1.393J	NA	NA
S14-0.5'	12/23/2016	6.38	NA	NA	NA
S15-0.5'	12/23/2016	1.38	3.14	NA	NA
S16-0.5'	12/23/2016	13.1	NA	NA	NA
S17-0.5'	12/23/2016	11.2	5.06	NA	NA
S17DUP-0.5'	12/23/2016	10.9	7.04	NA	NA
S18-0.5'	12/23/2016	32.1	NA	NA	NA
S19-0.5'	12/23/2016	15.6	1.999J	NA	NA

SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)
S20-0.5'	12/23/2016	12.7	NA
S20DUP-0.5'	12/23/2016	9.46	NA
S21-0.5'	12/23/2016	27.5	2.37J
S22-0.5'	12/23/2016	16.9	NA
S23-0.5'	12/23/2016	6.71	1.852J
S24-0.5'	12/23/2016	17.8	NA
S25-0.5'	12/23/2016	27.1	1.868J
S26-0.5'	12/23/2016	5.48	NA
S27-0.5'	12/23/2016	14.2	3.14
S28-0.5'	12/23/2016	10.6	NA
S29-0.5'	12/23/2016	6.82	2.99J
S30-0.5'	12/23/2016	12.5	NA
S31-0.5'	12/23/2016	12.1	2.75J
S32-0.5'	12/23/2016	10.4	NA
S33-0.5'	12/23/2016	9.46	3.00
S34-0.5'	12/21/2016	0.93	NA
S35-0.5'	12/21/2016	5.78	NA
S36-0.5'	12/21/2016	13.4	NA
S37-0.5'	12/21/2016	ND	6.25
S38-0.5'	12/21/2016	21.1	NA
S39-0.5'	12/21/2016	3.18	1.439J

SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)	Lead STLC (mg/L)
S40-0.5'	12/21/2016	16.6	NA	NA
S41-0.5'	12/21/2016	13.8	7.05	NA
S42-0.5'	12/21/2016	45.4	NA	NA
S44-0.5'	12/21/2016	5.62	NA	NA
S45-0.5'	12/21/2016	6.45	NA	NA
S47-0.5'	12/21/2016	56.6	NA	2.86
S47-1.5'	12/21/2016	8.20	NA	NA
S48-0.5'	12/21/2016	32.9	NA	NA
S49-0.5'	12/21/2016	11.9	NA	NA
S50/SG4-0.5'	12/21/2016	0.74	NA	NA
S51-0.5'	12/21/2016	8.91	NA	NA
S52-0.5'	12/23/2016	5.22	NA	NA
S53-0.5'	12/21/2016	31.0	NA	NA
S53DUP-0.5'	12/21/2016	27.9	NA	NA
S54-0.5'	12/21/2016	30.4	NA	NA
S55-0.5'	12/23/2016	2.31	5.44	NA
S56-0.5'	12/21/2016	25.1	NA	NA
S57-0.5'	12/21/2016	10.1	NA	NA
S58-0.5'	12/21/2016	28.9	NA	NA
S65-0.5'	12/23/2016	3.34	2.69J	NA
S66-0.5'	12/23/2016	27.4	NA	NA

Table 3
Soil Analytical Results - Lead and Arsenic
Grant High School

SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)	Lead STLC (mg/L)	Lead TCLP (mg/L)	SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)	SAMPLE LOCATION	Date	6010B Lead (mg/kg)	6020 Arsenic (mg/kg)	Lead STLC (mg/L)
Step Out Borings														
S67-0.5'	1/16/2017	50.2	5.04	3.02	NA	S69-1.5'	1/16/2017	27.5	12.8	S72-0.5'D	2/11/2017	32.6	NA	NA
S67-1.5'	1/16/2017	39.1	NA	NA	NA	S69-2.5'	1/16/2017	NA	22.9	S73-0.5'	2/11/2017	110	NA	4.15
S68-0.5'	1/16/2017	126	5.79	7.44	0.061	S70-0.5'	1/16/2017	22.0	5.06	S73-0.5'	2/11/2017	TCLP = 0.314		
S68-1.5'	1/16/2017	10.9	NA	NA	NA	S71-0.5'	2/11/2017	21.6	6.38	S73-1.5'	2/11/2017	16.0	NA	NA
S69-0.5'	1/16/2017	54.4	20.0	2.97	NA	S72-0.5'	2/11/2017	10.6	NA	S74-0.5'	2/11/2017	43.1	NA	NA
Hazardous Waste Levels		1,000	500	5	5	--	--	1,000	500	--	--	1,000	500	5
Trigger Value (10xSTLC)		50	50	--	--	--	--	50	50	--	--	50	50	--
CHHSLs Residential Soil		150	0.07	--	--	--	--	150	0.07	--	--	150	0.07	--
CHHSLs Industrial Soil		3,500	0.24	--	--	--	--	3,500	0.24	--	--	3,500	0.24	--

Notes:
mg/kg = milligrams per kilogram
NA = not analyzed
STLC = soluble threshold limit concentration
TCLP = Toxicity characteristic leaching potential

Table 4
Soil Analytical Results - VOCs, TPH, and Mercury
Grant High School

SAMPLE LOCATION	Date	VOCs 8260B						7471A	8015M	8015M	8015M
		Acetone (ug/kg)	Benzene (ug/kg)	Bromo-methane (ug/kg)	Dichloro-diflouro-methane (ug/kg)	MEK (ug/kg)	toluene (ug/kg)	Mercury (mg/kg)	TPH C8-C10 (mg/kg)	TPH C10-C28 (mg/kg)	TPH C28-C40 (mg/kg)
S1/SG1-2.5'	12/22/2016	13J	1.7J	ND	2.7J	1.1J	0.43J	NA	ND	ND	15
S1/SG1-5'	12/22/2016	ND	0.76J	1.4J	13	ND	0.40J	NA	ND	ND	14
S1/SG1-10'	12/22/2016	ND	0.36J	ND	ND	ND	0.26J	ND	ND	ND	21
S2/SG2-5'	12/22/2016	ND	0.46J	ND	ND	ND	0.32J	ND	NA	NA	NA
S2/SG2-10'	12/22/2016	ND	0.59J	ND	ND	ND	0.26J	ND	NA	NA	NA
S3/SG3-5'	12/22/2016	16J	1.6J	ND	ND	1.1J	0.53J	ND	NA	NA	NA
S3/SG3-10'	12/22/2016	ND	0.44J	ND	ND	ND	0.28J	ND	NA	NA	NA
S50/SG4-5'	12/22/2016	ND	0.39J	ND	ND	ND	0.25J	ND	ND	ND	19
S50/SG4-10'	12/22/2016	ND	0.47J	ND	2.6J	ND	0.34J	ND	ND	ND	19
S59-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	20
S59-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	15
S60-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	14
S60-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	19
S61-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	19
S61-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	15
S62-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	17
S62-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	17
S63-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	16
S63-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	13
S64-5'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	12
S64-10'	12/22/2016	NA	NA	NA	NA	NA	NA	ND	ND	ND	12

Notes:
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
NA = not analyzed
ND = not detected

Table 5
Soil Analytical Results - Title 22 Metals
Grant High School

SAMPLE LOCATION	Date	Title 22 Metals Method 6010B															
		Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Molyb-denum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
S2/SG2-5'	12/22/2016	ND	1.10	97.0	ND	ND	8.85	6.71	8.53	ND	ND	4.82	ND	ND	ND	21.2	24.3
S2/SG2-10'	12/22/2016	ND	0.90J	66.9	ND	ND	7.60	5.72	6.31	ND	ND	3.68	ND	ND	ND	20.7	20.1
S3/SG3-5'	12/22/2016	ND	1.10	172	ND	0.50	19.7	14.1	19.8	0.90	ND	11.6	ND	ND	ND	41.2	47.4
S3/SG3-10'	12/22/2016	ND	0.82J	66.1	ND	ND	6.08	5.73	5.97	ND	ND	3.26	ND	ND	ND	18.7	18.3
S50/SG4-5'	12/22/2016	ND	1.60	174	ND	0.39J	17.3	13.2	19.0	0.40J	ND	10.4	1.53	ND	ND	36.8	51.5
S50/SG4-10'	12/22/2016	ND	1.25	87.4	ND	ND	9.76	7.53	8.43	ND	ND	4.62	ND	ND	ND	25.8	24.9
S59-5'	12/22/2016	ND	1.12	162	ND	0.49J	16.6	12.6	17.7	ND	ND	9.94	1.68	ND	ND	33.7	43.1
S59-10'	12/22/2016	ND	0.68J	77.7	ND	ND	6.67	6.04	6.59	ND	ND	3.80	ND	ND	ND	19.1	20.3
S60-5'	12/22/2016	ND	0.83J	180	ND	0.78	19.5	14.6	20.6	0.46J	ND	11.7	1.36	ND	ND	37.9	49.2
S60-10'	12/22/2016	ND	0.58J	62.5	ND	ND	5.99	7.34	6.76	ND	ND	3.92	ND	ND	ND	19.4	18.3
S61-5'	12/22/2016	ND	1.14	190	ND	0.49J	19.1	14.4	20.3	0.47J	ND	11.4	1.12	ND	ND	38.8	48.6
S61-10'	12/22/2016	ND	0.79J	90.2	ND	ND	6.51	5.16	5.27	0.75	ND	3.30	ND	ND	ND	18.1	18.6
S62-5'	12/22/2016	ND	0.61J	167	ND	0.57	18.7	13.8	18.3	ND	ND	10.7	ND	ND	ND	36.4	45.8
S62-10'	12/22/2016	ND	0.56J	49.7	ND	ND	5.25	4.18	7.28	ND	ND	2.55	ND	ND	ND	14.3	13.8
S63-5'	12/22/2016	ND	1.08	84.0	ND	ND	9.32	7.63	9.24	ND	ND	4.40	ND	ND	ND	23.2	25.0
S63-10'	12/22/2016	ND	0.98J	67.3	ND	ND	6.72	5.95	8.71	ND	ND	3.85	ND	ND	ND	20.2	19.2
S64-5'	12/22/2016	ND	0.97J	155	ND	0.48J	15.5	12.0	16.8	ND	ND	8.90	0.83J	ND	ND	33.9	38.3
S64-10'	12/22/2016	ND	0.55J	60.8	ND	ND	4.03	4.64	6.40	ND	ND	2.37	ND	ND	ND	14.7	16.0

Notes:
mg/kg = milligrams per kilogram
NA = not analyzed
ND = Not detected

Table 6
Soil Analytical Results - OCPs
Grant High School

SAMPLE LOCATION	Date	8081A Organochlorine Pesticides (OCPs)									
		4,4'-DDD (mg/kg)	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Chlordane (mg/kg)	d-BHC (mg/kg)	Dieldrin (mg/kg)	Endrin (mg/kg)	Heptachlor (mg/kg)	Heptachlor epoxide (mg/kg)	Toxaphene (mg/kg)
S4-0.5'	12/23/2016	ND	0.003J	0.002J	0.024J	ND	0.001J	ND	ND	ND	ND
S5-0.5'	12/23/2016	ND	0.001J	0.001J	ND	ND	ND	ND	ND	ND	ND
S6-0.5'	12/23/2016	0.001J	0.001J	0.003J	ND	ND	ND	ND	0.001J	ND	ND
S7-0.5'	12/23/2016	0.003J	0.002J	0.002J	0.027J	ND	ND	ND	ND	ND	ND
S7-0.5' Dup	12/23/2016	0.006	0.005	0.003J	0.039J	ND	0.002J	ND	ND	0.001J	ND
S8-0.5'	12/23/2016	ND	0.003J	0.002J	0.026J	ND	ND	ND	ND	ND	ND
S9-0.5'	12/23/2016	ND	0.092	0.012J	0.450	ND	0.011J	ND	0.001J	0.003J	ND
S10-0.5'	12/23/2016	ND	0.029J	0.004J	0.036J	ND	0.003J	ND	ND	ND	ND
S11-0.5'	12/23/2016	0.007J	0.064J	ND	ND	ND	ND	ND	ND	ND	ND
S12-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S13-0.5'	12/23/2016	ND	0.001J	ND	ND	ND	ND	ND	ND	ND	ND
S14-0.5'	12/23/2016	ND	0.003J	0.001J	ND	ND	0.002J	ND	ND	ND	ND
S15-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S16-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S17-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S17DUP-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S18-0.5'	12/23/2016	ND	0.001J	0.001J	ND	ND	ND	ND	ND	ND	ND
S19-0.5'	12/23/2016	ND	0.002J	0.001J	ND	ND	ND	ND	ND	ND	ND
S20-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S20DUP-0.5'	12/23/2016	ND	0.007	0.005	ND	ND	ND	ND	ND	ND	ND
S21-0.5'	12/23/2016	ND	0.007J	0.002J	ND	ND	ND	ND	ND	ND	ND
S22-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S23-0.5'	12/23/2016	0.001J	0.002J	0.003J	ND	ND	ND	ND	ND	ND	ND

Table 6
Soil Analytical Results - OCPs
Grant High School

SAMPLE LOCATION	Date	8081A Organochlorine Pesticides (OCPs)									
		4,4'-DDD (mg/kg)	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Chlordane (mg/kg)	d-BHC (mg/kg)	Dieldrin (mg/kg)	Endrin (mg/kg)	Heptachlor (mg/kg)	Heptachlor epoxide (mg/kg)	Toxaphene (mg/kg)
S24-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S25-0.5'	12/23/2016	ND	0.001J	0.001J	ND	ND	0.002J	ND	ND	ND	ND
S26-0.5'	12/23/2016	ND	ND	ND	ND	ND	0.007J	ND	ND	ND	ND
S27-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S28-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S29-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S30-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S31-0.5'	12/23/2016	ND	0.018J	ND	ND	ND	ND	ND	ND	ND	ND
S32-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S33-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S34-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S35-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S36-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18J
S37-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S38-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24J
S39-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S40-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S41-0.5'	12/21/2016	ND	0.00180J	ND	0.0350J	ND	ND	ND	ND	ND	ND
S42-0.5'	12/21/2016	ND	0.00094J	0.00230J	ND	ND	ND	ND	ND	ND	ND
S44-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S45-0.5'	12/21/2016	ND	0.002J	0.003J	ND	0.001J	0.01200J	ND	ND	0.001J	ND
S47-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 6
Soil Analytical Results - OCPs
Grant High School

SAMPLE LOCATION	Date	8081A Organochlorine Pesticides (OCPs)									
		4,4'-DDD (mg/kg)	4,4'-DDE (mg/kg)	4,4'-DDT (mg/kg)	Chlordane (mg/kg)	d-BHC (mg/kg)	Dieldrin (mg/kg)	Endrin (mg/kg)	Heptachlor (mg/kg)	Heptachlor epoxide (mg/kg)	Toxaphene (mg/kg)
S48-0.5'	12/21/2016	0.001J	ND	0.001J	ND	ND	ND	ND	ND	ND	ND
S49-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S50/SG4-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S51-0.5'	12/21/2016	ND	0.001J	ND	ND	ND	ND	ND	ND	ND	ND
S52-0.5'	12/23/2016	ND	0.004J	ND	ND	ND	ND	ND	ND	ND	ND
S53-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S53DUP-0.5'	12/21/2016	ND	0.001J	0.001J	ND	ND	ND	ND	ND	ND	ND
S54-0.5'	12/21/2016	0.078	0.04500J	0.008970J	0.0560J	ND	0.01300	ND	ND	0.00120J	0.028J
S55-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S56-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S57-0.5'	12/21/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S58-0.5'	12/21/2016	ND	0.011	0.006	ND	ND	0.001J	ND	ND	ND	ND
S65-0.5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
S66-0.5'	12/23/2016	ND	0.002J	0.003J	0.036J	ND	0.002J	ND	ND	ND	ND
S67-0.5'	1/16/2017	0.0085	0.015	0.079	0.150	ND	ND	ND	ND	ND	ND
S68-0.5'	1/16/2017	ND	0.039	0.028	0.270	ND	0.020	ND	ND	0.0065	ND
S69-0.5'	1/16/2017	ND	0.019	0.0064	ND	ND	0.0029J	ND	ND	ND	ND
S70-0.5'	1/16/2017	0.016	0.010	0.0041J	0.093	ND	ND	ND	ND	ND	ND
EPA Regional Screening Level - Residential Soil		2.0	1.4	1.7	1.6	NA	0.03	18	0.11	0.053	0.44

Notes:
mg/kg = milligrams per kilogram
NA = not analyzed

Table 7
Soil Analytical Results - PCBs
Grant HS

SAMPLE LOCATION	Date	8082 Polychlorinated Biphenyls (PCBs)								
		PCB-1016 (mg/kg)	PCB-1221 (mg/kg)	PCB-1232 (mg/kg)	PCB-1242 (mg/kg)	PCB-1248 (mg/kg)	PCB-1254 (mg/kg)	PCB-1260 (mg/kg)	PCB-1262 (mg/kg)	PCB-1268 (mg/kg)
S50/SG4-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S50/SG4-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S59-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S59-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S60-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S60-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S61-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S61-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S62-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S62-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S63-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S63-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S64-5'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S64-10'	12/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
S70-0.5'	12/29/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
EPA Regional Screening Level - Residential Soil		3.9	0.14	0.14	0.22	0.22	0.22	0.22	NA	NA

Notes:
mg/kg = milligrams per kilogram
NA = not analyzed
PCB = polychlorinated biphenyls
ND = not detected

Table 8
Soil Vapor Analytical Results - VOCs
Grant HS

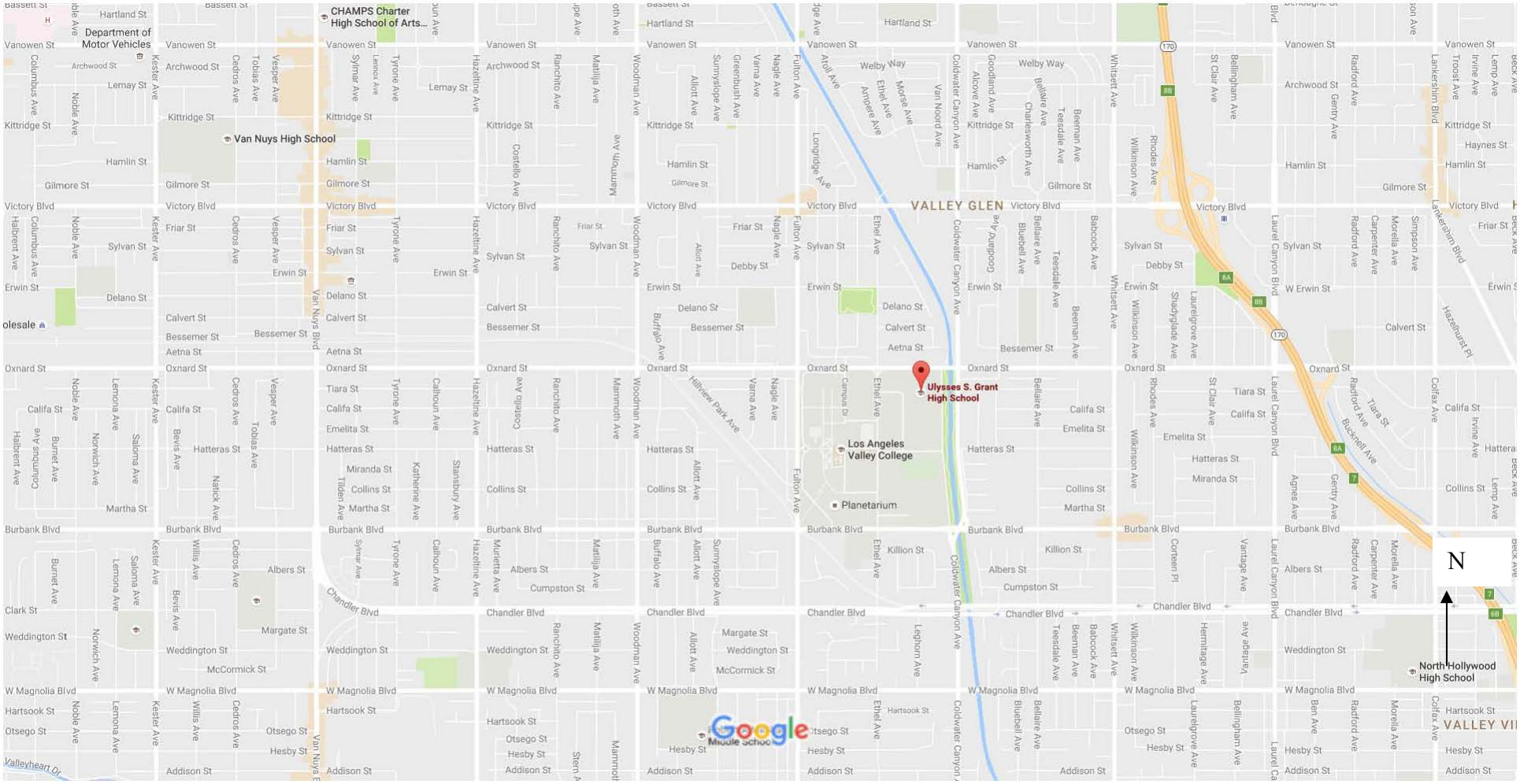
SAMPLE LOCATION	Date	8260B Volatile Organic Compounds (VOCs)									
		1,2,4-Trimethyl-benzene	4-Ethyl-toluene	Benzene	Dichloro-difluoro-methane	Ethyl-benzene	xylenes	Styrene	Tetra-chloro-ethene	toluene	Trichloro-fluro-methane
		(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)
S1/SG1-5'	12/23/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND	45.5
S1/SG1-10'	12/23/2016	ND	5.9	1.3J	3.5J	6.5	19.1	30.2	8.1	13.2	130
S2/SG2-5'	12/23/2016	2.9J	7.9	3.2	3.0J	10.4	55.1	10.6	4.1J	38.8	37.7
S2/SG2-10'	12/23/2016	ND	2.9J	ND	3.0J	3.9J	14.3	12.4	3.4J	9.4	46.6
S3/SG3-5'	12/23/2016	ND	ND	ND	ND	5.2J	26.9	6.8J	ND	9.8	ND
S3/SG3-10'	12/23/2016	ND	ND	1.6J	ND	3.5J	22.1	6.0	ND	7.5	ND
S50/SG4-5'	12/23/2016	ND	ND	ND	ND	5.2J	27.8	5.1J	19.0	15.1	296
S50/SG4-10'	12/23/2016	ND	ND	ND	ND	ND	16.3	5.3J	10.2J	11.3	264
CHHSLs Shallow Soil Gas Human Health Screening Levels (ug/m3)		NA	NA	36.2	NA	NA	3.15E+05	NA	180	1.35E+05	NA

Notes:
ug/m3 = micrograms per cubic meter
NA = not analyzed
ND = not detected
CHHSL = California Human Health Screening Level

Table 9
Soil Analytical Results - Lead
Grant High School Excavation Areas

SAMPLE LOCATION	Date	6010B Lead (mg/kg)	Lead STLC (mg/L)	Lead TCLP (mg/L)	SAMPLE LOCATION	Date	6010B Lead (mg/kg)
S68 Exc Bottom	7/13/2017	39.4	NA	NA	S73 Exc North Wall	7/21/2017	37.6
S68 Exc North Wall	7/13/2017	162	NA	NA	S69 Exc South Wall	7/21/2017	7.25
S68 Exc East Wall	7/13/2017	198	NA	NA	S69 Exc Bottom	7/21/2017	4.33
S68 Exc South Wall	7/13/2017	152	NA	NA	S67 Exc West Wall	7/21/2017	51.3
S68 Exc West Wall	7/13/2017	274	24.5	0.212	S67 Exc South Wall	7/21/2017	208
S69 Exc South Wall	7/13/2017	16.6	NA	NA	S68 Exc North Wall	7/21/2017	128
S69 Exc Bottom	7/13/2017	22.4	NA	NA	S68 Exc South Wall	7/21/2017	63.0
S9 Exc Bottom	7/13/2017	49.2	NA	NA	S68 Exc East Wall	7/21/2017	31.9
S9 Exc North Wall	7/13/2017	6.88	NA	NA	S68 Exc West Wall	7/21/2017	186
S8 Exc East Wall	7/13/2017	21.2	NA	NA			
S8 Exc Bottom	7/13/2017	149	NA	NA	S67 Exc West Wall	7/26/2017	23.1
S73 Exc Bottom	7/13/2017	29.6	NA	NA	S67 Exc South Wall	7/26/2017	93.6
S73 Exc West Wall	7/13/2017	30.3	NA	NA	S68 Exc North Wall	7/26/2017	96.8
S67 Exc Bottom	7/13/2017	117	NA	NA	S68 Exc South Wall	7/26/2017	56.1
S67 Exc South Wall	7/13/2017	144	NA	NA			
					S67-A-Exc Bottom	7/31/2017	133
S74 Exc North Wall	8/4/2017	47.6	NA	NA	S67-A-Exc South Wall	7/31/2017	130
S74 Exc Bottom	8/4/2017	5.1	NA	NA	S68-B-Exc North Wall	7/31/2017	260
S72 Exc North Wall	8/4/2017	70.4	NA	NA	S68-B-Exc Bottom	7/31/2017	77.4
Hazardous Waste Levels		1,000	5	5	--	--	1,000
Trigger Value (10xSTLC)		50	--	--	--	--	50
CHHSLs Residential Soil		150	--	--	--	--	150
CHHSLs Industrial Soil		3,500	--	--	--	--	3,500

Notes:
mg/kg = milligrams per kilogram
NA = not analyzed
STLC = soluble threshold limit concentration
TCLP = Toxicity characteristic leaching potential

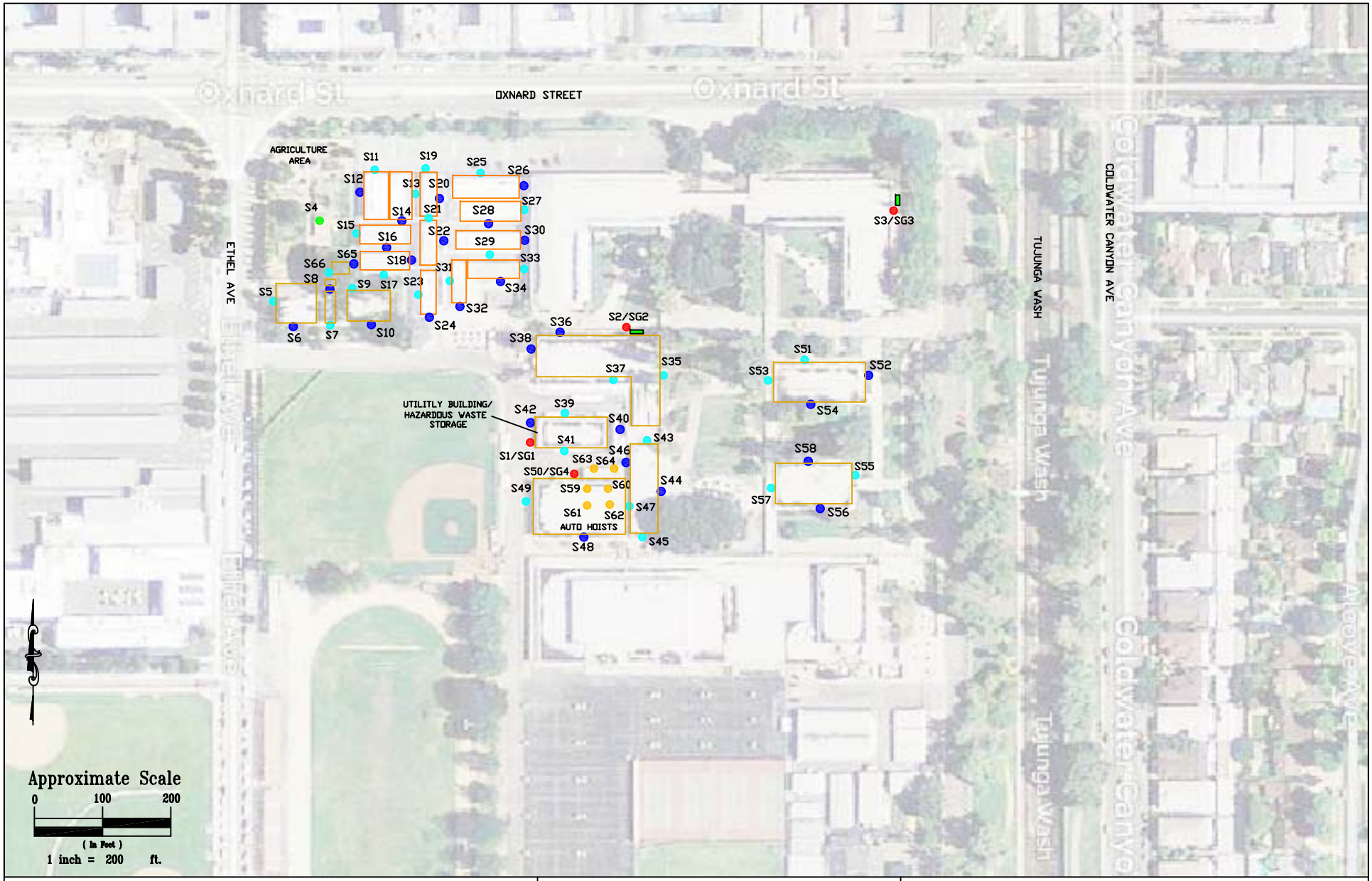


REV	DATE	DESCRIPTION

CES
Civil-Environmental-Survey Group

SITE LOCATION MAP
Ulysses S. Grant High School
13000 Oxnard Street
Los Angeles, CA

DRAWN BY:	CHECKED BY:	PROJECT NO:	
SMG		LAUSD	FIGURE 1
APPROVED BY:	DATE: 11/29/16	SCALE: AS SHOWN	

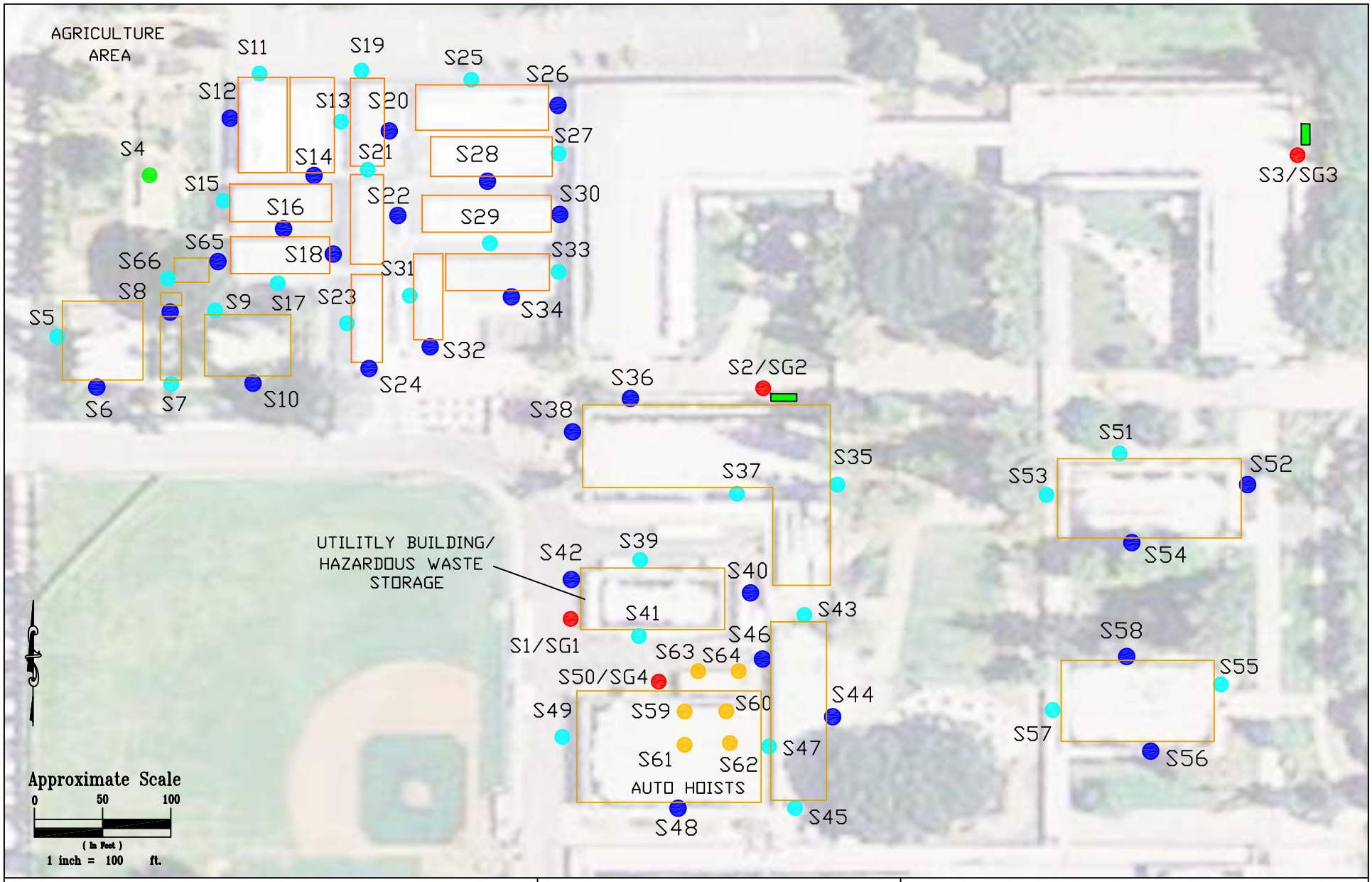


- CO-LOCATED SOIL/SOIL GAS SAMPLE LOCATION (0.5', 5', 10')
- LEAD AND OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- LEAD, OCP, AND ARSENIC SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- AUTO HOIST SAMPLE LOCATION (5', 10')
- BUILDING TO BE REMOVED
- PORTABLE TO BE REMOVED
- CLARIFIER

CES
Civil-Environmental-Survey Group
PHONE: (951) 808-8585/(951) 848-9812 (FAX)

Site Layout
Grant High School
13000 Oxnard Street
Los Angeles, Ca

DRAWN BY: S. GREEN	CHECKED BY:	PROJECT NO: LAUSD	FIGURE 2
APPROVED BY:	DATE: 5/9/17	SCALE: As shown	

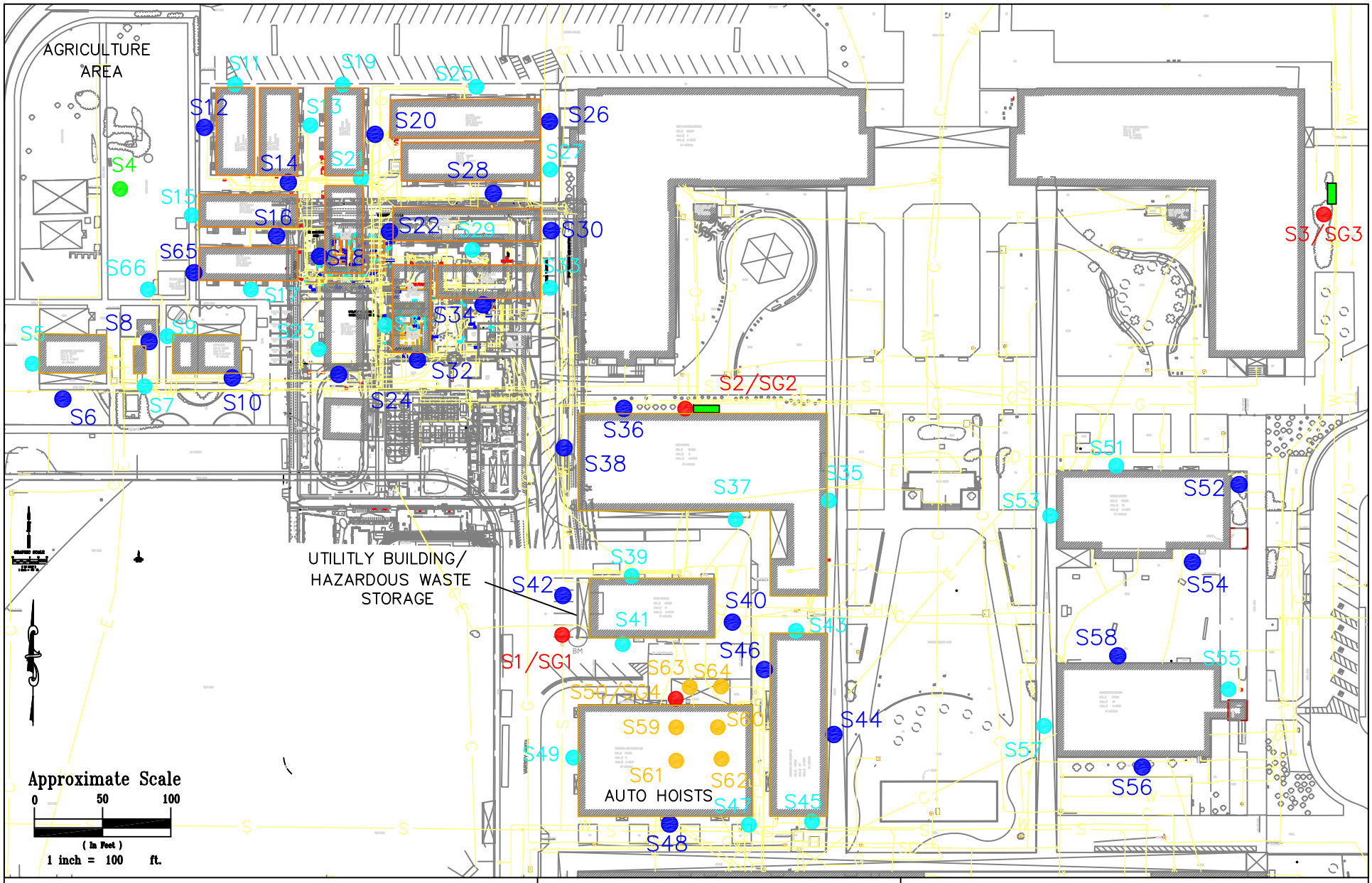


- CO-LOCATED SOIL/SOIL GAS SAMPLE LOCATION (0.5', 5', 10')
- LEAD AND OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- LEAD, OCP, AND ARSENIC SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- AUTO HOIST SAMPLE LOCATION (5', 10')
- BUILDING TO BE REMOVED
- PORTABLE TO BE REMOVED
- CLARIFIER

CES
Civil-Environmental-Survey Group
PHONE: (951) 808-8585/(951) 848-9812 (FAX)

Initial Sample Locations
Grant High School
13000 Oxnard Street
Los Angeles, CA

DRAWN BY: S. GREEN	CHECKED BY:	PROJECT NO:	FIGURE 3
APPROVED BY:	DATE: 5/9/17	SCALE: As Shown	

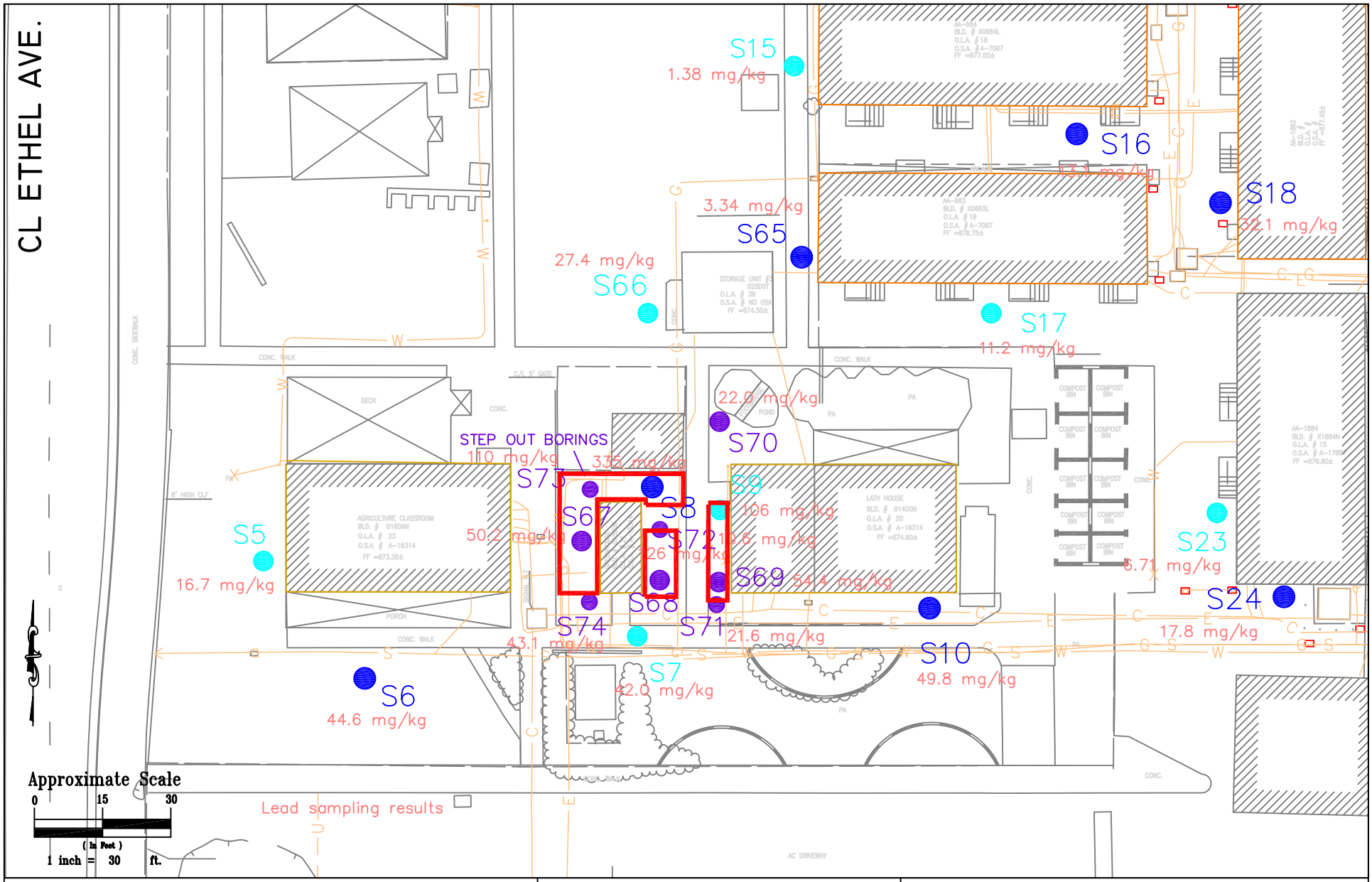


- CO-LOCATED SOIL/SOIL GAS SAMPLE LOCATION (0.5', 5', 10')
- LEAD AND OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- LEAD, OCP, AND ARSENIC SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- AUTO HOIST SAMPLE LOCATION (5', 10')
- BUILDING TO BE REMOVED
- PORTABLE TO BE REMOVED
- CLARIFIER

CES
Civil-Environmental-Survey Group
PHONE: (951) 808-8585/(951) 848-9812 (FAX)

Initial Sample Locations with Utilities
Grant High School
13000 Oxnard Street
Los Angeles, CA

DRAWN BY: S. GREEN	CHECKED BY:	PROJECT NO:	FIGURE 4
APPROVED BY:	DATE: 5/9/17	SCALE: As Shown	



- CO-LOCATED SOIL/SOIL GAS SAMPLE LOCATION (0.5', 5', 10')
- LEAD AND OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- LEAD, OCP, AND ARSENIC SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- OCP SOIL SAMPLE LOCATION (0.5', 1.5', 2.5')
- AUTO HOIST SAMPLE LOCATION (5', 10')
- BUILDING TO BE REMOVED
- PORTABLE TO BE REMOVED
- CLARIFIER
- AREA OF IMPACTED SOIL EXCAVATION

CES Civil-Environmental-Survey Group

PHONE: (951) 808-8585/(951) 848-9812 (FAX)

Step Out Locations and Results and Housekeeping Excavation Areas
Grant High School
Los Angeles, CA

DRAWN BY: S. GREEN	CHECKED BY:	PROJECT NO:	FIGURE 5
APPROVED BY:	DATE: 9/14/17	SCALE: As Shown	

Appendix A

Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: CES Group, Inc.
Address: 33353 Temecula Pkwy.
Suite 104 #333
Temecula, CA 92592
Attn: Skye Green

Lab Request: 385747
Report Date: 01/19/2017
Date Received: 12/22/2016
Client ID: 15581

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

Supplemental Report 2

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID	Sample #	Client Sample ID
385747-001	S34-0.5'	385747-025	S42-0.5'	385747-049	S53-0.5'
385747-002	S34-1.5'	385747-026	S42-1.5'	385747-050	S53-1.5'
385747-003	S34-2.5'	385747-027	S42-2.5'	385747-051	S53-2.5'
385747-004	S35-0.5'	385747-028	S44-0.5'	385747-052	S54-0.5'
385747-005	S35-1.5'	385747-029	S44-1.5'	385747-053	S54-1.5'
385747-006	S35-2.5'	385747-030	S44-2.5'	385747-054	S54-2.5'
385747-007	S36-0.5'	385747-031	S45-0.5'	385747-055	S56-0.5'
385747-008	S36-1.5'	385747-032	S45-1.5'	385747-056	S56-1.5'
385747-009	S36-2.5'	385747-033	S45-2.5'	385747-057	S56-2.5'
385747-010	S37-0.5'	385747-034	S47-0.5'	385747-058	S57-0.5'
385747-011	S37-1.5'	385747-035	S47-1.5'	385747-059	S57-1.5'
385747-012	S37-2.5'	385747-036	S47-2.5'	385747-060	S57-2.5'
385747-013	S38-0.5'	385747-037	S48-0.5'	385747-061	S58-0.5'
385747-014	S38-1.5'	385747-038	S48-1.5'	385747-062	S58-1.5'
385747-015	S38-2.5'	385747-039	S48-2.5'	385747-063	S58-2.5'
385747-016	S39-0.5'	385747-040	S49-0.5'	385747-064	S53D-0.5'
385747-017	S39-1.5'	385747-041	S49-1.5'	385747-065	S2/SG2-0.5'
385747-018	S39-2.5'	385747-042	S49-2.5'	385747-066	S2/SG2-1.5'
385747-019	S40-0.5'	385747-043	S50/SG4-0.5'	385747-067	S2/SG2-2.5'
385747-020	S40-1.5'	385747-044	S50/SG4-1.5'		
385747-021	S40-2.5'	385747-045	S50/SG4-2.5'		
385747-022	S41-0.5'	385747-046	S51-0.5'		
385747-023	S41-1.5'	385747-047	S51-1.5'		
385747-024	S41-2.5'	385747-048	S51-2.5'		

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:45	**Site:**			
Sample #:	**385747-001**	**Client Sample #:**	S34-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**0.93**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	2	0.00134	0.01	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	2	0.00114	0.01	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	2	0.0019	0.01	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	2	0.0004	0.01	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	2	0.024	0.1	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	2	0.0009	0.01	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	2	0.00126	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	2	0.00054	0.01	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	ND	2	0.024	0.2	mg/Kg	12/22/16	12/23/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*39*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*36*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:50	**Site:**			
Sample #:	**385747-002**	**Client Sample #:**	S34-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:55	**Site:**			
Sample #:	**385747-003**	**Client Sample #:**	S34-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 12:43	**Site:**			
Sample #:	**385747-004**	**Client Sample #:**	S35-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**5.78**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/23/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*61*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*87*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 12:50	**Site:**			
Sample #:	**385747-005**	**Client Sample #:**	S35-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 12:55	**Site:**			
Sample #:	**385747-006**	**Client Sample #:**	S35-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:15	**Site:**			
Sample #:	**385747-007**	**Client Sample #:**	S36-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**13.4**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	5	0.00335	0.025	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	5	0.00285	0.025	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	5	0.00475	0.025	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	5	0.001	0.025	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	5	0.0017	0.025	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	5	0.006	0.025	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	5	0.06	0.25	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	5	0.00225	0.025	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	5	0.00315	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	5	0.0014	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	5	0.004	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	5	0.0085	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	5	0.0031	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	5	0.0045	0.025	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	5	0.006	0.025	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	5	0.0022	0.025	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	5	0.00135	0.025	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	5	0.0015	0.025	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	5	0.026	0.25	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	**0.18 J**	5	0.06	0.5	mg/Kg	12/22/16	12/23/16	LW	J

Surrogate	*% Recovery*	*Limits*	*Notes*	
Decachlorobiphenyl DCB (SUR)	*11*	*50-150*	*S*	
Tetrachloro-m-xylene TCMX (SUR)	*17*	*50-150*	*S*	*Dark extract. Matrix interference.*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:20	**Site:**			
Sample #:	**385747-008**	**Client Sample #:**	S36-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:25	**Site:**			
Sample #:	**385747-009**	**Client Sample #:**	S36-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:30	**Site:**			
Sample #:	**385747-010**	**Client Sample #:**	S37-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173863		
Arsenic	**6.25**	10	0.2	3	mg/Kg	01/02/16	01/03/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/22/16	12/23/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*08*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*08*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:35	**Site:**			
Sample #:	**385747-011**	**Client Sample #:**	S37-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:40	**Site:**			
Sample #:	**385747-012**	**Client Sample #:**	S37-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:15	**Site:**			
Sample #:	**385747-013**	**Client Sample #:**	S38-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**21.1**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	5	0.00335	0.025	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	5	0.00285	0.025	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	5	0.00475	0.025	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	5	0.001	0.025	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	5	0.0017	0.025	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	5	0.006	0.025	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	5	0.06	0.25	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	5	0.00225	0.025	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	5	0.00315	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	5	0.0014	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	5	0.004	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	5	0.0085	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	5	0.0031	0.025	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	5	0.0045	0.025	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	5	0.006	0.025	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	5	0.0022	0.025	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	5	0.00135	0.025	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	5	0.0015	0.025	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	5	0.026	0.25	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	**0.24 J**	5	0.06	0.5	mg/Kg	12/22/16	12/23/16	LW	J

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*13*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*18*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:25	**Site:**			
Sample #:	**385747-014**	**Client Sample #:**	S38-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:30	**Site:**			
Sample #:	**385747-015**	**Client Sample #:**	S38-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:25	**Site:**			
Sample #:	**385747-016**	**Client Sample #:**	S39-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**3.18**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173863		
Arsenic	**1.439 J**	10	0.2	3	mg/Kg	01/02/16	01/03/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	2	0.00134	0.01	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	ND	2	0.00114	0.01	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	ND	2	0.0019	0.01	mg/Kg	12/22/16	12/26/16	LW	
a-BHC	ND	2	0.0004	0.01	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	2	0.024	0.1	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	2	0.0009	0.01	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	2	0.00126	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	2	0.00054	0.01	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	2	0.024	0.2	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*45*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*38*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:30	**Site:**			
Sample #:	**385747-017**	**Client Sample #:**	S39-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:35	**Site:**			
Sample #:	**385747-018**	**Client Sample #:**	S39-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:35	**Site:**			
Sample #:	**385747-019**	**Client Sample #:**	S40-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**16.6**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	50	0.0335	0.25	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	50	0.0285	0.25	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	ND	50	0.0475	0.25	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	50	0.01	0.25	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	50	0.017	0.25	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	50	0.06	0.25	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	50	0.6	2.5	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	50	0.0225	0.25	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	50	0.0315	0.25	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	50	0.014	0.25	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	50	0.04	0.25	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	50	0.085	0.25	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	50	0.031	0.25	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	50	0.045	0.25	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	50	0.06	0.25	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	50	0.022	0.25	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	50	0.0135	0.25	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	50	0.015	0.25	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	50	0.26	2.5	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	ND	50	0.6	5	mg/Kg	12/22/16	12/23/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*10*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*00*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:40	**Site:**			
Sample #:	**385747-020**	**Client Sample #:**	S40-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:45	**Site:**			
Sample #:	**385747-021**	**Client Sample #:**	S40-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:55	**Site:**			
Sample #:	**385747-022**	**Client Sample #:**	S41-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**13.8**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173863		
Arsenic	**7.05**	10	0.2	3	mg/Kg	01/02/16	01/03/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	2	0.00134	0.01	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	**0.00180 J**	2	0.00114	0.01	mg/Kg	12/22/16	12/26/16	LW	J
4,4'-DDT	ND	2	0.0019	0.01	mg/Kg	12/22/16	12/26/16	LW	
a-BHC	ND	2	0.0004	0.01	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	**0.0350 J**	2	0.024	0.1	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	2	0.0009	0.01	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	2	0.00126	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	2	0.00054	0.01	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	2	0.024	0.2	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*24*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*38*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:00	**Site:**			
Sample #:	**385747-023**	**Client Sample #:**	S41-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:05	**Site:**			
Sample #:	**385747-024**	**Client Sample #:**	S41-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:15	**Site:**			
Sample #:	**385747-025**	**Client Sample #:**	S42-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**45.4**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	**0.00094 J**	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	J
4,4'-DDT	**0.00230 J**	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*43*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*72*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:20	**Site:**			
Sample #:	**385747-026**	**Client Sample #:**	S42-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:25	**Site:**			
Sample #:	**385747-027**	**Client Sample #:**	S42-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:34	**Site:**			
Sample #:	**385747-028**	**Client Sample #:**	S44-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**5.62**	1	0.32	0.5	mg/Kg	12/28/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*66*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*69*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:37	**Site:**			
Sample #:	**385747-029**	**Client Sample #:**	S44-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:40	**Site:**			
Sample #:	**385747-030**	**Client Sample #:**	S44-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:20	**Site:**			
Sample #:	**385747-031**	**Client Sample #:**	S45-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**6.45**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	**0.002 J**	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	J
4,4'-DDT	**0.003 J**	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	**0.001 J**	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	J
Dieldrin	**0.01200 J**	5	0.00315	0.025	mg/Kg	12/22/16	12/26/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	**0.001 J**	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	J
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*62*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*83*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:25	**Site:**			
Sample #:	**385747-032**	**Client Sample #:**	S45-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:30	**Site:**			
Sample #:	**385747-033**	**Client Sample #:**	S45-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:13	**Site:**			
Sample #:	**385747-034**	**Client Sample #:**	S47-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1173757	
Lead	**56.6**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID:	QC1174165	
Lead	**2.86**	10	0.12	0.15	mg/L	01/09/17	01/10/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID:	QC1173653	
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*36*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*86*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:17	**Site:**			
Sample #:	**385747-035**	**Client Sample #:**	S47-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1174305	
Lead	**8.20**	1	0.32	0.5	mg/Kg	01/13/17	01/16/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:21	**Site:**			
Sample #:	**385747-036**	**Client Sample #:**	S47-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 10:45	**Site:**			
Sample #:	**385747-037**	**Client Sample #:**	S48-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**32.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	**0.001 J**	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	J
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*37*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*85*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 10:50	**Site:**			
Sample #:	**385747-038**	**Client Sample #:**	S48-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:00	**Site:**			
Sample #:	**385747-039**	**Client Sample #:**	S48-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:00	**Site:**			
Sample #:	**385747-040**	**Client Sample #:**	S49-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**11.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/26/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/26/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/26/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*43*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*79*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:05	**Site:**			
Sample #:	**385747-041**	**Client Sample #:**	S49-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 11:10	**Site:**			
Sample #:	**385747-042**	**Client Sample #:**	S49-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:55	**Site:**			
Sample #:	**385747-043**	**Client Sample #:**	S50/SG4-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**0.74**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/23/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/23/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/23/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/23/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*61*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*77*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:00	**Site:**			
Sample #:	**385747-044**	**Client Sample #:**	S50/SG4-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 14:05	**Site:**			
Sample #:	**385747-045**	**Client Sample #:**	S50/SG4-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:45	**Site:**			
Sample #:	**385747-046**	**Client Sample #:**	S51-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**8.91**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg	12/22/16	12/30/16	LW	J
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/30/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/30/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/30/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/30/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/30/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/30/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/30/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/30/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/30/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*35*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*58*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:50	**Site:**			
Sample #:	**385747-047**	**Client Sample #:**	S51-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:55	**Site:**			
Sample #:	**385747-048**	**Client Sample #:**	S51-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:40	**Site:**			
Sample #:	**385747-049**	**Client Sample #:**	S53-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**31.0**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/30/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/30/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/30/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/30/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/30/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/30/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/30/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/30/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/30/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*27*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*66*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:50	**Site:**			
Sample #:	**385747-050**	**Client Sample #:**	S53-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:55	**Site:**			
Sample #:	**385747-051**	**Client Sample #:**	S53-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:00	**Site:**			
Sample #:	**385747-052**	**Client Sample #:**	S54-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173757		
Lead	**30.4**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	**0.078**	2	0.00134	0.01	mg/Kg	12/22/16	12/23/16	LW	
4,4'-DDE	**0.04500 J**	10	0.0057	0.05	mg/Kg	12/22/16	12/23/16	LW	J
4,4'-DDT	**0.00870 J**	2	0.0019	0.01	mg/Kg	12/22/16	12/23/16	LW	J
a-BHC	ND	2	0.0004	0.01	mg/Kg	12/22/16	12/23/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg	12/22/16	12/23/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/23/16	LW	
Chlordane (technical)	**0.0560 J**	2	0.024	0.1	mg/Kg	12/22/16	12/23/16	LW	J
d-BHC	ND	2	0.0009	0.01	mg/Kg	12/22/16	12/23/16	LW	
Dieldrin	**0.01300**	2	0.00126	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg	12/22/16	12/23/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg	12/22/16	12/23/16	LW	L
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg	12/22/16	12/23/16	LW	
Heptachlor epoxide	**0.00120 J**	2	0.00054	0.01	mg/Kg	12/22/16	12/23/16	LW	J
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg	12/22/16	12/23/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg	12/22/16	12/23/16	LW	
Toxaphene	**0.028 J**	2	0.024	0.2	mg/Kg	12/22/16	12/23/16	LW	J

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*34*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*48*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:05	**Site:**			
Sample #:	**385747-053**	**Client Sample #:**	S54-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:10	**Site:**			
Sample #:	**385747-054**	**Client Sample #:**	S54-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:15	**Site:**			
Sample #:	**385747-055**	**Client Sample #:**	S56-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173756		
Lead	**25.1**	1	0.32	0.5	mg/Kg	12/27/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/30/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/30/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/30/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/30/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/30/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/30/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/30/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/30/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/30/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*59*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*103*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:20	**Site:**			
Sample #:	**385747-056**	**Client Sample #:**	S56-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:25	**Site:**			
Sample #:	**385747-057**	**Client Sample #:**	S56-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:20	**Site:**			
Sample #:	**385747-058**	**Client Sample #:**	S57-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173756		
Lead	**10.1**	1	0.32	0.5	mg/Kg	12/27/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173653		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/22/16	12/30/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/22/16	12/30/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/22/16	12/30/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/22/16	12/30/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/22/16	12/30/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/22/16	12/30/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/22/16	12/30/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/22/16	12/30/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/22/16	12/30/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/22/16	12/30/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/22/16	12/30/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/22/16	12/30/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/22/16	12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*44*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*93*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:25	**Site:**			
Sample #:	**385747-059**	**Client Sample #:**	S57-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:30	**Site:**			
Sample #:	**385747-060**	**Client Sample #:**	S57-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:00	**Site:**			
Sample #:	**385747-061**	**Client Sample #:**	S58-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173756		
Lead	**28.9**	1	0.32	0.5	mg/Kg	12/27/16	12/28/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.011**	1	0.00057	0.005	mg/Kg		12/25/16	LW	
4,4'-DDT	**0.006**	1	0.00095	0.005	mg/Kg		12/25/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	**0.001 J**	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*70*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*77*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:05	**Site:**			
Sample #:	**385747-062**	**Client Sample #:**	S58-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 16:10	**Site:**			
Sample #:	**385747-063**	**Client Sample #:**	S58-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 15:45	**Site:**			
Sample #:	**385747-064**	**Client Sample #:**	S53D-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**27.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*75*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*92*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:00	**Site:**			
Sample #:	**385747-065**	**Client Sample #:**	S2/SG2-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:05	**Site:**			
Sample #:	**385747-066**	**Client Sample #:**	S2/SG2-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/21/2016 13:10	**Site:**			
Sample #:	**385747-067**	**Client Sample #:**	S2/SG2-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

QCBatchID: QC1173653	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/22/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173653MB1					
4,4'-DDD	ND	mg/Kg	0.67	5	
4,4'-DDE	ND	mg/Kg	0.57	5	
4,4'-DDT	ND	mg/Kg	0.95	5	
a-BHC	ND	mg/Kg	0.2	5	
Aldrin	ND	mg/Kg	0.34	5	
b-BHC	ND	mg/Kg	1.2	5	
Chlordane (technical)	ND	mg/Kg	12	50	
d-BHC	ND	mg/Kg	0.45	5	
Dieldrin	ND	mg/Kg	0.63	5	
Endosulfan I	ND	mg/Kg	0.28	5	
Endosulfan II	ND	mg/Kg	0.8	5	
Endosulfan sulfate	ND	mg/Kg	1.7	5	
Endrin	ND	mg/Kg	0.62	5	
Endrin aldehyde	ND	mg/Kg	0.9	5	
Endrin Ketone	ND	mg/Kg	1.2	5	
Heptachlor	ND	mg/Kg	0.44	5	
Heptachlor epoxide	ND	mg/Kg	0.27	5	
Lindane (Gamma-BHC)	ND	mg/Kg	0.3	5	
Methoxychlor	ND	mg/Kg	5.2	10	
Toxaphene	ND	mg/Kg	12	100	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173653LCS1											
4,4'-DDE	0.005		0.00380		mg/Kg	76			70-130		
4,4'-DDT	0.005		0.00370		mg/Kg	74			70-130		
a-BHC	0.005		0.00400		mg/Kg	80			70-130		
Aldrin	0.005		0.00410		mg/Kg	82			70-130		
b-BHC	0.005		0.00400		mg/Kg	80			70-130		
d-BHC	0.005		0.00470		mg/Kg	94			70-130		
Dieldrin	0.005		0.00400		mg/Kg	80			70-130		
Endosulfan I	0.005		0.00370		mg/Kg	74			70-130		
Endosulfan II	0.005		0.00350		mg/Kg	70			70-130		
Endosulfan sulfate	0.005		0.00420		mg/Kg	84			70-130		
Endrin	0.005		0.00390		mg/Kg	78			70-130		
Endrin aldehyde	0.005		0.00320		mg/Kg	64			70-130		L
Heptachlor	0.005		0.00390		mg/Kg	78			70-130		
Heptachlor epoxide	0.005		0.00390		mg/Kg	78			70-130		
Lindane (Gamma-BHC)	0.005		0.00420		mg/Kg	84			70-130		
Methoxychlor	0.005		0.0038		mg/Kg	76			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173653MS1, QC1173653MSD1												**Source: 385747-001**
4,4'-DDE	ND	0.005	0.005	0.00200	0.00140	mg/Kg	40	28	35.3	70-130	20	M
4,4'-DDT	ND	0.005	0.005	0.00220	0.00150	mg/Kg	44	30	37.8	70-130	20	M
a-BHC	ND	0.005	0.005	0.00190	0.00180	mg/Kg	38	36	5.4	70-130	20	M
Aldrin	ND	0.005	0.005	0.00210	0.00170	mg/Kg	42	34	21.1	70-130	20	M
b-BHC	ND	0.005	0.005	0.00190	0.00130	mg/Kg	38	26	37.5	70-130	20	M

QCBatchID: QC1173653	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/22/2016	Instrument: SVOA-GC (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173653MS1, QC1173653MSD1											**Source:**	**385747-001**
d-BHC	ND	0.005	0.005	0.00210	0.00073	mg/Kg	42	15	96.8	70-130	20	M
Dieldrin	ND	0.005	0.005	0.00190	0.00110	mg/Kg	38	22	53.3	70-130	20	M
Endosulfan I	ND	0.005	0.005	0.00180	0.00120	mg/Kg	36	24	40.0	70-130	20	M
Endosulfan II	ND	0.005	0.005	0.00170	0.00029	mg/Kg	34	6	141.7	70-130	20	M
Endosulfan sulfate	ND	0.005	0.005	0.00170	0.00026	mg/Kg	34	5	146.9	70-130	20	M
Endrin	ND	0.005	0.005	0.00200	0.00120	mg/Kg	40	24	50.0	70-130	20	M
Endrin aldehyde	ND	0.005	0.005	0.00150	0.00029	mg/Kg	30	6	135.2	70-130	20	M
Heptachlor	ND	0.005	0.005	0.00200	0.00170	mg/Kg	40	34	16.2	70-130	20	M
Heptachlor epoxide	ND	0.005	0.005	0.00190	0.00130	mg/Kg	38	26	37.5	70-130	20	M
Lindane (Gamma-BHC)	ND	0.005	0.005	0.00210	0.00160	mg/Kg	42	32	27.0	70-130	20	M
Methoxychlor	ND	0.005	0.005	0.0021	0.0012	mg/Kg	42	24	54.5	70-130	20	M

QCBatchID: QC1173682	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/25/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173682MB1					
4,4'-DDD	ND	mg/Kg	0.67	5	
4,4'-DDE	ND	mg/Kg	0.57	5	
4,4'-DDT	ND	mg/Kg	0.95	5	
a-BHC	ND	mg/Kg	0.2	5	
Aldrin	ND	mg/Kg	0.34	5	
b-BHC	ND	mg/Kg	1.2	5	
Chlordane (technical)	ND	mg/Kg	12	50	
cis-chlordane	ND	mg/Kg			
d-BHC	ND	mg/Kg	0.45	5	
Dieldrin	ND	mg/Kg	0.63	5	
Endosulfan I	ND	mg/Kg	0.28	5	
Endosulfan II	ND	mg/Kg	0.8	5	
Endosulfan sulfate	ND	mg/Kg	1.7	5	
Endrin	ND	mg/Kg	0.62	5	
Endrin aldehyde	ND	mg/Kg	0.9	5	
Endrin Ketone	ND	mg/Kg	1.2	5	
Heptachlor	ND	mg/Kg	0.44	5	
Heptachlor epoxide	ND	mg/Kg	0.27	5	
Hexachlorobenzene	ND	mg/Kg			
Lindane (Gamma-BHC)	ND	mg/Kg	0.3	5	
Methoxychlor	ND	mg/Kg	5.2	10	
Toxaphene	ND	mg/Kg	12	100	
trans-chlordane	ND	mg/Kg			

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682LCS1											
4,4'-DDE	0.005		0.004		mg/Kg	80			70-130		
4,4'-DDT	0.005		0.004		mg/Kg	80			70-130		
a-BHC	0.005		0.004		mg/Kg	80			70-130		
Aldrin	0.005		0.004		mg/Kg	80			70-130		
b-BHC	0.005		0.004		mg/Kg	80			70-130		
d-BHC	0.005		0.004		mg/Kg	80			70-130		
Dieldrin	0.005		0.004		mg/Kg	80			70-130		
Endosulfan I	0.005		0.004		mg/Kg	80			70-130		
Endosulfan II	0.005		0.004		mg/Kg	80			70-130		
Endosulfan sulfate	0.005		0.004		mg/Kg	80			70-130		
Endrin	0.005		0.004		mg/Kg	80			70-130		
Endrin aldehyde	0.005		0.004		mg/Kg	80			70-130		
Heptachlor	0.005		0.004		mg/Kg	80			70-130		
Heptachlor epoxide	0.005		0.004		mg/Kg	80			70-130		
Lindane (Gamma-BHC)	0.005		0.004		mg/Kg	80			70-130		
Methoxychlor	0.005		0.004		mg/Kg	80			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682MS1, QC1173682MSD1												**Source: 385747-061**
4,4'-DDE	0.011	0.005	0.005	0.013	0.018	mg/Kg	40	140	32.3	70-130	20	M
4,4'-DDT	0.006	0.005	0.005	0.009	0.010	mg/Kg	60	80	158.3	70-130	20	M

QCBatchID: QC1173682	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/25/2016	Instrument: SVOA-GC (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682MS1, QC1173682MSD1											**Source:**	**385747-061**
a-BHC	ND	0.005	0.005	0.004	0.006	mg/Kg	80	120	40.0	70-130	20	M
Aldrin	ND	0.005	0.005	0.004	0.005	mg/Kg	80	100	22.2	70-130	20	M
b-BHC	ND	0.005	0.005	0.003	0.005	mg/Kg	60	100	50.0	70-130	20	M
d-BHC	ND	0.005	0.005	0.001	0.005	mg/Kg	20	100	133.3	70-130	20	M
Dieldrin	0.001	0.005	0.005	0.003	0.009	mg/Kg	40	160	97.1	70-130	20	M
Endosulfan I	ND	0.005	0.005	0.002	0.004	mg/Kg	40	80	66.7	70-130	20	M
Endosulfan II	ND	0.005	0.005	0.001	0.004	mg/Kg	20	80	85.7	70-130	20	M
Endosulfan sulfate	ND	0.005	0.005	0.000	0.002	mg/Kg	0	40	66.7	70-130	20	M
Endrin	ND	0.005	0.005	0.001	0.005	mg/Kg	20	100	88.9	70-130	20	M
Endrin aldehyde	ND	0.005	0.005	0.001	0.003	mg/Kg	20	60	107.7	70-130	20	M
Heptachlor	ND	0.005	0.005	0.004	0.005	mg/Kg	80	100	22.2	70-130	20	M
Heptachlor epoxide	ND	0.005	0.005	0.002	0.005	mg/Kg	40	100	85.7	70-130	20	M
Lindane (Gamma-BHC)	ND	0.005	0.005	0.004	0.006	mg/Kg	80	120	40.0	70-130	20	M
Methoxychlor	ND	0.005	0.005	0.001	0.006	mg/Kg	20	120	28.6	70-130	20	M

QCBatchID: QC1173756	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173756MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Calcium	ND	mg/Kg	0.94	50	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Iron	ND	mg/Kg	0.4	5	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Potassium	ND	mg/Kg	3.07	50	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173756LCS1											
Antimony	100		106		mg/Kg	106			80-120		
Arsenic	100		94.1		mg/Kg	94			80-120		
Barium	100		103		mg/Kg	103			80-120		
Beryllium	100		98.7		mg/Kg	99			80-120		
Cadmium	100		102		mg/Kg	102			80-120		
Chromium	100		101		mg/Kg	101			80-120		
Cobalt	100		102		mg/Kg	102			80-120		
Copper	100		97.3		mg/Kg	97			80-120		
Lead	100		99.4		mg/Kg	99			80-120		
Molybdenum	100		93.2		mg/Kg	93			80-120		
Nickel	100		96.1		mg/Kg	96			80-120		
Selenium	100		89.5		mg/Kg	90			80-120		
Silver	100		94.5		mg/Kg	95			80-120		
Thallium	100		113		mg/Kg	113			80-120		
Vanadium	100		99.1		mg/Kg	99			80-120		
Zinc	100		102		mg/Kg	102			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173756MS1, QC1173756MSD1												**Source: 385775-001**
Antimony	ND	100	100	14.6	12.2	mg/Kg	15	12	17.9	75-125	20	M
Arsenic	4.03	100	100	85.5	78.0	mg/Kg	81	74	9.2	75-125	20	M
Barium	90.3	100	100	202	193	mg/Kg	112	103	4.6	75-125	20	
Beryllium	ND	100	100	84.7	77.7	mg/Kg	85	78	8.6	75-125	20	
Cadmium	0.52	100	100	85.6	78.7	mg/Kg	85	78	8.4	75-125	20	
Chromium	13.9	100	100	104	96.8	mg/Kg	90	83	7.2	75-125	20	

QCBatchID: QC1173756	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173756MS1, QC1173756MSD1												**Source: 385775-001**
Cobalt	9.16	100	100	95.1	87.5	mg/Kg	86	78	8.3	75-125	20	
Copper	18.3	100	100	108	103	mg/Kg	90	85	4.7	75-125	20	
Lead	3.16	100	100	82.8	75.0	mg/Kg	80	72	9.9	75-125	20	M
Molybdenum	ND	100	100	76.8	68.8	mg/Kg	77	69	11.0	75-125	20	M
Nickel	11.4	100	100	95.8	87.0	mg/Kg	84	76	9.6	75-125	20	
Selenium	1.35	100	100	80.6	72.4	mg/Kg	79	71	10.7	75-125	20	M
Silver	ND	100	100	76.2	73.8	mg/Kg	76	74	3.2	75-125	20	M
Thallium	ND	100	100	82.0	71.9	mg/Kg	82	72	13.1	75-125	20	M
Vanadium	32.7	100	100	123	114	mg/Kg	90	81	7.6	75-125	20	
Zinc	45.3	100	100	134	124	mg/Kg	89	79	7.8	75-125	20	

QCBatchID: QC1173757	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173757MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Tin	ND	mg/Kg	0.7	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173757LCS1											
Antimony	100		94.2		mg/Kg	94			80-120		
Arsenic	100		98.3		mg/Kg	98			80-120		
Barium	100		106		mg/Kg	106			80-120		
Beryllium	100		103		mg/Kg	103			80-120		
Cadmium	100		108		mg/Kg	108			80-120		
Chromium	100		106		mg/Kg	106			80-120		
Cobalt	100		108		mg/Kg	108			80-120		
Copper	100		99.6		mg/Kg	100			80-120		
Lead	100		107		mg/Kg	107			80-120		
Molybdenum	100		99.1		mg/Kg	99			80-120		
Nickel	100		103		mg/Kg	103			80-120		
Selenium	100		93.3		mg/Kg	93			80-120		
Silver	100		89.7		mg/Kg	90			80-120		
Thallium	100		116		mg/Kg	116			80-120		
Vanadium	100		103		mg/Kg	103			80-120		
Zinc	100		98.2		mg/Kg	98			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173757MS1, QC1173757MSD1												**Source: 385693-001**
Antimony	ND	100	100	27.4	26.6	mg/Kg	27	27	3.0	75-125	20	M
Arsenic	3.23	100	100	80.2	83.6	mg/Kg	77	80	4.2	75-125	20	
Barium	77.6	100	100	163	155	mg/Kg	85	77	5.0	75-125	20	
Beryllium	ND	100	100	80.8	82.2	mg/Kg	81	82	1.7	75-125	20	
Cadmium	0.69	100	100	80.7	78.2	mg/Kg	80	78	3.1	75-125	20	
Chromium	22.6	100	100	103	98.9	mg/Kg	80	76	4.1	75-125	20	
Cobalt	5.27	100	100	83.8	81.2	mg/Kg	79	76	3.2	75-125	20	
Copper	56.6	100	100	123	130	mg/Kg	66	73	5.5	75-125	20	M

QCBatchID: QC1173757	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173757MS1, QC1173757MSD1												**Source: 385693-001**
Lead	41.9	100	100	107	122	mg/Kg	65	80	13.1	75-125	20	M
Molybdenum	0.34	100	100	73.7	76.2	mg/Kg	73	76	3.3	75-125	20	M
Nickel	16.4	100	100	91.0	95.2	mg/Kg	75	79	4.5	75-125	20	M
Selenium	ND	100	100	73.3	76.3	mg/Kg	73	76	4.0	75-125	20	M
Silver	ND	100	100	71.4	69.0	mg/Kg	71	69	3.4	75-125	20	M
Thallium	0.57	100	100	77.4	79.8	mg/Kg	77	79	3.1	75-125	20	
Vanadium	16.9	100	100	98.9	95.9	mg/Kg	82	79	3.1	75-125	20	
Zinc	158	100	100	206	214	mg/Kg	48	56	3.8	75-125	20	M

QCBatchID:	QC1173758	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	12/28/2016	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173758MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173758LCS1											
Lead	100		105		mg/Kg	105			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173758MS1, QC1173758MSD1												**Source: 385747-064**
Lead	27.9	100	100	102	115	mg/Kg				75-125	20	

QCBatchID:	QC1173863	Analyst:	dswafford	Method:	EPA 6020
Matrix:	Solid	Analyzed:	12/30/2016	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173863MB1					
Arsenic	ND	mg/Kg	0.02	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173863LCS1											
Arsenic	50		53.6		mg/Kg	107			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173863MS1, QC1173863MSD1												**Source: 385747-010**
Arsenic	6.25	50	50	50.7	53.4	mg/Kg	89	94	5.2	75-125	20	

QCBatchID: QC1174165	Analyst: kedy	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/09/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174165MB1					
Chromium	ND	mg/L	0.006	0.03	
Lead	ND	mg/L	0.012	0.015	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174165MS1, QC1174165MSD1												**Source: 385727-001**
Chromium	ND	10	10	9.75	10.0	mg/L	97	100	2.5	75-125	20	
Lead	ND	10	10	9.36	9.47	mg/L	93	94	1.2	75-125	20	

QCBatchID: QC1174305	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/13/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174305MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	**0.35 J**	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174305LCS1											
Antimony	100		103		mg/Kg	103			80-120		
Arsenic	100		95.6		mg/Kg	96			80-120		
Barium	100		103		mg/Kg	103			80-120		
Beryllium	100		96.8		mg/Kg	97			80-120		
Cadmium	100		103		mg/Kg	103			80-120		
Chromium	100		98.7		mg/Kg	99			80-120		
Cobalt	100		99.3		mg/Kg	99			80-120		
Copper	100		96.5		mg/Kg	97			80-120		
Lead	100		98.4		mg/Kg	98			80-120		
Molybdenum	100		96.1		mg/Kg	96			80-120		
Nickel	100		100		mg/Kg	100			80-120		
Selenium	100		91.7		mg/Kg	92			80-120		
Silver	100		93.0		mg/Kg	93			80-120		
Thallium	100		101		mg/Kg	101			80-120		
Vanadium	100		99.8		mg/Kg	100			80-120		
Zinc	100		98.1		mg/Kg	98			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174305MS1, QC1174305MSD1												**Source: 385747-035**
Antimony	ND	100	100	28.3	29.9	mg/Kg	28	30	5.5	75-125	20	M
Arsenic	11.6	100	100	103	106	mg/Kg	91	94	2.9	75-125	20	
Barium	130	100	100	226	227	mg/Kg	96	97	0.4	75-125	20	
Beryllium	ND	100	100	90.0	93.0	mg/Kg	90	93	3.3	75-125	20	
Cadmium	0.55	100	100	97.7	101	mg/Kg	97	100	3.3	75-125	20	
Chromium	17.0	100	100	110	113	mg/Kg	93	96	2.7	75-125	20	
Cobalt	11.2	100	100	102	102	mg/Kg	91	91	0.0	75-125	20	
Copper	20.0	100	100	113	116	mg/Kg	93	96	2.6	75-125	20	
Lead	8.20	100	100	97.8	99.8	mg/Kg	90	92	2.0	75-125	20	

QCBatchID: QC1174305	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/13/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174305MS1, QC1174305MSD1											**Source:**	**385747-035**
Molybdenum	ND	100	100	89.4	90.2	mg/Kg	89	90	0.9	75-125	20	
Nickel	11.6	100	100	103	103	mg/Kg	91	91	0.0	75-125	20	
Selenium	ND	100	100	69.8	67.2	mg/Kg	70	67	3.8	75-125	20	M
Silver	0.18	100	100	86.6	90.1	mg/Kg	86	90	4.0	75-125	20	
Thallium	ND	100	100	88.6	88.1	mg/Kg	89	88	0.6	75-125	20	
Vanadium	35.1	100	100	130	135	mg/Kg	95	100	3.8	75-125	20	
Zinc	52.8	100	100	146	149	mg/Kg	93	96	2.0	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 1 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request / **Test Instructions / Comments**: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold
1	S34-0.5'	12/21/16	2:45 PM	S	8oz		x		x							
2	S34-1.5'	12/21/16	2:50 PM	S	8oz											x
3	S34-2.5'	12/21/16	2:55 PM	S	8oz											x
4	S35-0.5'	12/21/16	12:43 PM	S	8oz		x		x							
5	S35-1.5'	12/21/16	12:50 PM	S	8oz											x
6	S35-2.5'	12/21/16	12:55 PM	S	8oz											x
7	S36-0.5'	12/21/16	1:15 PM	S	8oz		x		x							
8	S36-1.5'	12/21/16	1:20 PM	S	8oz											x
9	S36-2.5'	12/21/16	1:25 PM	S	8oz											x
10				S												

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		Al Lohrani	CES GROUP	12-22-16 / 0610
2 Relinquished By:		Al Lohrani	CES GROUP	12-22-16 / 1209
2 Received By:		L. Marrolletti		12/22/16 1209
3 Relinquished By:		L. Marrolletti		12/22/16 1253
3 Received By:		T. Nash	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 2 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S37-0.5'	12/21/16	2:30 PM	S	8oz		x	x	x								Analyze 0.5' samples. Hold deeper samples.
2	S37-1.5'	12/21/16	2:35 PM	S	8oz											x	
3	S37-2.5'	12/21/16	2:40 PM	S	8oz											x	
4	S38-0.5'	12/21/16	1:15 PM	S	8oz		x		x								
5	S38-1.5'	12/21/16	1:25 PM	S	8oz											x	
6	S38-2.5'	12/21/16	1:30 PM	S	8oz											x	
7	S39-0.5'	12/21/16	2:25 PM	S	8oz		x	x	x								
8	S39-1.5'	12/21/16	2:30 PM	S	8oz											x	
9	S39-2.5'	12/21/16	2:35 PM	S	8oz											x	
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		Al Lubrani	CES Group	12-22-16/ 0610
2 Relinquished By:		Al Lubrani	CES Group	12-22-16 @ 1209
2 Received By:		L. Marrokti		12/22/16 1209
3 Relinquished By:		L. Marrokti		12/22/16 1253
3 Received By:		T. Nhan	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 3 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S40-0.5'	12/21/16	2:35 PM	S	8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S40-1.5'	12/21/16	2:40 PM	S	8oz											x	
3	S40-2.5'	12/21/16	2:45 PM	S	8oz											x	
4	S41-0.5'	12/21/16	1:55 PM	S	8oz		x	x	x								
5	S41-1.5'	12/21/16	2:00 PM	S	8oz											x	
6	S41-2.5'	12/21/16	2:05 PM	S	8oz											x	
7	S42-0.5'	12/21/16	2:15 PM	S	8oz		x		x								
8	S42-1.5'	12/21/16	2:20 PM	S	8oz											x	
9	S42-2.5'	12/21/16	2:25 PM	S	8oz											x	
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		M Lohrani	CES Group	12-22-16 / 0610
2 Relinquished By:		M Lohrani	CES Group	12-22-16 / 1209
2 Received By:		E. Marrokki		12/22/16 1209
3 Relinquished By:		E. Marrokki		12/22/16 1253
3 Received By:		T. Nelson	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 4 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request / **Test Instructions / Comments**: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold
1	S44-0.5'	12/21/16	11:34 AM	S	8oz		x		x							
2	S44-1.5'	12/21/16	11:37 AM	S	8oz											x
3	S44-2.5'	12/21/16	11:40 AM	S	8oz											x
4	S45-0.5'	12/21/16	11:20 AM	S	8oz		x		x							
5	S45-1.5'	12/21/16	11:25 AM	S	8oz											x
6	S45-2.5'	12/21/16	11:30 AM	S	8oz											x
7	S47-0.5'	12/21/16	11:13 AM	S	8oz		x		x							
8	S47-1.5'	12/21/16	11:17 AM	S	8oz											x
9	S47-2.5'	12/21/16	11:21 AM	S	8oz											x
10				S												

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		Al Lubrani	CES GROUP	12-22-16 / 0610
2 Relinquished By:		Al Lubrani	CES GROUP	12-22-16 / 1209
2 Received By:		C. Marrolli		12/22/16 1259
3 Relinquished By:		C. Marrolli		12/22/16 1253
3 Received By:		T. Nash	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 5 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S48-0.5'	12/21/16	10:45 AM	S	8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S48-1.5'	12/21/16	10:50 AM	S	8oz											x	
3	S48-2.5'	12/21/16	11:00 AM	S	8oz											x	
4	S49-0.5'	12/21/16	11:00 AM	S	8oz		x		x								
5	S49-1.5'	12/21/16	11:05 AM	S	8oz											x	
6	S49-2.5'	12/21/16	11:10 AM	S	8oz											x	
7	S50/SG4-0.5'	12/21/16	1:55 PM	S	8oz		x		x								
8	S50/SG4-1.5'	12/21/16	2:00 PM	S	8oz											x	
9	S50/SG4-2.5'	12/21/16	2:05 PM	S	8oz											x	
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	
1 Received By:	[signature]	A Lubrani	CES Group	12-22-16 / 0610
2 Relinquished By:	[signature]	A Lubrani	CES Group	12-22-16 / 1209
2 Received By:	[signature]	L. Marrolett		12/22/16 1209
3 Relinquished By:	[signature]	L. Marrolett		12/22/16 1253
3 Received By:	[signature]	T. Nasr	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 6 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S51-0.5'	12/21/16	3:45 PM	S	8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S51-1.5'	12/21/16	3:50 PM	S	8oz											x	
3	S51-2.5'	12/21/16	3:55 PM	S	8oz											x	
4	S53-0.5'	12/21/16	3:40 PM	S	8oz		x		x								
5	S53-1.5'	12/21/16	3:50 PM	S	8oz											x	
6	S53-2.5'	12/21/16	3:55 PM	S	8oz											x	
7	S54-0.5'	12/21/16	4:00 PM	S	8oz		x		x								
8	S54-1.5'	12/21/16	4:05 PM	S	8oz											x	
9	S54-2.5'	12/21/16	4:10 PM	S	8oz											x	
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		Al Lubrani	CES Group	12-22-16 / 0610
2 Relinquished By:		Al Lubrani	CES Group	12-22-16 / 1209
2 Received By:		C. Marcoletti		12/22/16 1209
3 Relinquished By:		C. Marcoletti		12/22/16 1253
3 Received By:		T. Nash	EA	12/22/14 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385747 Page: 7 of 8	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

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Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S56-0.5'	12/21/16	4:15 PM	S	8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S56-1.5'	12/21/16	4:20 PM	S	8oz											x	
3	S56-2.5'	12/21/16	4:25 PM	S	8oz											x	
4	S57-0.5'	12/21/16	4:20 PM	S	8oz		x		x								
5	S57-1.5'	12/21/16	4:25 PM	S	8oz											x	
6	S57-2.5'	12/21/16	4:30 PM	S	8oz											x	
7	S58-0.5'	12/21/16	4:00 PM	S	8oz		x		x								
8	S58-1.5'	12/21/16	4:05 PM	S	8oz											x	
9	S58-2.5'	12/21/16	4:10 PM	S	8oz											x	
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	
1 Received By:		Al Lubrani	CES GROUP	12-22-16 / 0610
2 Relinquished By:		Al Lubrani	CES GROUP	12-22-16 / 1209
2 Received By:		L. Marrolette		12/22/16 1209
3 Relinquished By:		L. Marrolette		12/22/16 1253
3 Received By:		T. Nash	EA	12/22/16 1253

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)					
806 N. Batavia St., Orange, CA 92868	Lab No: 385747	Standard:	x	4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714)771-9933	Page: 8 of 8	2 Day:		1 Day:		Same Day:	
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			Hold	Test Instructions / Comments
1	S53D-0.5'	12/21/16	3:45 PM	S	8oz		x		x								
2				S													
3	S2/SG2 - 0.5' ~~0.5' [illegible]~~ not in container 12/22/16	12/21/16	1:00 PM	S	8oz											x	Hold Only ID taken from container 12/22/16
4	S2/SG2 - 1.5'	12/21/16	1:05 PM	S	8oz											x	ID taken from container 12/22/16
5	S2/SG2 - 2.5'	12/21/16	1:10 PM	S	8oz											x	ID taken from container
6				S													
7				S													
8				S													
9				S													
10				S													

Analyze 0.5' samples. Hold deeper samples.

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	
1 Received By:	[signature]	Al Lubrani	CES GROUP	12-22-16 / 0610
2 Relinquished By:	[signature]	Al Lubrani	CES GROUP	12-22-16 / 1209
2 Received By:	[signature]	L. Marrolett		12/22/16 1209
3 Relinquished By:	[signature]	L. Marrolett		12/22/16 1253
3 Received By:	[signature]	T. Nash	EA	12/22/16 1253

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES GROUP Project: GRANT HS.

Date Received: 12/22/16 Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? (Yes) How many? 1 No (skip section 2) Sample Temp (°C):_____

Sample Temp (°C) from each cooler: #1: 13.9°C #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information:_____

Section 2

Was the cooler packed with: ✓ Ice ____ Ice Packs ____ Bubble Wrap ____ Styrofoam ____ Paper ____ None ____ Other_____

Cooler Temp (°C): #1: 1.8°C #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Section 4

Explanations/Comments: LAST 2 SAMPLES DO NOT HAVE IDs

Section 5

For discrepancies, how was the Project Manager notified? (Verbal) PM Initials: WY Date/Time 12/22/16

Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: [signature] Date: 12/22/16

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Thursday, January 05, 2017 9:49 AM
To: Ranjit Clarke
Cc: 'Danny Baysa'
Subject: RE: Enthalpy Analytical Final Report #385747

Ranjit,
Please run STLC analysis on S47-0.5' Lead result of 56.6 mg/kg. We will stick with normal turnaround time.
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Wednesday, January 4, 2017 4:13 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Enthalpy Analytical Final Report #385747

Hi Skye Green,

Attached is your final report #385747.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Thursday, January 12, 2017 12:47 PM
To: Ranjit Clarke
Subject: RE: Grant HS (12/21/16) - Enthalpy Analytical Final Report #385747 - Supplemental report 1

Hi Ranjit,
I also need the lead result for the deeper sample S47-1.5'. Is that on your radar already?

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, January 12, 2017 10:52 AM
To: sgreen@cesgroup.co; 'Danny Baysa' <dbaysa@cesgroup.co>
Subject: Grant HS (12/21/16) - Enthalpy Analytical Final Report #385747 - Supplemental report 1

Hi Skye Green,

Attached is your final report #385747. Supplemental report 1. STLC Pb for S47-0.5' is now included.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	385824
Address:	33353 Temecula Pkwy.	Report Date:	01/12/2017
	Suite 104 #333	Date Received:	12/24/2016
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

Supplemental Report 1 - Reporting units changed to ug/m3.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
385824-001	S1/SG1-5'
385824-002	S1-SG1-10'
385824-003	S2/SG2-5'
385824-004	S2/SG2-10'
385824-005	S3/SG3-5'
385824-006	S3/SG3-10'
385824-007	S50/SG4-5'
385824-008	S50/SG4-10'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:45	**Site:**			
Sample #:	**385824-001**	**Client Sample #:**	S1/SG1-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1173907	
1,1,1-Trichloroethane	ND	1	1.1	5.5	ug/m3		12/28/16 15:14	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	4.1	6.9	ug/m3		12/28/16 15:14	ZZ	
1,1,2-Trichloroethane	ND	1	1.7	5.5	ug/m3		12/28/16 15:14	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	3.1	7.7	ug/m3		12/28/16 15:14	ZZ	
1,1-Dichloroethane	ND	1	1.2	4.1	ug/m3		12/28/16 15:14	ZZ	
1,1-Dichloroethene	ND	1	2.4	4	ug/m3		12/28/16 15:14	ZZ	
1,2,4-Trichlorobenzene	ND	1	3.7	7.4	ug/m3		12/28/16 15:14	ZZ	
1,2,4-Trimethylbenzene	ND	1	2	4.9	ug/m3		12/28/16 15:14	ZZ	
1,2-Dibromoethane	ND	1	3.9	7.7	ug/m3		12/28/16 15:14	ZZ	
1,2-Dichlorobenzene	ND	1	36	60	ug/m3		12/28/16 15:14	ZZ	
1,2-Dichloroethane	ND	1	1.6	4.1	ug/m3		12/28/16 15:14	ZZ	
1,2-Dichloropropane	ND	1	1.8	4.6	ug/m3		12/28/16 15:14	ZZ	
1,3,5-Trimethylbenzene	ND	1	4.9	4.9	ug/m3		12/28/16 15:14	ZZ	
1,3-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/28/16 15:14	ZZ	
1,4-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/28/16 15:14	ZZ	
4-Ethyltoluene	ND	1	2.5	4.9	ug/m3		12/28/16 15:14	ZZ	
Benzene	ND	1	1	3.2	ug/m3		12/28/16 15:14	ZZ	
Bromodichloromethane	ND	1	2.7	6.7	ug/m3		12/28/16 15:14	ZZ	
Bromoform	ND	1	4.1	10.3	ug/m3		12/28/16 15:14	ZZ	
Bromomethane	ND	1	3.1	3.9	ug/m3		12/28/16 15:14	ZZ	
Carbon Tetrachloride	ND	1	1.9	6.3	ug/m3		12/28/16 15:14	ZZ	
Chlorobenzene	ND	1	1.8	4.6	ug/m3		12/28/16 15:14	ZZ	
Chlorodibromomethane	ND	1	3.4	8.5	ug/m3		12/28/16 15:14	ZZ	
Chloroethane	ND	1	13	13	ug/m3		12/28/16 15:14	ZZ	
Chloroform	ND	1	4.9	4.9	ug/m3		12/28/16 15:14	ZZ	
Chloromethane	ND	1	10.5	10.5	ug/m3		12/28/16 15:14	ZZ	
cis-1,2-Dichloroethene	ND	1	3.2	4	ug/m3		12/28/16 15:14	ZZ	
cis-1,3-dichloropropene	ND	1	1.8	4.5	ug/m3		12/28/16 15:14	ZZ	
Dichlorodifluoromethane	ND	1	2.5	4.9	ug/m3		12/28/16 15:14	ZZ	
Ethylbenzene	ND	1	1.7	4.3	ug/m3		12/28/16 15:14	ZZ	
m and p-Xylene	ND	1	1.7	4.3	ug/m3		12/28/16 15:14	ZZ	
Methylene chloride	ND	1	3.5	3.5	ug/m3		12/28/16 15:14	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	1.4	3.6	ug/m3		12/28/16 15:14	ZZ	
o-Xylene	ND	1	2.2	4.3	ug/m3		12/28/16 15:14	ZZ	
Styrene	ND	1	1.3	4.3	ug/m3		12/28/16 15:14	ZZ	
Tetrachloroethene	ND	1	2.7	6.8	ug/m3		12/28/16 15:14	ZZ	
Toluene	ND	1	1.5	3.8	ug/m3		12/28/16 15:14	ZZ	B
trans-1,2-dichloroethene	ND	1	3.2	4	ug/m3		12/28/16 15:14	ZZ	
trans-1,3-dichloropropene	ND	1	1.2	4	ug/m3		12/28/16 15:14	ZZ	
Trichloroethene	ND	1	1.6	5.4	ug/m3		12/28/16 15:14	ZZ	
Trichlorofluoromethane	**45.5**	1	1.7	5.6	ug/m3		12/28/16 15:14	ZZ	
Vinyl Chloride	ND	1	1	2.6	ug/m3		12/28/16 15:14	ZZ	
Xylenes (Total)	ND	1	2.2	4.3	ug/m3		12/28/16 15:14	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 12:05	**Site:**			
Sample #:	**385824-002**	**Client Sample #:**	S1-SG1-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1173906	
1,1,1-Trichloroethane	ND	1	1.1	5.5	ug/m3		12/27/16 15:48	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	4.1	6.9	ug/m3		12/27/16 15:48	ZZ	
1,1,2-Trichloroethane	ND	1	1.7	5.5	ug/m3		12/27/16 15:48	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	3.1	7.7	ug/m3		12/27/16 15:48	ZZ	
1,1-Dichloroethane	ND	1	1.2	4.1	ug/m3		12/27/16 15:48	ZZ	
1,1-Dichloroethene	ND	1	2.4	4	ug/m3		12/27/16 15:48	ZZ	
1,2,4-Trichlorobenzene	ND	1	3.7	7.4	ug/m3		12/27/16 15:48	ZZ	
1,2,4-Trimethylbenzene	ND	1	2	4.9	ug/m3		12/27/16 15:48	ZZ	
1,2-Dibromoethane	ND	1	3.9	7.7	ug/m3		12/27/16 15:48	ZZ	
1,2-Dichlorobenzene	ND	1	36	60	ug/m3		12/27/16 15:48	ZZ	
1,2-Dichloroethane	ND	1	1.6	4.1	ug/m3		12/27/16 15:48	ZZ	
1,2-Dichloropropane	ND	1	1.8	4.6	ug/m3		12/27/16 15:48	ZZ	
1,3,5-Trimethylbenzene	ND	1	4.9	4.9	ug/m3		12/27/16 15:48	ZZ	
1,3-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 15:48	ZZ	
1,4-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 15:48	ZZ	
4-Ethyltoluene	**5.9**	1	2.5	4.9	ug/m3		12/27/16 15:48	ZZ	
Benzene	**1.3 J**	1	1	3.2	ug/m3		12/27/16 15:48	ZZ	J
Bromodichloromethane	ND	1	2.7	6.7	ug/m3		12/27/16 15:48	ZZ	
Bromoform	ND	1	4.1	10.3	ug/m3		12/27/16 15:48	ZZ	
Bromomethane	ND	1	3.1	3.9	ug/m3		12/27/16 15:48	ZZ	
Carbon Tetrachloride	ND	1	1.9	6.3	ug/m3		12/27/16 15:48	ZZ	
Chlorobenzene	ND	1	1.8	4.6	ug/m3		12/27/16 15:48	ZZ	
Chlorodibromomethane	ND	1	3.4	8.5	ug/m3		12/27/16 15:48	ZZ	
Chloroethane	ND	1	13	13	ug/m3		12/27/16 15:48	ZZ	
Chloroform	ND	1	4.9	4.9	ug/m3		12/27/16 15:48	ZZ	
Chloromethane	ND	1	10.5	10.5	ug/m3		12/27/16 15:48	ZZ	
cis-1,2-Dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 15:48	ZZ	
cis-1,3-dichloropropene	ND	1	1.8	4.5	ug/m3		12/27/16 15:48	ZZ	
Dichlorodifluoromethane	**3.5 J**	1	2.5	4.9	ug/m3		12/27/16 15:48	ZZ	J
Ethylbenzene	**6.5**	1	1.7	4.3	ug/m3		12/27/16 15:48	ZZ	
m and p-Xylene	**14.8**	1	1.7	4.3	ug/m3		12/27/16 15:48	ZZ	
Methylene chloride	ND	1	3.5	3.5	ug/m3		12/27/16 15:48	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	1.4	3.6	ug/m3		12/27/16 15:48	ZZ	
o-Xylene	**4.3**	1	2.2	4.3	ug/m3		12/27/16 15:48	ZZ	
Styrene	**30.2**	1	1.3	4.3	ug/m3		12/27/16 15:48	ZZ	
Tetrachloroethene	**8.1**	1	2.7	6.8	ug/m3		12/27/16 15:48	ZZ	
Toluene	**13.2**	1	1.5	3.8	ug/m3		12/27/16 15:48	ZZ	
trans-1,2-dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 15:48	ZZ	
trans-1,3-dichloropropene	ND	1	1.2	4	ug/m3		12/27/16 15:48	ZZ	
Trichloroethene	ND	1	1.6	5.4	ug/m3		12/27/16 15:48	ZZ	
Trichlorofluoromethane	**130**	1	1.7	5.6	ug/m3		12/27/16 15:48	ZZ	
Vinyl Chloride	ND	1	1	2.6	ug/m3		12/27/16 15:48	ZZ	
Xylenes (Total)	**19.1**	1	2.2	4.3	ug/m3		12/27/16 15:48	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:30	**Site:**			
Sample #:	**385824-003**	**Client Sample #:**	S2/SG2-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:		QC1173906
1,1,1-Trichloroethane	ND	1	1.1	5.5	ug/m3		12/27/16 16:35	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	4.1	6.9	ug/m3		12/27/16 16:35	ZZ	
1,1,2-Trichloroethane	ND	1	1.7	5.5	ug/m3		12/27/16 16:35	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	3.1	7.7	ug/m3		12/27/16 16:35	ZZ	
1,1-Dichloroethane	ND	1	1.2	4.1	ug/m3		12/27/16 16:35	ZZ	
1,1-Dichloroethene	ND	1	2.4	4	ug/m3		12/27/16 16:35	ZZ	
1,2,4-Trichlorobenzene	ND	1	3.7	7.4	ug/m3		12/27/16 16:35	ZZ	
1,2,4-Trimethylbenzene	**2.9 J**	1	2	4.9	ug/m3		12/27/16 16:35	ZZ	J
1,2-Dibromoethane	ND	1	3.9	7.7	ug/m3		12/27/16 16:35	ZZ	
1,2-Dichlorobenzene	ND	1	36	60	ug/m3		12/27/16 16:35	ZZ	
1,2-Dichloroethane	ND	1	1.6	4.1	ug/m3		12/27/16 16:35	ZZ	
1,2-Dichloropropane	ND	1	1.8	4.6	ug/m3		12/27/16 16:35	ZZ	
1,3,5-Trimethylbenzene	ND	1	4.9	4.9	ug/m3		12/27/16 16:35	ZZ	
1,3-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 16:35	ZZ	
1,4-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 16:35	ZZ	
4-Ethyltoluene	**7.9**	1	2.5	4.9	ug/m3		12/27/16 16:35	ZZ	
Benzene	**3.2**	1	1	3.2	ug/m3		12/27/16 16:35	ZZ	
Bromodichloromethane	ND	1	2.7	6.7	ug/m3		12/27/16 16:35	ZZ	
Bromoform	ND	1	4.1	10.3	ug/m3		12/27/16 16:35	ZZ	
Bromomethane	ND	1	3.1	3.9	ug/m3		12/27/16 16:35	ZZ	
Carbon Tetrachloride	ND	1	1.9	6.3	ug/m3		12/27/16 16:35	ZZ	
Chlorobenzene	ND	1	1.8	4.6	ug/m3		12/27/16 16:35	ZZ	
Chlorodibromomethane	ND	1	3.4	8.5	ug/m3		12/27/16 16:35	ZZ	
Chloroethane	ND	1	13	13	ug/m3		12/27/16 16:35	ZZ	
Chloroform	ND	1	4.9	4.9	ug/m3		12/27/16 16:35	ZZ	
Chloromethane	ND	1	10.5	10.5	ug/m3		12/27/16 16:35	ZZ	
cis-1,2-Dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 16:35	ZZ	
cis-1,3-dichloropropene	ND	1	1.8	4.5	ug/m3		12/27/16 16:35	ZZ	
Dichlorodifluoromethane	**3.0 J**	1	2.5	4.9	ug/m3		12/27/16 16:35	ZZ	J
Ethylbenzene	**10.4**	1	1.7	4.3	ug/m3		12/27/16 16:35	ZZ	
m and p-Xylene	**43.8**	1	1.7	4.3	ug/m3		12/27/16 16:35	ZZ	
Methylene chloride	ND	1	3.5	3.5	ug/m3		12/27/16 16:35	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	1.4	3.6	ug/m3		12/27/16 16:35	ZZ	
o-Xylene	**11.3**	1	2.2	4.3	ug/m3		12/27/16 16:35	ZZ	
Styrene	**10.6**	1	1.3	4.3	ug/m3		12/27/16 16:35	ZZ	
Tetrachloroethene	**4.1 J**	1	2.7	6.8	ug/m3		12/27/16 16:35	ZZ	J
Toluene	**38.8**	1	1.5	3.8	ug/m3		12/27/16 16:35	ZZ	
trans-1,2-dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 16:35	ZZ	
trans-1,3-dichloropropene	ND	1	1.2	4	ug/m3		12/27/16 16:35	ZZ	
Trichloroethene	ND	1	1.6	5.4	ug/m3		12/27/16 16:35	ZZ	
Trichlorofluoromethane	**37.7**	1	1.7	5.6	ug/m3		12/27/16 16:35	ZZ	
Vinyl Chloride	ND	1	1	2.6	ug/m3		12/27/16 16:35	ZZ	
Xylenes (Total)	**55.1**	1	2.2	4.3	ug/m3		12/27/16 16:35	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:50	**Site:**			
Sample #:	**385824-004**	**Client Sample #:**	S2/SG2-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1173906	
1,1,1-Trichloroethane	ND	1	1.1	5.5	ug/m3		12/27/16 17:22	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	4.1	6.9	ug/m3		12/27/16 17:22	ZZ	
1,1,2-Trichloroethane	ND	1	1.7	5.5	ug/m3		12/27/16 17:22	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	3.1	7.7	ug/m3		12/27/16 17:22	ZZ	
1,1-Dichloroethane	ND	1	1.2	4.1	ug/m3		12/27/16 17:22	ZZ	
1,1-Dichloroethene	ND	1	2.4	4	ug/m3		12/27/16 17:22	ZZ	
1,2,4-Trichlorobenzene	ND	1	3.7	7.4	ug/m3		12/27/16 17:22	ZZ	
1,2,4-Trimethylbenzene	ND	1	2	4.9	ug/m3		12/27/16 17:22	ZZ	
1,2-Dibromoethane	ND	1	3.9	7.7	ug/m3		12/27/16 17:22	ZZ	
1,2-Dichlorobenzene	ND	1	36	60	ug/m3		12/27/16 17:22	ZZ	
1,2-Dichloroethane	ND	1	1.6	4.1	ug/m3		12/27/16 17:22	ZZ	
1,2-Dichloropropane	ND	1	1.8	4.6	ug/m3		12/27/16 17:22	ZZ	
1,3,5-Trimethylbenzene	ND	1	4.9	4.9	ug/m3		12/27/16 17:22	ZZ	
1,3-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 17:22	ZZ	
1,4-Dichlorobenzene	ND	1	3.6	6	ug/m3		12/27/16 17:22	ZZ	
4-Ethyltoluene	**2.9 J**	1	2.5	4.9	ug/m3		12/27/16 17:22	ZZ	J
Benzene	ND	1	1	3.2	ug/m3		12/27/16 17:22	ZZ	
Bromodichloromethane	ND	1	2.7	6.7	ug/m3		12/27/16 17:22	ZZ	
Bromoform	ND	1	4.1	10.3	ug/m3		12/27/16 17:22	ZZ	
Bromomethane	ND	1	3.1	3.9	ug/m3		12/27/16 17:22	ZZ	
Carbon Tetrachloride	ND	1	1.9	6.3	ug/m3		12/27/16 17:22	ZZ	
Chlorobenzene	ND	1	1.8	4.6	ug/m3		12/27/16 17:22	ZZ	
Chlorodibromomethane	ND	1	3.4	8.5	ug/m3		12/27/16 17:22	ZZ	
Chloroethane	ND	1	13	13	ug/m3		12/27/16 17:22	ZZ	
Chloroform	ND	1	4.9	4.9	ug/m3		12/27/16 17:22	ZZ	
Chloromethane	ND	1	10.5	10.5	ug/m3		12/27/16 17:22	ZZ	
cis-1,2-Dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 17:22	ZZ	
cis-1,3-dichloropropene	ND	1	1.8	4.5	ug/m3		12/27/16 17:22	ZZ	
Dichlorodifluoromethane	**3.0 J**	1	2.5	4.9	ug/m3		12/27/16 17:22	ZZ	J
Ethylbenzene	**3.9 J**	1	1.7	4.3	ug/m3		12/27/16 17:22	ZZ	J
m and p-Xylene	**11.3**	1	1.7	4.3	ug/m3		12/27/16 17:22	ZZ	
Methylene chloride	ND	1	3.5	3.5	ug/m3		12/27/16 17:22	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	1.4	3.6	ug/m3		12/27/16 17:22	ZZ	
o-Xylene	**3.0 J**	1	2.2	4.3	ug/m3		12/27/16 17:22	ZZ	J
Styrene	**12.4**	1	1.3	4.3	ug/m3		12/27/16 17:22	ZZ	
Tetrachloroethene	**3.4 J**	1	2.7	6.8	ug/m3		12/27/16 17:22	ZZ	J
Toluene	**9.4**	1	1.5	3.8	ug/m3		12/27/16 17:22	ZZ	
trans-1,2-dichloroethene	ND	1	3.2	4	ug/m3		12/27/16 17:22	ZZ	
trans-1,3-dichloropropene	ND	1	1.2	4	ug/m3		12/27/16 17:22	ZZ	
Trichloroethene	ND	1	1.6	5.4	ug/m3		12/27/16 17:22	ZZ	
Trichlorofluoromethane	**46.6**	1	1.7	5.6	ug/m3		12/27/16 17:22	ZZ	
Vinyl Chloride	ND	1	1	2.6	ug/m3		12/27/16 17:22	ZZ	
Xylenes (Total)	**14.3**	1	2.2	4.3	ug/m3		12/27/16 17:22	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:25	**Site:**			
Sample #:	**385824-005**	**Client Sample #:**	S3/SG3-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1173906	
1,1,1-Trichloroethane	ND	2	2.2	11	ug/m3		12/27/16 18:06	ZZ	
1,1,2,2-Tetrachloroethane	ND	2	8.2	13.8	ug/m3		12/27/16 18:06	ZZ	
1,1,2-Trichloroethane	ND	2	3.4	11	ug/m3		12/27/16 18:06	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	2	6.2	15.4	ug/m3		12/27/16 18:06	ZZ	
1,1-Dichloroethane	ND	2	2.4	8.2	ug/m3		12/27/16 18:06	ZZ	
1,1-Dichloroethene	ND	2	4.8	8	ug/m3		12/27/16 18:06	ZZ	
1,2,4-Trichlorobenzene	ND	2	7.4	14.8	ug/m3		12/27/16 18:06	ZZ	
1,2,4-Trimethylbenzene	ND	2	4	9.8	ug/m3		12/27/16 18:06	ZZ	
1,2-Dibromoethane	ND	2	7.8	15.4	ug/m3		12/27/16 18:06	ZZ	
1,2-Dichlorobenzene	ND	2	72	120	ug/m3		12/27/16 18:06	ZZ	
1,2-Dichloroethane	ND	2	3.2	8.2	ug/m3		12/27/16 18:06	ZZ	
1,2-Dichloropropane	ND	2	3.6	9.2	ug/m3		12/27/16 18:06	ZZ	
1,3,5-Trimethylbenzene	ND	2	9.8	9.8	ug/m3		12/27/16 18:06	ZZ	
1,3-Dichlorobenzene	ND	2	7.2	12	ug/m3		12/27/16 18:06	ZZ	
1,4-Dichlorobenzene	ND	2	7.2	12	ug/m3		12/27/16 18:06	ZZ	
4-Ethyltoluene	ND	2	5	9.8	ug/m3		12/27/16 18:06	ZZ	
Benzene	ND	2	2	6.4	ug/m3		12/27/16 18:06	ZZ	
Bromodichloromethane	ND	2	5.4	13.4	ug/m3		12/27/16 18:06	ZZ	
Bromoform	ND	2	8.2	20.6	ug/m3		12/27/16 18:06	ZZ	
Bromomethane	ND	2	6.2	7.8	ug/m3		12/27/16 18:06	ZZ	
Carbon Tetrachloride	ND	2	3.8	12.6	ug/m3		12/27/16 18:06	ZZ	
Chlorobenzene	ND	2	3.6	9.2	ug/m3		12/27/16 18:06	ZZ	
Chlorodibromomethane	ND	2	6.8	17	ug/m3		12/27/16 18:06	ZZ	
Chloroethane	ND	2	26	26	ug/m3		12/27/16 18:06	ZZ	
Chloroform	ND	2	9.8	9.8	ug/m3		12/27/16 18:06	ZZ	
Chloromethane	ND	2	21	21	ug/m3		12/27/16 18:06	ZZ	
cis-1,2-Dichloroethene	ND	2	6.4	8	ug/m3		12/27/16 18:06	ZZ	
cis-1,3-dichloropropene	ND	2	3.6	9	ug/m3		12/27/16 18:06	ZZ	
Dichlorodifluoromethane	ND	2	5	9.8	ug/m3		12/27/16 18:06	ZZ	
Ethylbenzene	**5.2 J**	2	3.4	8.6	ug/m3		12/27/16 18:06	ZZ	J
m and p-Xylene	**20.0**	2	3.4	8.6	ug/m3		12/27/16 18:06	ZZ	
Methylene chloride	ND	2	7	7	ug/m3		12/27/16 18:06	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	2	2.8	7.2	ug/m3		12/27/16 18:06	ZZ	
o-Xylene	**6.9 J**	2	4.4	8.6	ug/m3		12/27/16 18:06	ZZ	J
Styrene	**6.8 J**	2	2.6	8.6	ug/m3		12/27/16 18:06	ZZ	J
Tetrachloroethene	ND	2	5.4	13.6	ug/m3		12/27/16 18:06	ZZ	
Toluene	**9.8**	2	3	7.6	ug/m3		12/27/16 18:06	ZZ	
trans-1,2-dichloroethene	ND	2	6.4	8	ug/m3		12/27/16 18:06	ZZ	
trans-1,3-dichloropropene	ND	2	2.4	8	ug/m3		12/27/16 18:06	ZZ	
Trichloroethene	ND	2	3.2	10.8	ug/m3		12/27/16 18:06	ZZ	
Trichlorofluoromethane	ND	2	3.4	11.2	ug/m3		12/27/16 18:06	ZZ	
Vinyl Chloride	ND	2	2	5.2	ug/m3		12/27/16 18:06	ZZ	
Xylenes (Total)	**26.9**	2	4.4	8.6	ug/m3		12/27/16 18:06	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:35	**Site:**			
Sample #:	**385824-006**	**Client Sample #:**	S3/SG3-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1174048	
1,1,1-Trichloroethane	ND	1	1.1	5.5	ug/m3		01/04/17 11:17	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	4.1	6.9	ug/m3		01/04/17 11:17	ZZ	
1,1,2-Trichloroethane	ND	1	1.7	5.5	ug/m3		01/04/17 11:17	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	3.1	7.7	ug/m3		01/04/17 11:17	ZZ	
1,1-Dichloroethane	ND	1	1.2	4.1	ug/m3		01/04/17 11:17	ZZ	
1,1-Dichloroethene	ND	1	2.4	4	ug/m3		01/04/17 11:17	ZZ	
1,2,4-Trichlorobenzene	ND	1	3.7	7.4	ug/m3		01/04/17 11:17	ZZ	
1,2,4-Trimethylbenzene	ND	1	2	4.9	ug/m3		01/04/17 11:17	ZZ	
1,2-Dibromoethane	ND	1	3.9	7.7	ug/m3		01/04/17 11:17	ZZ	
1,2-Dichlorobenzene	ND	1	36	60	ug/m3		01/04/17 11:17	ZZ	
1,2-Dichloroethane	ND	1	1.6	4.1	ug/m3		01/04/17 11:17	ZZ	
1,2-Dichloropropane	ND	1	1.8	4.6	ug/m3		01/04/17 11:17	ZZ	
1,3,5-Trimethylbenzene	ND	1	4.9	4.9	ug/m3		01/04/17 11:17	ZZ	
1,3-Dichlorobenzene	ND	1	3.6	6	ug/m3		01/04/17 11:17	ZZ	
1,4-Dichlorobenzene	ND	1	3.6	6	ug/m3		01/04/17 11:17	ZZ	
4-Ethyltoluene	ND	1	2.5	4.9	ug/m3		01/04/17 11:17	ZZ	
Benzene	**1.6 J**	1	1	3.2	ug/m3		01/04/17 11:17	ZZ	J
Bromodichloromethane	ND	1	2.7	6.7	ug/m3		01/04/17 11:17	ZZ	
Bromoform	ND	1	4.1	10.3	ug/m3		01/04/17 11:17	ZZ	
Bromomethane	ND	1	3.1	3.9	ug/m3		01/04/17 11:17	ZZ	
Carbon Tetrachloride	ND	1	1.9	6.3	ug/m3		01/04/17 11:17	ZZ	
Chlorobenzene	ND	1	1.8	4.6	ug/m3		01/04/17 11:17	ZZ	
Chlorodibromomethane	ND	1	3.4	8.5	ug/m3		01/04/17 11:17	ZZ	
Chloroethane	ND	1	13	13	ug/m3		01/04/17 11:17	ZZ	
Chloroform	ND	1	4.9	4.9	ug/m3		01/04/17 11:17	ZZ	
Chloromethane	ND	1	10.5	10.5	ug/m3		01/04/17 11:17	ZZ	
cis-1,2-Dichloroethene	ND	1	3.2	4	ug/m3		01/04/17 11:17	ZZ	
cis-1,3-dichloropropene	ND	1	1.8	4.5	ug/m3		01/04/17 11:17	ZZ	
Dichlorodifluoromethane	ND	1	2.5	4.9	ug/m3		01/04/17 11:17	ZZ	
Ethylbenzene	**3.5 J**	1	1.7	4.3	ug/m3		01/04/17 11:17	ZZ	J
m and p-Xylene	**16.9**	1	1.7	4.3	ug/m3		01/04/17 11:17	ZZ	
Methylene chloride	ND	1	3.5	3.5	ug/m3		01/04/17 11:17	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	1.4	3.6	ug/m3		01/04/17 11:17	ZZ	
o-Xylene	**5.2**	1	2.2	4.3	ug/m3		01/04/17 11:17	ZZ	
Styrene	**6.0**	1	1.3	4.3	ug/m3		01/04/17 11:17	ZZ	
Tetrachloroethene	ND	1	2.7	6.8	ug/m3		01/04/17 11:17	ZZ	
Toluene	**7.5**	1	1.5	3.8	ug/m3		01/04/17 11:17	ZZ	
trans-1,2-dichloroethene	ND	1	3.2	4	ug/m3		01/04/17 11:17	ZZ	
trans-1,3-dichloropropene	ND	1	1.2	4	ug/m3		01/04/17 11:17	ZZ	
Trichloroethene	ND	1	1.6	5.4	ug/m3		01/04/17 11:17	ZZ	
Trichlorofluoromethane	ND	1	1.7	5.6	ug/m3		01/04/17 11:17	ZZ	
Vinyl Chloride	ND	1	1	2.6	ug/m3		01/04/17 11:17	ZZ	
Xylenes (Total)	**22.1**	1	2.2	4.3	ug/m3		01/04/17 11:17	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:40	**Site:**			
Sample #:	**385824-007**	**Client Sample #:**	S50/SG4-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1174048	
1,1,1-Trichloroethane	ND	2	2.2	11	ug/m3		01/04/17 12:04	ZZ	
1,1,2,2-Tetrachloroethane	ND	2	8.2	13.8	ug/m3		01/04/17 12:04	ZZ	
1,1,2-Trichloroethane	ND	2	3.4	11	ug/m3		01/04/17 12:04	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	2	6.2	15.4	ug/m3		01/04/17 12:04	ZZ	
1,1-Dichloroethane	ND	2	2.4	8.2	ug/m3		01/04/17 12:04	ZZ	
1,1-Dichloroethene	ND	2	4.8	8	ug/m3		01/04/17 12:04	ZZ	
1,2,4-Trichlorobenzene	ND	2	7.4	14.8	ug/m3		01/04/17 12:04	ZZ	
1,2,4-Trimethylbenzene	ND	2	4	9.8	ug/m3		01/04/17 12:04	ZZ	
1,2-Dibromoethane	ND	2	7.8	15.4	ug/m3		01/04/17 12:04	ZZ	
1,2-Dichlorobenzene	ND	2	72	120	ug/m3		01/04/17 12:04	ZZ	
1,2-Dichloroethane	ND	2	3.2	8.2	ug/m3		01/04/17 12:04	ZZ	
1,2-Dichloropropane	ND	2	3.6	9.2	ug/m3		01/04/17 12:04	ZZ	
1,3,5-Trimethylbenzene	ND	2	9.8	9.8	ug/m3		01/04/17 12:04	ZZ	
1,3-Dichlorobenzene	ND	2	7.2	12	ug/m3		01/04/17 12:04	ZZ	
1,4-Dichlorobenzene	ND	2	7.2	12	ug/m3		01/04/17 12:04	ZZ	
4-Ethyltoluene	ND	2	5	9.8	ug/m3		01/04/17 12:04	ZZ	
Benzene	ND	2	2	6.4	ug/m3		01/04/17 12:04	ZZ	
Bromodichloromethane	ND	2	5.4	13.4	ug/m3		01/04/17 12:04	ZZ	
Bromoform	ND	2	8.2	20.6	ug/m3		01/04/17 12:04	ZZ	
Bromomethane	ND	2	6.2	7.8	ug/m3		01/04/17 12:04	ZZ	
Carbon Tetrachloride	ND	2	3.8	12.6	ug/m3		01/04/17 12:04	ZZ	
Chlorobenzene	ND	2	3.6	9.2	ug/m3		01/04/17 12:04	ZZ	
Chlorodibromomethane	ND	2	6.8	17	ug/m3		01/04/17 12:04	ZZ	
Chloroethane	ND	2	26	26	ug/m3		01/04/17 12:04	ZZ	
Chloroform	ND	2	9.8	9.8	ug/m3		01/04/17 12:04	ZZ	
Chloromethane	ND	2	21	21	ug/m3		01/04/17 12:04	ZZ	
cis-1,2-Dichloroethene	ND	2	6.4	8	ug/m3		01/04/17 12:04	ZZ	
cis-1,3-dichloropropene	ND	2	3.6	9	ug/m3		01/04/17 12:04	ZZ	
Dichlorodifluoromethane	ND	2	5	9.8	ug/m3		01/04/17 12:04	ZZ	
Ethylbenzene	**5.2 J**	2	3.4	8.6	ug/m3		01/04/17 12:04	ZZ	J
m and p-Xylene	**21.7**	2	3.4	8.6	ug/m3		01/04/17 12:04	ZZ	
Methylene chloride	ND	2	7	7	ug/m3		01/04/17 12:04	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	2	2.8	7.2	ug/m3		01/04/17 12:04	ZZ	
o-Xylene	**6.1 J**	2	4.4	8.6	ug/m3		01/04/17 12:04	ZZ	J
Styrene	**5.1 J**	2	2.6	8.6	ug/m3		01/04/17 12:04	ZZ	J
Tetrachloroethene	**19.0**	2	5.4	13.6	ug/m3		01/04/17 12:04	ZZ	
Toluene	**15.1**	2	3	7.6	ug/m3		01/04/17 12:04	ZZ	
trans-1,2-dichloroethene	ND	2	6.4	8	ug/m3		01/04/17 12:04	ZZ	
trans-1,3-dichloropropene	ND	2	2.4	8	ug/m3		01/04/17 12:04	ZZ	
Trichloroethene	ND	2	3.2	10.8	ug/m3		01/04/17 12:04	ZZ	
Trichlorofluoromethane	**296**	2	3.4	11.2	ug/m3		01/04/17 12:04	ZZ	
Vinyl Chloride	ND	2	2	5.2	ug/m3		01/04/17 12:04	ZZ	
Xylenes (Total)	**27.8**	2	4.4	8.6	ug/m3		01/04/17 12:04	ZZ	

Matrix:	Air	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:05	**Site:**			
Sample #:	**385824-008**	**Client Sample #:**	S50/SG4-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B	Prep Method: Method						QCBatchID:	QC1174048	
1,1,1-Trichloroethane	ND	2.5	2.75	13.75	ug/m3		01/04/17 12:48	ZZ	
1,1,2,2-Tetrachloroethane	ND	2.5	10.25	17.25	ug/m3		01/04/17 12:48	ZZ	
1,1,2-Trichloroethane	ND	2.5	4.25	13.75	ug/m3		01/04/17 12:48	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	2.5	7.75	19.25	ug/m3		01/04/17 12:48	ZZ	
1,1-Dichloroethane	ND	2.5	3	10.25	ug/m3		01/04/17 12:48	ZZ	
1,1-Dichloroethene	ND	2.5	6	10	ug/m3		01/04/17 12:48	ZZ	
1,2,4-Trichlorobenzene	ND	2.5	9.25	18.5	ug/m3		01/04/17 12:48	ZZ	
1,2,4-Trimethylbenzene	ND	2.5	5	12.25	ug/m3		01/04/17 12:48	ZZ	
1,2-Dibromoethane	ND	2.5	9.75	19.25	ug/m3		01/04/17 12:48	ZZ	
1,2-Dichlorobenzene	ND	2.5	90	150	ug/m3		01/04/17 12:48	ZZ	
1,2-Dichloroethane	ND	2.5	4	10.25	ug/m3		01/04/17 12:48	ZZ	
1,2-Dichloropropane	ND	2.5	4.5	11.5	ug/m3		01/04/17 12:48	ZZ	
1,3,5-Trimethylbenzene	ND	2.5	12.25	12.25	ug/m3		01/04/17 12:48	ZZ	
1,3-Dichlorobenzene	ND	2.5	9	15	ug/m3		01/04/17 12:48	ZZ	
1,4-Dichlorobenzene	ND	2.5	9	15	ug/m3		01/04/17 12:48	ZZ	
4-Ethyltoluene	ND	2.5	6.25	12.25	ug/m3		01/04/17 12:48	ZZ	
Benzene	ND	2.5	2.5	8	ug/m3		01/04/17 12:48	ZZ	
Bromodichloromethane	ND	2.5	6.75	16.75	ug/m3		01/04/17 12:48	ZZ	
Bromoform	ND	2.5	10.25	25.75	ug/m3		01/04/17 12:48	ZZ	
Bromomethane	ND	2.5	7.75	9.75	ug/m3		01/04/17 12:48	ZZ	
Carbon Tetrachloride	ND	2.5	4.75	15.75	ug/m3		01/04/17 12:48	ZZ	
Chlorobenzene	ND	2.5	4.5	11.5	ug/m3		01/04/17 12:48	ZZ	
Chlorodibromomethane	ND	2.5	8.5	21.25	ug/m3		01/04/17 12:48	ZZ	
Chloroethane	ND	2.5	32.5	32.5	ug/m3		01/04/17 12:48	ZZ	
Chloroform	ND	2.5	12.25	12.25	ug/m3		01/04/17 12:48	ZZ	
Chloromethane	ND	2.5	26.25	26.25	ug/m3		01/04/17 12:48	ZZ	
cis-1,2-Dichloroethene	ND	2.5	8	10	ug/m3		01/04/17 12:48	ZZ	
cis-1,3-dichloropropene	ND	2.5	4.5	11.25	ug/m3		01/04/17 12:48	ZZ	
Dichlorodifluoromethane	ND	2.5	6.25	12.25	ug/m3		01/04/17 12:48	ZZ	
Ethylbenzene	ND	2.5	4.25	10.75	ug/m3		01/04/17 12:48	ZZ	
m and p-Xylene	**13.0**	2.5	4.25	10.75	ug/m3		01/04/17 12:48	ZZ	
Methylene chloride	ND	2.5	8.75	8.75	ug/m3		01/04/17 12:48	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	2.5	3.5	9	ug/m3		01/04/17 12:48	ZZ	
o-Xylene	ND	2.5	5.5	10.75	ug/m3		01/04/17 12:48	ZZ	
Styrene	**5.3 J**	2.5	3.25	10.75	ug/m3		01/04/17 12:48	ZZ	J
Tetrachloroethene	**10.2 J**	2.5	6.75	17	ug/m3		01/04/17 12:48	ZZ	J
Toluene	**11.3**	2.5	3.75	9.5	ug/m3		01/04/17 12:48	ZZ	
trans-1,2-dichloroethene	ND	2.5	8	10	ug/m3		01/04/17 12:48	ZZ	
trans-1,3-dichloropropene	ND	2.5	3	10	ug/m3		01/04/17 12:48	ZZ	
Trichloroethene	ND	2.5	4	13.5	ug/m3		01/04/17 12:48	ZZ	
Trichlorofluoromethane	**264**	2.5	4.25	14	ug/m3		01/04/17 12:48	ZZ	
Vinyl Chloride	ND	2.5	2.5	6.5	ug/m3		01/04/17 12:48	ZZ	
Xylenes (Total)	**16.3**	2.5	5.5	10.75	ug/m3		01/04/17 12:48	ZZ	

QCBatchID: QC1173906	Analyst: nicollez	Method: EPA 8260B
Matrix: Air	Analyzed: 12/27/2016	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173906MB1					
1,1,1-Trichloroethane	ND	ug/m3	1.1	5.5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	4.1	6.9	
1,1,2-Trichloroethane	ND	ug/m3	1.7	5.5	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.1	7.7	
1,1-Dichloroethane	ND	ug/m3	1.2	4.1	
1,1-Dichloroethene	ND	ug/m3	2.4	4	
1,2,4-Trichlorobenzene	ND	ug/m3	3.7	7.4	
1,2,4-Trimethylbenzene	ND	ug/m3	2	4.9	
1,2-Dibromoethane	ND	ug/m3	3.9	7.7	
1,2-Dichlorobenzene	ND	ug/m3	36	60	
1,2-Dichloroethane	ND	ug/m3	1.6	4.1	
1,2-Dichloropropane	ND	ug/m3	1.8	4.6	
1,3,5-Trimethylbenzene	ND	ug/m3	4.9	4.9	
1,3-Dichlorobenzene	ND	ug/m3	3.6	6	
1,4-Dichlorobenzene	ND	ug/m3	3.6	6	
4-Ethyltoluene	ND	ug/m3	2.5	4.9	
Benzene	ND	ug/m3	1	3.2	
Bromodichloromethane	ND	ug/m3	2.7	6.7	
Bromoform	ND	ug/m3	4.1	10.3	
Bromomethane	ND	ug/m3	3.1	3.9	
Carbon Tetrachloride	ND	ug/m3	1.9	6.3	
Chlorobenzene	ND	ug/m3	1.8	4.6	
Chlorodibromomethane	ND	ug/m3	3.4	8.5	
Chloroethane	ND	ug/m3	13	13	
Chloroform	ND	ug/m3	4.9	4.9	
Chloromethane	ND	ug/m3	10.5	10.5	
cis-1,2-Dichloroethene	ND	ug/m3	3.2	4	
cis-1,3-dichloropropene	ND	ug/m3	1.8	4.5	
Dichlorodifluoromethane	ND	ug/m3	2.5	4.9	
Ethylbenzene	ND	ug/m3	1.7	4.3	
m and p-Xylene	ND	ug/m3	1.7	4.3	
Methylene chloride	ND	ug/m3	3.5	3.5	
Methyl-t-butyl Ether (MTBE)	ND	ug/m3	1.4	3.6	
o-Xylene	ND	ug/m3	2.2	4.3	
Styrene	ND	ug/m3	1.3	4.3	
Tetrachloroethene	ND	ug/m3	2.7	6.8	
Toluene	ND	ug/m3	1.5	3.8	
trans-1,2-dichloroethene	ND	ug/m3	3.2	4	
trans-1,3-dichloropropene	ND	ug/m3	1.2	4	
Trichloroethene	ND	ug/m3	1.6	5.4	
Trichlorofluoromethane	ND	ug/m3	1.7	5.6	
Vinyl Chloride	ND	ug/m3	1	2.6	
Xylenes (Total)	ND	ug/m3	2.2	4.3	

QCBatchID: QC1173906	Analyst: nicollez	Method: EPA 8260B
Matrix: Air	Analyzed: 12/27/2016	Instrument: VOA-MS (group)

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1173906DUP1						**Source: 385824-005**
1,2,4-Trimethylbenzene	ND	ND	ug/m3	0.0	20	
1,3,5-Trimethylbenzene	ND	ND	ug/m3	0.0	20	
4-Ethyltoluene	ND	3.9	ug/m3	200.0	20	D
Benzene	ND	ND	ug/m3	0.0	20	
Dichlorodifluoromethane	ND	3.0	ug/m3	200.0	20	D
Ethylbenzene	5.2	4.3	ug/m3	18.9	20	
m and p-Xylene	20.0	18.2	ug/m3	9.4	20	
Methyl-t-butyl Ether (MTBE)	ND	ND	ug/m3	0.0	20	
o-Xylene	6.9	6.1	ug/m3	12.3	20	
Styrene	6.8	6.0	ug/m3	12.5	20	
Tetrachloroethene	ND	4.1	ug/m3	200.0	20	D
Toluene	9.8	9.0	ug/m3	8.5	20	
Trichloroethene	ND	ND	ug/m3	0.0	20	
Trichlorofluoromethane	ND	2.2	ug/m3	200.0	20	D
Xylenes (Total)	26.9	24.3	ug/m3	10.2	20	

QCBatchID: QC1173907	Analyst: nicollez	Method: EPA 8260B
Matrix: Air	Analyzed: 12/28/2016	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173907MB1					
1,1,1-Trichloroethane	ND	ug/m3	1.1	5.5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	4.1	6.9	
1,1,2-Trichloroethane	ND	ug/m3	1.7	5.5	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.1	7.7	
1,1-Dichloroethane	ND	ug/m3	1.2	4.1	
1,1-Dichloroethene	ND	ug/m3	2.4	4	
1,2,4-Trichlorobenzene	ND	ug/m3	3.7	7.4	
1,2,4-Trimethylbenzene	ND	ug/m3	2	4.9	
1,2-Dibromoethane	ND	ug/m3	3.9	7.7	
1,2-Dichlorobenzene	ND	ug/m3	36	60	
1,2-Dichloroethane	ND	ug/m3	1.6	4.1	
1,2-Dichloropropane	ND	ug/m3	1.8	4.6	
1,3,5-Trimethylbenzene	ND	ug/m3	4.9	4.9	
1,3-Dichlorobenzene	ND	ug/m3	3.6	6	
1,4-Dichlorobenzene	ND	ug/m3	3.6	6	
4-Ethyltoluene	ND	ug/m3	2.5	4.9	
Benzene	**1.3 J**	ug/m3	1	3.2	
Bromodichloromethane	ND	ug/m3	2.7	6.7	
Bromoform	ND	ug/m3	4.1	10.3	
Bromomethane	ND	ug/m3	3.1	3.9	
Carbon Tetrachloride	ND	ug/m3	1.9	6.3	
Chlorobenzene	ND	ug/m3	1.8	4.6	
Chlorodibromomethane	ND	ug/m3	3.4	8.5	
Chloroethane	ND	ug/m3	13	13	
Chloroform	ND	ug/m3	4.9	4.9	
Chloromethane	ND	ug/m3	10.5	10.5	
cis-1,2-Dichloroethene	ND	ug/m3	3.2	4	
cis-1,3-dichloropropene	ND	ug/m3	1.8	4.5	
Dichlorodifluoromethane	ND	ug/m3	2.5	4.9	
Ethylbenzene	ND	ug/m3	1.7	4.3	
m and p-Xylene	**3.0 J**	ug/m3	1.7	4.3	
Methylene chloride	ND	ug/m3	3.5	3.5	
Methyl-t-butyl Ether (MTBE)	ND	ug/m3	1.4	3.6	
o-Xylene	ND	ug/m3	2.2	4.3	
Styrene	ND	ug/m3	1.3	4.3	
Tetrachloroethene	ND	ug/m3	2.7	6.8	
Toluene	**4.1**	ug/m3	1.5	3.8	B
trans-1,2-dichloroethene	ND	ug/m3	3.2	4	
trans-1,3-dichloropropene	ND	ug/m3	1.2	4	
Trichloroethene	ND	ug/m3	1.6	5.4	
Trichlorofluoromethane	ND	ug/m3	1.7	5.6	
Vinyl Chloride	ND	ug/m3	1	2.6	
Xylenes (Total)	ND	ug/m3	2.2	4.3	

QCBatchID: QC1173907	Analyst: nicollez	Method: EPA 8260B
Matrix: Air	Analyzed: 12/28/2016	Instrument: VOA-MS (group)

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1173907DUP1						**Source: 385937-001**
1,2,4-Trimethylbenzene	ND	ND	Vppb	0.0	30	
1,3,5-Trimethylbenzene	ND	ND	Vppb	0.0	30	
4-Ethyltoluene	ND	ND	Vppb	0.0	30	
Benzene	ND	ND	Vppb	0.0	30	
Cyclohexane	56	54	Vppb	3.6	30	
Ethylbenzene	ND	ND	Vppb	0.0	30	
m and p-Xylene	ND	ND	Vppb	0.0	30	
Methyl-t-butyl Ether (MTBE)	ND	ND	Vppb	0.0	30	
o-Xylene	ND	ND	Vppb	0.0	30	
Tetrachloroethene	2300	2300	Vppb	0.0	30	
Toluene	ND	ND	Vppb	0.0	30	
Trichloroethene	ND	ND	Vppb	0.0	30	
Trichlorofluoromethane	ND	ND	Vppb	0.0	30	
Xylenes (Total)	ND	ND	Vppb	0.0	30	

QCBatchID: QC1174048	Analyst: DPhan	Method: EPA 8260B
Matrix: Air	Analyzed: 01/05/2017	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174048MB1					
1,1,1-Trichloroethane	ND	ug/m3	1.1	5.5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	4.1	6.9	
1,1,2-Trichloroethane	ND	ug/m3	1.7	5.5	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.1	7.7	
1,1-Dichloroethane	ND	ug/m3	1.2	4.1	
1,1-Dichloroethene	ND	ug/m3	2.4	4	
1,2,4-Trichlorobenzene	ND	ug/m3	3.7	7.4	
1,2,4-Trimethylbenzene	ND	ug/m3	2	4.9	
1,2-Dibromoethane	ND	ug/m3	3.9	7.7	
1,2-Dichlorobenzene	ND	ug/m3	36	60	
1,2-Dichloroethane	ND	ug/m3	1.6	4.1	
1,2-Dichloropropane	ND	ug/m3	1.8	4.6	
1,3,5-Trimethylbenzene	ND	ug/m3	4.9	4.9	
1,3-Dichlorobenzene	ND	ug/m3	3.6	6	
1,4-Dichlorobenzene	ND	ug/m3	3.6	6	
4-Ethyltoluene	ND	ug/m3	2.5	4.9	
Benzene	ND	ug/m3	1	3.2	
Bromodichloromethane	ND	ug/m3	2.7	6.7	
Bromoform	ND	ug/m3	4.1	10.3	
Bromomethane	ND	ug/m3	3.1	3.9	
Carbon Tetrachloride	ND	ug/m3	1.9	6.3	
Chlorobenzene	ND	ug/m3	1.8	4.6	
Chlorodibromomethane	ND	ug/m3	3.4	8.5	
Chloroethane	ND	ug/m3	13	13	
Chloroform	ND	ug/m3	4.9	4.9	
Chloromethane	ND	ug/m3	10.5	10.5	
cis-1,2-Dichloroethene	ND	ug/m3	3.2	4	
cis-1,3-dichloropropene	ND	ug/m3	1.8	4.5	
Dichlorodifluoromethane	ND	ug/m3	2.5	4.9	
Ethylbenzene	ND	ug/m3	1.7	4.3	
m and p-Xylene	ND	ug/m3	1.7	4.3	
Methylene chloride	ND	ug/m3	3.5	3.5	
Methyl-t-butyl Ether (MTBE)	ND	ug/m3	1.4	3.6	
o-Xylene	ND	ug/m3	2.2	4.3	
Styrene	ND	ug/m3	1.3	4.3	
Tetrachloroethene	ND	ug/m3	2.7	6.8	
Toluene	ND	ug/m3	1.5	3.8	
trans-1,2-dichloroethene	ND	ug/m3	3.2	4	
trans-1,3-dichloropropene	ND	ug/m3	1.2	4	
Trichloroethene	ND	ug/m3	1.6	5.4	
Trichlorofluoromethane	ND	ug/m3	1.7	5.6	
Vinyl Chloride	ND	ug/m3	1	2.6	
Xylenes (Total)	ND	ug/m3	2.2	4.3	

QCBatchID: QC1174048	Analyst: DPhan	Method: EPA 8260B
Matrix: Air	Analyzed: 01/05/2017	Instrument: VOA-MS (group)

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1174048DUP1						**Source: 385824-008**
1,2,4-Trimethylbenzene	ND	ND	ug/m3	0.0	20	
1,3,5-Trimethylbenzene	ND	ND	ug/m3	0.0	20	
4-Ethyltoluene	ND	3.7	ug/m3	200.0	20	D
Benzene	ND	ND	ug/m3	0.0	20	
Ethylbenzene	ND	4.3	ug/m3	200.0	20	D
m and p-Xylene	13.0	15.2	ug/m3	15.6	20	
Methyl-t-butyl Ether (MTBE)	ND	ND	ug/m3	0.0	20	
o-Xylene	ND	4.3	ug/m3	200.0	20	D
Styrene	5.3	5.3	ug/m3	0.0	20	
Tetrachloroethene	10.2	11.9	ug/m3	15.4	20	
Toluene	11.3	11.3	ug/m3	0.0	20	
Trichloroethene	ND	ND	ug/m3	0.0	20	
Trichlorofluoromethane	264	263	ug/m3	0.4	20	
Xylenes (Total)	16.3	19.5	ug/m3	17.9	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385824 Page: 1 of 1	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa / R. Giles

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S1/SG1-5'	12/23/16	11:45 AM	A	1/1L						x						
2	S1/SG1-10'	12/23/16	12:05 PM	A	1/1L						x						
3	S2/SG2-5'	12/23/16	1:30 PM	A	1/1L						x						
4	S2/SG2-10'	12/23/16	1:50 PM	A	1/1L						x						
5	S3/SG3-5'	12/23/16	2:25 PM	A	1/1L						x						
6	S3/SG3-10'	12/23/16	2:35 PM	A	1/1L						x						
7	S50/SG4-5'	12/23/16	10:40 AM	A	1/1L						x						
8	S50/SG4-10'	12/23/16	11:05 AM	A	1/1L						x						
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[illegible]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 10:35
1 Received By:	[illegible]	ZAIN PADILLA	EA	12/24/16 10:35 AM.
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES GROUP Project: GRANT HS

Date Received: 12/24/16. Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? Yes How many? _____ (No) (skip section 2) Sample Temp (°C): _____

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: (CANISTERS)

Section 2

Was the cooler packed with: ____ Ice ____ Ice Packs ____ Bubble Wrap ___ Styrofoam ____ Paper ____None ____ Other_____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Section 4

Explanations/Comments: _____

Section 5

For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time _____

Email (email sent to/on): _____ / _____

Project Manager's response: _____

Completed By: _____ Date: 12/24/16.

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Tuesday, January 10, 2017 10:06 AM
To: Ranjit Clarke
Subject: Vapor results

Hi Ranjit,
Can you revise the result for Grant so that the vapor results are in ug/m3? And the same for Francis Polytechnic when you report those? I need to compare to CHHSLs and they are in ug/m3.
Thank you,

Skye Green, **P.E.**
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: CES Group, Inc.
Address: 33353 Temecula Pkwy.
Suite 104 #333
Temecula, CA 92592
Attn: Skye Green

Lab Request: 385825
Report Date: 02/09/2017
Date Received: 12/24/2016
Client ID: 15581

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

Supplemental Report 4

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID	Sample #	Client Sample ID	Sample #	Client Sample ID
385825-001	S4-0.5'	385825-025	S12-0.5'	385825-049	S20-0.5'
385825-002	S4-1.5'	385825-026	S12-1.5'	385825-050	S20-1.5'
385825-003	S4-2.5'	385825-027	S12-2.5'	385825-051	S20-2.5'
385825-004	S5-0.5'	385825-028	S13-0.5'	385825-052	S21-0.5'
385825-005	S5-1.5'	385825-029	S13-1.5'	385825-053	S21-1.5'
385825-006	S5-2.5'	385825-030	S13-2.5'	385825-054	S21-2.5'
385825-007	S6-0.5'	385825-031	S14-0.5'	385825-055	S22-0.5'
385825-008	S6-1.5'	385825-032	S14-1.5'	385825-056	S22-1.5'
385825-009	S6-2.5'	385825-033	S14-2.5'	385825-057	S22-2.5'
385825-010	S7-0.5'	385825-034	S15-0.5'	385825-058	S23-0.5'
385825-011	S7-1.5'	385825-035	S15-1.5'	385825-059	S23-1.5'
385825-012	S7-2.5'	385825-036	S15-2.5'	385825-060	S23-2.5'
385825-013	S8-0.5'	385825-037	S16-0.5'	385825-061	S24-0.5'
385825-014	S8-1.5'	385825-038	S16-1.5'	385825-062	S24-1.5'
385825-015	S8-2.5'	385825-039	S16-2.5'	385825-063	S24-2.5'
385825-016	S9-0.5'	385825-040	S17-0.5'	385825-064	S25-0.5'
385825-017	S9-1.5'	385825-041	S17-1.5'	385825-065	S25-1.5'
385825-018	S9-2.5'	385825-042	S17-2.5'	385825-066	S25-2.5'
385825-019	S10-0.5'	385825-043	S18-0.5'	385825-067	S26-0.5'
385825-020	S10-1.5'	385825-044	S18-1.5'	385825-068	S26-1.5'
385825-021	S10-2.5'	385825-045	S18-2.5'	385825-069	S26-2.5'
385825-022	S11-0.5'	385825-046	S19-0.5'	385825-070	S27-0.5'
385825-023	S11-1.5'	385825-047	S19-1.5'	385825-071	S27-1.5'
385825-024	S11-2.5'	385825-048	S19-2.5'	385825-072	S27-2.5'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:55	**Site:**			
Sample #:	**385825-001**	**Client Sample #:**	S4-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.003 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.002 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	**0.024 J**	1	0.012	0.05	mg/Kg		12/25/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	**0.001 J**	1	0.00063	0.005	mg/Kg		12/25/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*64*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*95*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:00	**Site:**			
Sample #:	**385825-002**	**Client Sample #:**	S4-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:05	**Site:**			
Sample #:	**385825-003**	**Client Sample #:**	S4-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:00	**Site:**			
Sample #:	**385825-004**	**Client Sample #:**	S5-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**16.7**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**6.76**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*53*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*76*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:05	**Site:**			
Sample #:	**385825-005**	**Client Sample #:**	S5-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:10	**Site:**			
Sample #:	**385825-006**	**Client Sample #:**	S5-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:45	**Site:**			
Sample #:	**385825-007**	**Client Sample #:**	S6-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**44.6**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	**0.001 J**	1	0.00067	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.003 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	**0.001 J**	1	0.00044	0.005	mg/Kg		12/25/16	LW	J
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*70*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*77*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:50	**Site:**			
Sample #:	**385825-008**	**Client Sample #:**	S6-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:55	**Site:**			
Sample #:	**385825-009**	**Client Sample #:**	S6-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:40	**Site:**			
Sample #:	**385825-010**	**Client Sample #:**	S7-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**42.0**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**6.96**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	**0.003 J**	1	0.00067	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDE	**0.002 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.002 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	**0.027 J**	1	0.012	0.05	mg/Kg		12/25/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*68*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*79*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:55	**Site:**			
Sample #:	**385825-011**	**Client Sample #:**	S7-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:00	**Site:**			
Sample #:	**385825-012**	**Client Sample #:**	S7-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:20	**Site:**			
Sample #:	**385825-013**	**Client Sample #:**	S8-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID: QC1174191		
Lead	**0.681**	1	0.004	0.05	mg/L	01/10/17	01/10/17	KLN	
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**335**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174165		
Lead	**41.3**	10	0.12	0.15	mg/L	01/09/17	01/10/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.003 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.002 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	**0.026 J**	1	0.012	0.05	mg/Kg		12/25/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*50*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*60*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:25	**Site:**			
Sample #:	**385825-014**	**Client Sample #:**	S8-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174225		
Lead	**6.18**	1	0.32	0.5	mg/Kg	01/11/17	01/13/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:30	**Site:**			
Sample #:	**385825-015**	**Client Sample #:**	S8-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:00	**Site:**			
Sample #:	**385825-016**	**Client Sample #:**	S9-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID: QC1174191		
Lead	**0.032 J**	1	0.004	0.05	mg/L	01/10/17	01/10/17	KLN	J
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**106**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174165		
Lead	**6.06**	10	0.12	0.15	mg/L	01/09/17	01/10/17	KLN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**10.7**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.092**	10	0.0057	0.05	mg/Kg		12/26/16	LW	
4,4'-DDT	**0.012 J**	5	0.00475	0.025	mg/Kg		12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	**0.450**	5	0.06	0.25	mg/Kg		12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	**0.011 J**	5	0.00315	0.025	mg/Kg		12/26/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	**0.001 J**	1	0.00044	0.005	mg/Kg		12/25/16	LW	J
Heptachlor epoxide	**0.003 J**	1	0.00027	0.005	mg/Kg		12/25/16	LW	J
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*68*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*89*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:05	**Site:**			
Sample #:	**385825-017**	**Client Sample #:**	S9-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174225		
Lead	**65.5**	1	0.32	0.5	mg/Kg	01/11/17	01/13/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174723		
Lead	**2.88**	10	0.12	0.15	mg/L	01/25/17	01/26/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:10	**Site:**			
Sample #:	**385825-018**	**Client Sample #:**	S9-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID: QC1175179		
Lead	ND	1	0.004	0.05	mg/L	02/08/17	02/09/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174444		
Lead	**62.0**	1	0.32	0.5	mg/Kg	01/18/17	01/19/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174909		
Lead	**7.40**	10	0.12	0.15	mg/L	02/01/17	02/01/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:10	**Site:**			
Sample #:	**385825-019**	**Client Sample #:**	S10-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**49.8**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.029 J**	10	0.0057	0.05	mg/Kg		12/26/16	LW	J
4,4'-DDT	**0.004 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	**0.036 J**	1	0.012	0.05	mg/Kg		12/25/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	**0.003 J**	1	0.00063	0.005	mg/Kg		12/25/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*96*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*82*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:15	**Site:**			
Sample #:	**385825-020**	**Client Sample #:**	S10-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:20	**Site:**			
Sample #:	**385825-021**	**Client Sample #:**	S10-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:40	**Site:**			
Sample #:	**385825-022**	**Client Sample #:**	S11-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**14.2**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**3.39**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	**0.007 J**	2	0.00134	0.01	mg/Kg		12/25/16	LW	J
4,4'-DDE	**0.064 J**	20	0.0114	0.1	mg/Kg		12/26/16	LW	J
4,4'-DDT	ND	2	0.0019	0.01	mg/Kg		12/25/16	LW	
a-BHC	ND	2	0.0004	0.01	mg/Kg		12/25/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg		12/25/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	2	0.024	0.1	mg/Kg		12/25/16	LW	
d-BHC	ND	2	0.0009	0.01	mg/Kg		12/25/16	LW	
Dieldrin	ND	2	0.00126	0.01	mg/Kg		12/25/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg		12/25/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg		12/25/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg		12/25/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	2	0.00054	0.01	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg		12/25/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg		12/25/16	LW	
Toxaphene	ND	2	0.024	0.2	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*60*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*89*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:45	**Site:**			
Sample #:	**385825-023**	**Client Sample #:**	S11-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:50	**Site:**			
Sample #:	**385825-024**	**Client Sample #:**	S11-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 13:55	**Site:**			
Sample #:	**385825-025**	**Client Sample #:**	S12-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**1.72**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg		12/25/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg		12/25/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*48*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*50*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:00	**Site:**			
Sample #:	**385825-026**	**Client Sample #:**	S12-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:05	**Site:**			
Sample #:	**385825-027**	**Client Sample #:**	S12-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:40	**Site:**			
Sample #:	**385825-028**	**Client Sample #:**	S13-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**3.69**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**1.393 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/26/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg		12/26/16	LW	J
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg		12/26/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/26/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*36*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*71*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:45	**Site:**			
Sample #:	**385825-029**	**Client Sample #:**	S13-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:50	**Site:**			
Sample #:	**385825-030**	**Client Sample #:**	S13-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:25	**Site:**			
Sample #:	**385825-031**	**Client Sample #:**	S14-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**6.38**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	**0.003 J**	1	0.00057	0.005	mg/Kg		12/25/16	LW	J
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg		12/25/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	**0.002 J**	1	0.00063	0.005	mg/Kg		12/25/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*49*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*55*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:30	**Site:**			
Sample #:	**385825-032**	**Client Sample #:**	S14-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:35	**Site:**			
Sample #:	**385825-033**	**Client Sample #:**	S14-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:45	**Site:**			
Sample #:	**385825-034**	**Client Sample #:**	S15-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**1.38**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**3.14**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/25/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg		12/25/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg		12/25/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/25/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/25/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/25/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/25/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/25/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/25/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/25/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/25/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/25/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/25/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*44*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*57*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:50	**Site:**			
Sample #:	**385825-035**	**Client Sample #:**	S15-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:55	**Site:**			
Sample #:	**385825-036**	**Client Sample #:**	S15-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:20	**Site:**			
Sample #:	**385825-037**	**Client Sample #:**	S16-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**13.1**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	5	0.00335	0.025	mg/Kg		12/25/16	LW	
4,4'-DDE	ND	5	0.00285	0.025	mg/Kg		12/25/16	LW	
4,4'-DDT	ND	5	0.00475	0.025	mg/Kg		12/25/16	LW	
a-BHC	ND	5	0.001	0.025	mg/Kg		12/25/16	LW	
Aldrin	ND	5	0.0017	0.025	mg/Kg		12/25/16	LW	
b-BHC	ND	5	0.006	0.025	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	5	0.06	0.25	mg/Kg		12/25/16	LW	
d-BHC	ND	5	0.00225	0.025	mg/Kg		12/25/16	LW	
Dieldrin	ND	5	0.00315	0.025	mg/Kg		12/25/16	LW	
Endosulfan I	ND	5	0.0014	0.025	mg/Kg		12/25/16	LW	
Endosulfan II	ND	5	0.004	0.025	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	5	0.0085	0.025	mg/Kg		12/25/16	LW	
Endrin	ND	5	0.0031	0.025	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	5	0.0045	0.025	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	5	0.006	0.025	mg/Kg		12/25/16	LW	
Heptachlor	ND	5	0.0022	0.025	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	5	0.00135	0.025	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	5	0.0015	0.025	mg/Kg		12/25/16	LW	
Methoxychlor	ND	5	0.026	0.25	mg/Kg		12/25/16	LW	
Toxaphene	ND	5	0.06	0.5	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*42*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*76*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:25	**Site:**			
Sample #:	**385825-038**	**Client Sample #:**	S16-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:30	**Site:**			
Sample #:	**385825-039**	**Client Sample #:**	S16-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:30	**Site:**			
Sample #:	**385825-040**	**Client Sample #:**	S17-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**11.2**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**5.06**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	5	0.00335	0.025	mg/Kg		12/25/16	LW	
4,4'-DDE	ND	5	0.00285	0.025	mg/Kg		12/25/16	LW	
4,4'-DDT	ND	5	0.00475	0.025	mg/Kg		12/25/16	LW	
a-BHC	ND	5	0.001	0.025	mg/Kg		12/25/16	LW	
Aldrin	ND	5	0.0017	0.025	mg/Kg		12/25/16	LW	
b-BHC	ND	5	0.006	0.025	mg/Kg		12/25/16	LW	
Chlordane (technical)	ND	5	0.06	0.25	mg/Kg		12/25/16	LW	
d-BHC	ND	5	0.00225	0.025	mg/Kg		12/25/16	LW	
Dieldrin	ND	5	0.00315	0.025	mg/Kg		12/25/16	LW	
Endosulfan I	ND	5	0.0014	0.025	mg/Kg		12/25/16	LW	
Endosulfan II	ND	5	0.004	0.025	mg/Kg		12/25/16	LW	
Endosulfan sulfate	ND	5	0.0085	0.025	mg/Kg		12/25/16	LW	
Endrin	ND	5	0.0031	0.025	mg/Kg		12/25/16	LW	
Endrin aldehyde	ND	5	0.0045	0.025	mg/Kg		12/25/16	LW	
Endrin Ketone	ND	5	0.006	0.025	mg/Kg		12/25/16	LW	
Heptachlor	ND	5	0.0022	0.025	mg/Kg		12/25/16	LW	
Heptachlor epoxide	ND	5	0.00135	0.025	mg/Kg		12/25/16	LW	
Lindane (Gamma-BHC)	ND	5	0.0015	0.025	mg/Kg		12/25/16	LW	
Methoxychlor	ND	5	0.026	0.25	mg/Kg		12/25/16	LW	
Toxaphene	ND	5	0.06	0.5	mg/Kg		12/25/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*53*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*79*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:40	**Site:**			
Sample #:	**385825-041**	**Client Sample #:**	S17-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:45	**Site:**			
Sample #:	**385825-042**	**Client Sample #:**	S17-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:10	**Site:**			
Sample #:	**385825-043**	**Client Sample #:**	S18-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**32.1**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/26/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg		12/26/16	LW	J
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg		12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/26/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*42*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*80*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:15	**Site:**			
Sample #:	**385825-044**	**Client Sample #:**	S18-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:20	**Site:**			
Sample #:	**385825-045**	**Client Sample #:**	S18-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:00	**Site:**			
Sample #:	**385825-046**	**Client Sample #:**	S19-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**15.6**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**1.999 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/26/16	LW	
4,4'-DDE	**0.002 J**	1	0.00057	0.005	mg/Kg		12/26/16	LW	J
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg		12/26/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/26/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*65*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*132*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:20	**Site:**			
Sample #:	**385825-047**	**Client Sample #:**	S19-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:25	**Site:**			
Sample #:	**385825-048**	**Client Sample #:**	S19-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:30	**Site:**			
Sample #:	**385825-049**	**Client Sample #:**	S20-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**12.7**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg		12/26/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg		12/26/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg		12/26/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg		12/26/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg		12/26/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg		12/26/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg		12/26/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg		12/26/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg		12/26/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg		12/26/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg		12/26/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg		12/26/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg		12/26/16	LW	
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg		12/26/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg		12/26/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg		12/26/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg		12/26/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg		12/26/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg		12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*31*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*56*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:40	**Site:**			
Sample #:	**385825-050**	**Client Sample #:**	S20-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:45	**Site:**			
Sample #:	**385825-051**	**Client Sample #:**	S20-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 15:55	**Site:**			
Sample #:	**385825-052**	**Client Sample #:**	S21-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**27.5**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**2.37 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173682		
4,4'-DDD	ND	2	0.00134	0.01	mg/Kg		12/26/16	LW	
4,4'-DDE	**0.007 J**	2	0.00114	0.01	mg/Kg		12/26/16	LW	J
4,4'-DDT	**0.002 J**	2	0.0019	0.01	mg/Kg		12/26/16	LW	J
a-BHC	ND	2	0.0004	0.01	mg/Kg		12/26/16	LW	
Aldrin	ND	2	0.00068	0.01	mg/Kg		12/26/16	LW	
b-BHC	ND	2	0.0024	0.01	mg/Kg		12/26/16	LW	
Chlordane (technical)	ND	2	0.024	0.1	mg/Kg		12/26/16	LW	
d-BHC	ND	2	0.0009	0.01	mg/Kg		12/26/16	LW	
Dieldrin	ND	2	0.00126	0.01	mg/Kg		12/26/16	LW	
Endosulfan I	ND	2	0.00056	0.01	mg/Kg		12/26/16	LW	
Endosulfan II	ND	2	0.0016	0.01	mg/Kg		12/26/16	LW	
Endosulfan sulfate	ND	2	0.0034	0.01	mg/Kg		12/26/16	LW	
Endrin	ND	2	0.00124	0.01	mg/Kg		12/26/16	LW	
Endrin aldehyde	ND	2	0.0018	0.01	mg/Kg		12/26/16	LW	
Endrin Ketone	ND	2	0.0024	0.01	mg/Kg		12/26/16	LW	
Heptachlor	ND	2	0.00088	0.01	mg/Kg		12/26/16	LW	
Heptachlor epoxide	ND	2	0.00054	0.01	mg/Kg		12/26/16	LW	
Lindane (Gamma-BHC)	ND	2	0.0006	0.01	mg/Kg		12/26/16	LW	
Methoxychlor	ND	2	0.0104	0.1	mg/Kg		12/26/16	LW	
Toxaphene	ND	2	0.024	0.2	mg/Kg		12/26/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Decachlorobiphenyl DCB (SUR)	*18*	*50-150*	*S*	
Tetrachloro-m-xylene TCMX (SUR)	*37*	*50-150*	*S*	*Matrix interference.*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:00	**Site:**			
Sample #:	**385825-053**	**Client Sample #:**	S21-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 16:05	**Site:**			
Sample #:	**385825-054**	**Client Sample #:**	S21-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:40	**Site:**			
Sample #:	**385825-055**	**Client Sample #:**	S22-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**16.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	2.5	0.001675	0.0125	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	2.5	0.001425	0.0125	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	2.5	0.002375	0.0125	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	2.5	0.0005	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	2.5	0.00085	0.0125	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	2.5	0.003	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	2.5	0.03	0.125	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	2.5	0.001125	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	2.5	0.001575	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	2.5	0.0007	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	2.5	0.002	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	2.5	0.00425	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	2.5	0.00155	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	2.5	0.00225	0.0125	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	2.5	0.003	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	2.5	0.0011	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	2.5	0.000675	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	2.5	0.00075	0.0125	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	2.5	0.013	0.125	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	2.5	0.03	0.25	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*66*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*61*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:45	**Site:**			
Sample #:	**385825-056**	**Client Sample #:**	S22-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:50	**Site:**			
Sample #:	**385825-057**	**Client Sample #:**	S22-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:50	**Site:**			
Sample #:	**385825-058**	**Client Sample #:**	S23-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173758		
Lead	**6.71**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**1.852 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	**0.001 J**	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDE	**0.002 J**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	**0.003 J**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*63*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*77*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:55	**Site:**			
Sample #:	**385825-059**	**Client Sample #:**	S23-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:00	**Site:**			
Sample #:	**385825-060**	**Client Sample #:**	S23-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:05	**Site:**			
Sample #:	**385825-061**	**Client Sample #:**	S24-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**17.8**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	50	0.0335	0.25	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	50	0.0285	0.25	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	50	0.0475	0.25	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	50	0.01	0.25	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	50	0.017	0.25	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	50	0.06	0.25	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	50	0.6	2.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	50	0.0225	0.25	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	50	0.0315	0.25	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	50	0.014	0.25	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	50	0.04	0.25	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	50	0.085	0.25	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	50	0.031	0.25	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	50	0.045	0.25	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	50	0.06	0.25	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	50	0.022	0.25	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	50	0.0135	0.25	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	50	0.015	0.25	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	50	0.26	2.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	50	0.6	5	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*	
Decachlorobiphenyl DCB (SUR)	*224*	*50-150*	*S*	*Matrix interference.*
Tetrachloro-m-xylene TCMX (SUR)	*102*	*50-150*		

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:10	**Site:**			
Sample #:	**385825-062**	**Client Sample #:**	S24-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:18	**Site:**			
Sample #:	**385825-063**	**Client Sample #:**	S24-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:45	**Site:**			
Sample #:	**385825-064**	**Client Sample #:**	S25-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**27.1**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**1.868 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	**0.001 J**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	**0.002 J**	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*59*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*69*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:50	**Site:**			
Sample #:	**385825-065**	**Client Sample #:**	S25-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:55	**Site:**			
Sample #:	**385825-066**	**Client Sample #:**	S25-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:40	**Site:**			
Sample #:	**385825-067**	**Client Sample #:**	S26-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**5.48**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	**0.007 J**	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	J
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*102*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*82*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:45	**Site:**			
Sample #:	**385825-068**	**Client Sample #:**	S26-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:50	**Site:**			
Sample #:	**385825-069**	**Client Sample #:**	S26-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:50	**Site:**			
Sample #:	**385825-070**	**Client Sample #:**	S27-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**14.2**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**3.14**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*67*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*66*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:55	**Site:**			
Sample #:	**385825-071**	**Client Sample #:**	S27-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:00	**Site:**			
Sample #:	**385825-072**	**Client Sample #:**	S27-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:30	**Site:**			
Sample #:	**385825-073**	**Client Sample #:**	S28-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**10.6**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*76*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*66*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:35	**Site:**			
Sample #:	**385825-074**	**Client Sample #:**	S28-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:40	**Site:**			
Sample #:	**385825-075**	**Client Sample #:**	S28-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:05	**Site:**			
Sample #:	**385825-076**	**Client Sample #:**	S29-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**6.82**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**2.99 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*101*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*55*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:10	**Site:**			
Sample #:	**385825-077**	**Client Sample #:**	S29-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:15	**Site:**			
Sample #:	**385825-078**	**Client Sample #:**	S29-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:35	**Site:**			
Sample #:	**385825-079**	**Client Sample #:**	S30-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**12.5**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*70*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*47*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:40	**Site:**			
Sample #:	**385825-080**	**Client Sample #:**	S30-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:45	**Site:**			
Sample #:	**385825-081**	**Client Sample #:**	S30-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:50	**Site:**			
Sample #:	**385825-082**	**Client Sample #:**	S31-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**12.1**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**2.75 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.018 J**	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*109*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*47*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:55	**Site:**			
Sample #:	**385825-083**	**Client Sample #:**	S31-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:00	**Site:**			
Sample #:	**385825-084**	**Client Sample #:**	S31-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:20	**Site:**			
Sample #:	**385825-085**	**Client Sample #:**	S32-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**10.4**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	10	0.0067	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	10	0.0057	0.05	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	10	0.0095	0.05	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	10	0.002	0.05	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	10	0.0034	0.05	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	10	0.12	0.5	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	10	0.0045	0.05	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	10	0.0063	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	10	0.0028	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	10	0.008	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	10	0.017	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	10	0.0062	0.05	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	10	0.009	0.05	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	10	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	10	0.0044	0.05	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	10	0.0027	0.05	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	10	0.003	0.05	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	10	0.052	0.5	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	10	0.12	1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*158*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*70*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:25	**Site:**			
Sample #:	**385825-086**	**Client Sample #:**	S32-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:30	**Site:**			
Sample #:	**385825-087**	**Client Sample #:**	S32-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:25	**Site:**			
Sample #:	**385825-088**	**Client Sample #:**	S33-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**9.46**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**3.00**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	20	0.0134	0.1	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	20	0.0114	0.1	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	20	0.019	0.1	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	20	0.004	0.1	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	20	0.0068	0.1	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	20	0.024	0.1	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	20	0.24	1	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	20	0.009	0.1	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	20	0.0126	0.1	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	20	0.0056	0.1	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	20	0.016	0.1	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	20	0.034	0.1	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	20	0.0124	0.1	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	20	0.018	0.1	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	20	0.024	0.1	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	20	0.0088	0.1	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	20	0.0054	0.1	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	20	0.006	0.1	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	20	0.104	1	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	20	0.24	2	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*322*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*69*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:30	**Site:**			
Sample #:	**385825-089**	**Client Sample #:**	S33-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 10:35	**Site:**			
Sample #:	**385825-090**	**Client Sample #:**	S33-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:05	**Site:**			
Sample #:	**385825-091**	**Client Sample #:**	S52-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**5.22**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.004 J**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*73*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*89*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:08	**Site:**			
Sample #:	**385825-092**	**Client Sample #:**	S52-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:15	**Site:**			
Sample #:	**385825-093**	**Client Sample #:**	S52-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:10	**Site:**			
Sample #:	**385825-094**	**Client Sample #:**	S55-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**2.31**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**5.44**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*67*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*90*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:15	**Site:**			
Sample #:	**385825-095**	**Client Sample #:**	S55-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 11:20	**Site:**			
Sample #:	**385825-096**	**Client Sample #:**	S55-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:40	**Site:**			
Sample #:	**385825-097**	**Client Sample #:**	S65-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**3.34**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173862		
Arsenic	**2.69 J**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	J
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*39*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*49*	*50-150*	*S*

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:45	**Site:**			
Sample #:	**385825-098**	**Client Sample #:**	S65-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:49	**Site:**			
Sample #:	**385825-099**	**Client Sample #:**	S65-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:25	**Site:**			
Sample #:	**385825-100**	**Client Sample #:**	S66-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1173759		
Lead	**27.4**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1173693		
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.002 J**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	**0.003 J**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	**0.036 J**	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	**0.002 J**	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*73*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*94*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:30	**Site:**			
Sample #:	**385825-101**	**Client Sample #:**	S66-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 08:34	**Site:**			
Sample #:	**385825-102**	**Client Sample #:**	S66-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 07:45	**Site:**			
Sample #:	**385825-103**	**Client Sample #:**	S7D-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173759	
Lead	**38.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173862	
Arsenic	**5.79**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173693	
4,4'-DDD	**0.006**	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.005**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	**0.003 J**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	**0.039 J**	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	J
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	**0.002 J**	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	J
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	**0.001 J**	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	J
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*69*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*99*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:35	**Site:**			
Sample #:	**385825-104**	**Client Sample #:**	S17D-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173759	
Lead	**10.9**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 6020 *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173862	
Arsenic	**7.04**	10	0.2	3	mg/Kg	01/02/16	01/04/17	MH	
Method: EPA 8081A *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173693	
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	ND	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	ND	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*40*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*71*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 09:35	**Site:**			
Sample #:	**385825-105**	**Client Sample #:**	S20D-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1173759	
Lead	**9.46**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID:	QC1173693	
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.007**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDT	**0.005**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*47*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*90*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:30	**Site:**			
Sample #:	**385825-106**	**Client Sample #:**	Soil Drums	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173759	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**6.02**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**116**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**15.5**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**9.60**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**17.7**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**9.47**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**8.27**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**38.0**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**47.1**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015B *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173872	
TPH Diesel	ND	1	0.4	1	mg/Kg	12/30/16	12/30/16	LT	
TPH Motor Oil	ND	1	2.1	5	mg/Kg	12/30/16	12/30/16	LT	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*93*	*50-150*	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015B *NELAC* Prep Method: EPA 5030							QCBatchID:	QC1173807	
TPH Gasoline	ND	1	0.159	3	mg/Kg		12/29/16	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*91*	*60-140*	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8081A *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173693	
4,4'-DDD	ND	1	0.00067	0.005	mg/Kg	12/27/16	12/28/16	LW	
4,4'-DDE	**0.001 J**	1	0.00057	0.005	mg/Kg	12/27/16	12/28/16	LW	J
4,4'-DDT	**0.002 J**	1	0.00095	0.005	mg/Kg	12/27/16	12/28/16	LW	J
a-BHC	ND	1	0.0002	0.005	mg/Kg	12/27/16	12/28/16	LW	
Aldrin	ND	1	0.00034	0.005	mg/Kg	12/27/16	12/28/16	LW	
b-BHC	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Chlordane (technical)	ND	1	0.012	0.05	mg/Kg	12/27/16	12/28/16	LW	
d-BHC	ND	1	0.00045	0.005	mg/Kg	12/27/16	12/28/16	LW	
Dieldrin	ND	1	0.00063	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan I	ND	1	0.00028	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan II	ND	1	0.0008	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endosulfan sulfate	ND	1	0.0017	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin	ND	1	0.00062	0.005	mg/Kg	12/27/16	12/28/16	LW	
Endrin aldehyde	ND	1	0.0009	0.005	mg/Kg	12/27/16	12/28/16	LW	L
Endrin Ketone	ND	1	0.0012	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor	ND	1	0.00044	0.005	mg/Kg	12/27/16	12/28/16	LW	
Heptachlor epoxide	ND	1	0.00027	0.005	mg/Kg	12/27/16	12/28/16	LW	
Lindane (Gamma-BHC)	ND	1	0.0003	0.005	mg/Kg	12/27/16	12/28/16	LW	
Methoxychlor	ND	1	0.0052	0.05	mg/Kg	12/27/16	12/28/16	LW	
Toxaphene	ND	1	0.012	0.1	mg/Kg	12/27/16	12/28/16	LW	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:30	**Site:**			
Sample #:	**385825-106**	**Client Sample #:**	Soil Drums	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Surrogate	*% Recovery*			*Limits*	*Notes*				
Decachlorobiphenyl DCB (SUR)	*44*			*50-150*	*S*				
Tetrachloro-m-xylene TCMX (SUR)	*83*			*50-150*					
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:		QC1173791
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	
Surrogate	*% Recovery*			*Limits*	*Notes*				
Decachlorobiphenyl DCB (SUR)	*73*			*50-150*					
Method: EPA 8260B *NELAC* Prep Method: EPA 5030							QCBatchID:		QC1173683
1,1,1,2-Tetrachloroethane	ND	1	0.24	5	ug/Kg		12/26/16	ZZ	
1,1,1-Trichloroethane	ND	1	0.15	5	ug/Kg		12/26/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	0.29	5	ug/Kg		12/26/16	ZZ	
1,1,2-Trichloroethane	ND	1	0.22	5	ug/Kg		12/26/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	0.74	5	ug/Kg		12/26/16	ZZ	
1,1-Dichloroethane	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
1,1-Dichloroethene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
1,1-Dichloropropene	ND	1	0.21	5	ug/Kg		12/26/16	ZZ	
1,2,3-Trichlorobenzene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
1,2,3-Trichloropropane	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
1,2,4-Trichlorobenzene	ND	1	0.33	5	ug/Kg		12/26/16	ZZ	
1,2,4-Trimethylbenzene	ND	1	0.28	5	ug/Kg		12/26/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
1,2-Dibromoethane	ND	1	0.12	5	ug/Kg		12/26/16	ZZ	
1,2-Dichlorobenzene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
1,2-Dichloroethane	ND	1	0.14	5	ug/Kg		12/26/16	ZZ	
1,2-Dichloropropane	ND	1	0.34	5	ug/Kg		12/26/16	ZZ	
1,3,5-Trimethylbenzene	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
1,3-Dichlorobenzene	ND	1	0.21	5	ug/Kg		12/26/16	ZZ	
1,3-Dichloropropane	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
1,4-Dichlorobenzene	ND	1	0.24	5	ug/Kg		12/26/16	ZZ	
2,2-Dichloropropane	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
2-Butanone (MEK)	ND	1	0.72	100	ug/Kg		12/26/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	1	0.3	5	ug/Kg		12/26/16	ZZ	
2-Chlorotoluene	ND	1	0.25	5	ug/Kg		12/26/16	ZZ	
4-Chlorotoluene	ND	1	0.22	5	ug/Kg		12/26/16	ZZ	
4-Isopropyltoluene	**0.65 J**	1	0.27	5	ug/Kg		12/26/16	ZZ	J
4-Methyl-2-pentanone (MIBK)	ND	1	0.17	5	ug/Kg		12/26/16	ZZ	
Acetone	ND	1	10	100	ug/Kg		12/26/16	ZZ	
Allyl Chloride	ND	1	0.14	5	ug/Kg		12/26/16	ZZ	
Benzene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Bromobenzene	ND	1	0.3	5	ug/Kg		12/26/16	ZZ	
Bromochloromethane	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Bromodichloromethane	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
Bromoform	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
Bromomethane	ND	1	0.22	5	ug/Kg		12/26/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:30	**Site:**			
Sample #:	**385825-106**	**Client Sample #:**	Soil Drums	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Carbon Tetrachloride	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Chlorobenzene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Chlorodibromomethane	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
Chloroethane	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
Chloroform	ND	1	0.17	5	ug/Kg		12/26/16	ZZ	
Chloromethane	ND	1	0.21	5	ug/Kg		12/26/16	ZZ	
cis-1,2-Dichloroethene	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
cis-1,3-dichloropropene	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
cis-1,4-dichloro-2-butene	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
Dibromomethane	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
Dichlorodifluoromethane	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
Di-isopropyl ether (DIPE)	ND	1	0.21	5	ug/Kg		12/26/16	ZZ	
Ethylbenzene	ND	1	0.25	5	ug/Kg		12/26/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	1	0.42	5	ug/Kg		12/26/16	ZZ	
Hexachlorobutadiene	ND	1	0.38	5	ug/Kg		12/26/16	ZZ	
Isopropylbenzene	**0.37 J**	1	0.17	5	ug/Kg		12/26/16	ZZ	J
m and p-Xylene	**1.1 J**	1	0.21	5	ug/Kg		12/26/16	ZZ	J
Methylene chloride	ND	1	0.22	5	ug/Kg		12/26/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	0.25	5	ug/Kg		12/26/16	ZZ	
Naphthalene	ND	1	0.28	5	ug/Kg		12/26/16	ZZ	
N-butylbenzene	ND	1	0.16	5	ug/Kg		12/26/16	ZZ	
N-propylbenzene	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
o-Xylene	**0.62 J**	1	0.13	5	ug/Kg		12/26/16	ZZ	J
Sec-butylbenzene	ND	1	0.34	5	ug/Kg		12/26/16	ZZ	
Styrene	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
t-Butyl alcohol (TBA)	ND	1	8.8	10	ug/Kg		12/26/16	ZZ	
Tert-amylmethylether (TAME)	ND	1	0.19	5	ug/Kg		12/26/16	ZZ	
Tert-butylbenzene	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Tetrachloroethene	ND	1	0.2	5	ug/Kg		12/26/16	ZZ	
Toluene	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
trans-1,2-dichloroethene	ND	1	0.23	5	ug/Kg		12/26/16	ZZ	
trans-1,3-dichloropropene	ND	1	0.14	5	ug/Kg		12/26/16	ZZ	
trans-1,4-dichloro-2-butene	ND	1	0.38	5	ug/Kg		12/26/16	ZZ	
Trichloroethene	ND	1	0.39	5	ug/Kg		12/26/16	ZZ	
Trichlorofluoromethane	ND	1	0.25	5	ug/Kg		12/26/16	ZZ	
Vinyl Chloride	ND	1	0.18	5	ug/Kg		12/26/16	ZZ	
Xylenes (Total)	**1.7 J**	1	0.45	5	ug/Kg		12/26/16	ZZ	J

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*138*	*70-145*	
4-Bromofluorobenzene (SUR)	*126*	*70-145*	
Dibromodifluoromethane (SUR)	*100*	*70-145*	
Toluene-d8 (SUR)	*105*	*70-145*	

Matrix:	Water	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:20	**Site:**			
Sample #:	**385825-107**	**Client Sample #:**	Drum Water	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015B *NELAC* Prep Method: EPA 5030B							QCBatchID: QC1173808		
TPH Gasoline	ND	1	6.6	50	ug/L		12/29/16	EW	

Surrogate	*% Recovery*	*Limits*	*Notes*
4-Bromofluorobenzene (SUR)	*99*	*60-140*	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8081A *NELAC* Prep Method: EPA 3510C							QCBatchID: QC1173822		
4,4'-DDD	ND	1.05	0.01575	0.063	ug/L		12/30/16	LW	
4,4'-DDE	ND	1.05	0.01365	0.0525	ug/L		12/30/16	LW	
4,4'-DDT	ND	1.05	0.01785	0.063	ug/L		12/30/16	LW	
a-BHC	ND	1.05	0.00525	0.042	ug/L		12/30/16	LW	
Aldrin	ND	1.05	0.0084	0.1155	ug/L		12/30/16	LW	
b-BHC	ND	1.05	0.00525	0.0315	ug/L		12/30/16	LW	
Chlordane (technical)	ND	1.05	0.105	0.2625	ug/L		12/30/16	LW	
d-BHC	ND	1.05	0.0063	0.0315	ug/L		12/30/16	LW	
Dieldrin	ND	1.05	0.0126	0.063	ug/L		12/30/16	LW	
Endosulfan I	ND	1.05	0.0063	0.0315	ug/L		12/30/16	LW	
Endosulfan II	ND	1.05	0.01155	0.063	ug/L		12/30/16	LW	
Endosulfan sulfate	ND	1.05	0.0126	0.063	ug/L		12/30/16	LW	
Endrin	ND	1.05	0.01575	0.063	ug/L		12/30/16	LW	
Endrin aldehyde	ND	1.05	0.0126	0.1365	ug/L		12/30/16	LW	
Endrin Ketone	ND	1.05	0.0126	0.06405	ug/L		12/30/16	LW	
Heptachlor	ND	1.05	0.0084	0.084	ug/L		12/30/16	LW	
Heptachlor epoxide	ND	1.05	0.0105	0.0525	ug/L		12/30/16	LW	
Lindane (Gamma-BHC)	ND	1.05	0.00042	0.0315	ug/L		12/30/16	LW	
Methoxychlor	ND	1.05	0.08715	0.5985	ug/L		12/30/16	LW	
Toxaphene	ND	1.05	3.255	3.255	ug/L		12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*31*	*50-150*	*S*
Tetrachloro-m-xylene TCMX (SUR)	*74*	*50-150*	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8082 *NELAC* Prep Method: EPA 3510C							QCBatchID: QC1173984		
PCB-1016	ND	1.05	0.1365	0.525	ug/L		12/30/16	LW	
PCB-1221	ND	1.05	0.252	0.525	ug/L		12/30/16	LW	
PCB-1232	ND	1.05	0.126	0.525	ug/L		12/30/16	LW	
PCB-1242	ND	1.05	0.07455	0.525	ug/L		12/30/16	LW	
PCB-1248	ND	1.05	0.126	0.525	ug/L		12/30/16	LW	
PCB-1254	ND	1.05	0.0882	0.525	ug/L		12/30/16	LW	
PCB-1260	ND	1.05	0.0861	0.525	ug/L		12/30/16	LW	
PCB-1262	ND	1.05	0.08715	0.525	ug/L		12/30/16	LW	
PCB-1268	ND	1.05	0.04095	0.525	ug/L		12/30/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*33*	*50-150*	*S*

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B *NELAC* Prep Method: EPA 5030B							QCBatchID: QC1173835		
1,1,1,2-Tetrachloroethane	ND	1	0.25	5	ug/L		12/31/16	LZ	
1,1,1-Trichloroethane	ND	1	0.38	5	ug/L		12/31/16	LZ	
1,1,2,2-Tetrachloroethane	ND	1	0.25	5	ug/L		12/31/16	LZ	
1,1,2-Trichloroethane	ND	1	0.25	5	ug/L		12/31/16	LZ	
1,1,2-Trichlorotrifluoroethane	ND	1	0.29	5	ug/L		12/31/16	LZ	
1,1-Dichloroethane	ND	1	0.32	5	ug/L		12/31/16	LZ	
1,1-Dichloroethene	ND	1	0.3	5	ug/L		12/31/16	LZ	
1,1-Dichloropropene	ND	1	0.25	5	ug/L		12/31/16	LZ	
1,2,3-Trichlorobenzene	ND	1	0.28	5	ug/L		12/31/16	LZ	
1,2,3-Trichloropropane	ND	1	0.16	5	ug/L		12/31/16	LZ	
1,2,4-Trichlorobenzene	ND	1	0.27	5	ug/L		12/31/16	LZ	

Matrix:	Water	Client:	CES Group, Inc.	Collector:	Client
Sampled:	12/23/2016 14:20	Site:			
Sample #:	385825-107	Client Sample #:	Drum Water	Sample Type:	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
1,2,4-Trimethylbenzene	ND	1	0.28	5	ug/L		12/31/16	LZ	
1,2-Dibromo-3-chloropropane	ND	1	0.12	5	ug/L		12/31/16	LZ	
1,2-Dibromoethane	ND	1	0.19	5	ug/L		12/31/16	LZ	
1,2-Dichlorobenzene	ND	1	0.26	5	ug/L		12/31/16	LZ	
1,2-Dichloroethane	ND	1	0.2	5	ug/L		12/31/16	LZ	
1,2-Dichloropropane	ND	1	0.36	5	ug/L		12/31/16	LZ	
1,3,5-Trimethylbenzene	ND	1	0.24	5	ug/L		12/31/16	LZ	
1,3-Dichlorobenzene	ND	1	0.34	5	ug/L		12/31/16	LZ	
1,3-Dichloropropane	ND	1	0.19	5	ug/L		12/31/16	LZ	
1,4-Dichlorobenzene	ND	1	0.43	5	ug/L		12/31/16	LZ	
2,2-Dichloropropane	ND	1	0.32	5	ug/L		12/31/16	LZ	
2-Butanone (MEK)	ND	1	0.78	100	ug/L		12/31/16	LZ	
2-Chlorotoluene	ND	1	0.33	5	ug/L		12/31/16	LZ	
4-Chlorotoluene	ND	1	0.31	5	ug/L		12/31/16	LZ	
4-Isopropyltoluene	ND	1	0.32	5	ug/L		12/31/16	LZ	
4-Methyl-2-pentanone (MIBK)	ND	1	0.12	5	ug/L		12/31/16	LZ	
Acetone	ND	1	10	100	ug/L		12/31/16	LZ	
Allyl Chloride	ND	1	0.19	5	ug/L		12/31/16	LZ	
Benzene	ND	1	0.18	1	ug/L		12/31/16	LZ	
Bromobenzene	ND	1	0.53	5	ug/L		12/31/16	LZ	
Bromochloromethane	ND	1	0.17	5	ug/L		12/31/16	LZ	
Bromodichloromethane	**0.9 J**	1	0.31	5	ug/L		12/31/16	LZ	J
Bromoform	**5.0**	1	0.13	5	ug/L		12/31/16	LZ	
Bromomethane	ND	1	0.68	5	ug/L		12/31/16	LZ	
Carbon Tetrachloride	ND	1	0.27	5	ug/L		12/31/16	LZ	
Chlorobenzene	ND	1	0.19	5	ug/L		12/31/16	LZ	
Chlorodibromomethane	**3.1 J**	1	0.21	5	ug/L		12/31/16	LZ	J
Chloroethane	ND	1	0.45	5	ug/L		12/31/16	LZ	
Chloroform	**0.34 J**	1	0.18	5	ug/L		12/31/16	LZ	J
Chloromethane	ND	1	0.27	5	ug/L		12/31/16	LZ	
cis-1,2-Dichloroethene	ND	1	0.27	5	ug/L		12/31/16	LZ	
cis-1,3-dichloropropene	ND	1	0.25	5	ug/L		12/31/16	LZ	
cis-1,4-dichloro-2-butene	ND	1	0.17	5	ug/L		12/31/16	LZ	
Dibromomethane	ND	1	0.23	5	ug/L		12/31/16	LZ	
Dichlorodifluoromethane	ND	1	0.33	5	ug/L		12/31/16	LZ	
Di-isopropyl ether (DIPE)	ND	1	0.17	1	ug/L		12/31/16	LZ	
Ethylbenzene	ND	1	0.21	5	ug/L		12/31/16	LZ	
Ethyl-tertbutylether (ETBE)	ND	1	0.23	1	ug/L		12/31/16	LZ	
Hexachlorobutadiene	ND	1	0.51	5	ug/L		12/31/16	LZ	
Isopropylbenzene	ND	1	0.24	5	ug/L		12/31/16	LZ	
m and p-Xylene	ND	1	0.45	5	ug/L		12/31/16	LZ	
Methylene chloride	**0.34 J**	1	0.16	5	ug/L		12/31/16	LZ	J
Methyl-t-butyl Ether (MTBE)	ND	1	0.19	1	ug/L		12/31/16	LZ	
Naphthalene	ND	1	0.25	5	ug/L		12/31/16	LZ	
N-butylbenzene	ND	1	0.25	5	ug/L		12/31/16	LZ	
N-propylbenzene	ND	1	0.31	5	ug/L		12/31/16	LZ	
o-Xylene	ND	1	0.29	5	ug/L		12/31/16	LZ	
Sec-butylbenzene	ND	1	0.32	5	ug/L		12/31/16	LZ	
Styrene	ND	1	0.22	5	ug/L		12/31/16	LZ	
t-Butyl alcohol (TBA)	ND	1	5.2	10	ug/L		12/31/16	LZ	
Tert-amylmethylether (TAME)	ND	1	0.19	5	ug/L		12/31/16	LZ	
Tert-butylbenzene	ND	1	0.4	5	ug/L		12/31/16	LZ	
Tetrachloroethene	ND	1	0.8	5	ug/L		12/31/16	LZ	

Matrix:	Water	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/23/2016 14:20	**Site:**			
Sample #:	**385825-107**	**Client Sample #:**	Drum Water	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Toluene	**0.25 J**	1	0.24	5	ug/L		12/31/16	LZ	J
trans-1,2-dichloroethene	ND	1	0.33	5	ug/L		12/31/16	LZ	
trans-1,3-dichloropropene	ND	1	0.23	5	ug/L		12/31/16	LZ	
trans-1,4-dichloro-2-butene	ND	1	0.17	5	ug/L		12/31/16	LZ	
Trichloroethene	ND	1	0.39	5	ug/L		12/31/16	LZ	
Trichlorofluoromethane	ND	1	0.25	5	ug/L		12/31/16	LZ	
Vinyl Chloride	ND	1	0.18	5	ug/L		12/31/16	LZ	
Xylenes (Total)	ND	1	0.45	5	ug/L		12/31/16	LZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*92*	*70-145*	
4-Bromofluorobenzene (SUR)	*114*	*70-145*	
Dibromodifluoromethane (SUR)	*101*	*70-145*	
Toluene-d8 (SUR)	*96*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:25	**Site:**			
Sample #:	**385825-108**	**Client Sample #:**	S1/SG1-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**15**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173683	
1,1,1,2-Tetrachloroethane	ND	0.96	0.2304	4.8	ug/Kg		12/26/16	ZZ	
1,1,1-Trichloroethane	ND	0.96	0.144	4.8	ug/Kg		12/26/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.96	0.2784	4.8	ug/Kg		12/26/16	ZZ	
1,1,2-Trichloroethane	ND	0.96	0.2112	4.8	ug/Kg		12/26/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.96	0.7104	4.8	ug/Kg		12/26/16	ZZ	
1,1-Dichloroethane	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
1,1-Dichloroethene	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
1,1-Dichloropropene	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
1,2,3-Trichloropropane	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.96	0.3168	4.8	ug/Kg		12/26/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/26/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
1,2-Dibromoethane	ND	0.96	0.1152	4.8	ug/Kg		12/26/16	ZZ	
1,2-Dichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
1,2-Dichloroethane	ND	0.96	0.1344	4.8	ug/Kg		12/26/16	ZZ	
1,2-Dichloropropane	ND	0.96	0.3264	4.8	ug/Kg		12/26/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
1,3-Dichlorobenzene	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	
1,3-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
1,4-Dichlorobenzene	ND	0.96	0.2304	4.8	ug/Kg		12/26/16	ZZ	
2,2-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
2-Butanone (MEK)	**1.1 J**	0.96	0.6912	96	ug/Kg		12/26/16	ZZ	J
2-Chloroethyl Vinyl Ether	ND	0.96	0.288	4.8	ug/Kg		12/26/16	ZZ	
2-Chlorotoluene	ND	0.96	0.24	4.8	ug/Kg		12/26/16	ZZ	
4-Chlorotoluene	ND	0.96	0.2112	4.8	ug/Kg		12/26/16	ZZ	
4-Isopropyltoluene	ND	0.96	0.2592	4.8	ug/Kg		12/26/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.96	0.1632	4.8	ug/Kg		12/26/16	ZZ	
Acetone	**13 J**	0.96	9.6	96	ug/Kg		12/26/16	ZZ	J
Allyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/26/16	ZZ	
Benzene	**1.7 J**	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	J
Bromobenzene	ND	0.96	0.288	4.8	ug/Kg		12/26/16	ZZ	
Bromochloromethane	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
Bromodichloromethane	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
Bromoform	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
Bromomethane	ND	0.96	0.2112	4.8	ug/Kg		12/26/16	ZZ	
Carbon Tetrachloride	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
Chlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
Chlorodibromomethane	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
Chloroethane	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
Chloroform	ND	0.96	0.1632	4.8	ug/Kg		12/26/16	ZZ	
Chloromethane	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	
cis-1,2-Dichloroethene	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
cis-1,3-dichloropropene	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
Dibromomethane	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	
Dichlorodifluoromethane	**2.7 J**	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	J
Di-isopropyl ether (DIPE)	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:25	**Site:**			
Sample #:	**385825-108**	**Client Sample #:**	S1/SG1-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Ethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.96	0.4032	4.8	ug/Kg		12/26/16	ZZ	
Hexachlorobutadiene	ND	0.96	0.4032	4.8	ug/Kg		12/26/16	ZZ	
Isopropylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/26/16	ZZ	
m and p-Xylene	ND	0.96	0.3648	4.8	ug/Kg		12/26/16	ZZ	
Methylene chloride	ND	0.96	0.2016	4.8	ug/Kg		12/26/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.96	0.1632	4.8	ug/Kg		12/26/16	ZZ	
Naphthalene	ND	0.96	0.1536	4.8	ug/Kg		12/26/16	ZZ	
N-butylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/26/16	ZZ	
N-propylbenzene	ND	0.96	0.2112	4.8	ug/Kg		12/26/16	ZZ	
o-Xylene	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
Sec-butylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/26/16	ZZ	
Styrene	ND	0.96	0.1248	4.8	ug/Kg		12/26/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.96	8.448	9.6	ug/Kg		12/26/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
Tert-butylbenzene	ND	0.96	0.3264	4.8	ug/Kg		12/26/16	ZZ	
Tetrachloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
Toluene	**0.43 J**	0.96	0.1632	4.8	ug/Kg		12/26/16	ZZ	J
trans-1,2-dichloroethene	ND	0.96	0.1824	4.8	ug/Kg		12/26/16	ZZ	
trans-1,3-dichloropropene	ND	0.96	0.1728	4.8	ug/Kg		12/26/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/26/16	ZZ	
Trichloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
Trichlorofluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/26/16	ZZ	
Vinyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/26/16	ZZ	
Xylenes (Total)	ND	0.96	0.3648	4.8	ug/Kg		12/26/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*142*	*70-145*	
4-Bromofluorobenzene (SUR)	*110*	*70-145*	
Dibromodifluoromethane (SUR)	*108*	*70-145*	
Toluene-d8 (SUR)	*103*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:30	**Site:**			
Sample #:	**385825-109**	**Client Sample #:**	S1/SG1-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**14**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173683	
1,1,1,2-Tetrachloroethane	ND	0.89	0.2136	4.45	ug/Kg		12/27/16	ZZ	
1,1,1-Trichloroethane	ND	0.89	0.1335	4.45	ug/Kg		12/27/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.89	0.2581	4.45	ug/Kg		12/27/16	ZZ	
1,1,2-Trichloroethane	ND	0.89	0.1958	4.45	ug/Kg		12/27/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.89	0.6586	4.45	ug/Kg		12/27/16	ZZ	
1,1-Dichloroethane	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
1,1-Dichloroethene	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
1,1-Dichloropropene	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
1,2,3-Trichloropropane	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.89	0.2937	4.45	ug/Kg		12/27/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.89	0.2492	4.45	ug/Kg		12/27/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
1,2-Dibromoethane	ND	0.89	0.1068	4.45	ug/Kg		12/27/16	ZZ	
1,2-Dichlorobenzene	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
1,2-Dichloroethane	ND	0.89	0.1246	4.45	ug/Kg		12/27/16	ZZ	
1,2-Dichloropropane	ND	0.89	0.3026	4.45	ug/Kg		12/27/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
1,3-Dichlorobenzene	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	
1,3-Dichloropropane	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
1,4-Dichlorobenzene	ND	0.89	0.2136	4.45	ug/Kg		12/27/16	ZZ	
2,2-Dichloropropane	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
2-Butanone (MEK)	ND	0.89	0.6408	89	ug/Kg		12/27/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	0.89	0.267	4.45	ug/Kg		12/27/16	ZZ	
2-Chlorotoluene	ND	0.89	0.2225	4.45	ug/Kg		12/27/16	ZZ	
4-Chlorotoluene	ND	0.89	0.1958	4.45	ug/Kg		12/27/16	ZZ	
4-Isopropyltoluene	ND	0.89	0.2403	4.45	ug/Kg		12/27/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.89	0.1513	4.45	ug/Kg		12/27/16	ZZ	
Acetone	ND	0.89	8.9	89	ug/Kg		12/27/16	ZZ	
Allyl Chloride	ND	0.89	0.1246	4.45	ug/Kg		12/27/16	ZZ	
Benzene	**0.76 J**	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	J
Bromobenzene	ND	0.89	0.267	4.45	ug/Kg		12/27/16	ZZ	
Bromochloromethane	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
Bromodichloromethane	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
Bromoform	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
Bromomethane	**1.4 J**	0.89	0.1958	4.45	ug/Kg		12/27/16	ZZ	J
Carbon Tetrachloride	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
Chlorobenzene	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
Chlorodibromomethane	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
Chloroethane	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
Chloroform	ND	0.89	0.1513	4.45	ug/Kg		12/27/16	ZZ	
Chloromethane	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	
cis-1,2-Dichloroethene	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
cis-1,3-dichloropropene	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
Dibromomethane	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	
Dichlorodifluoromethane	**13**	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
Di-isopropyl ether (DIPE)	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:30	**Site:**			
Sample #:	**385825-109**	**Client Sample #:**	S1/SG1-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Ethylbenzene	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.89	0.3738	4.45	ug/Kg		12/27/16	ZZ	
Hexachlorobutadiene	ND	0.89	0.3738	4.45	ug/Kg		12/27/16	ZZ	
Isopropylbenzene	ND	0.89	0.2225	4.45	ug/Kg		12/27/16	ZZ	
m and p-Xylene	ND	0.89	0.3382	4.45	ug/Kg		12/27/16	ZZ	
Methylene chloride	ND	0.89	0.1869	4.45	ug/Kg		12/27/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.89	0.1513	4.45	ug/Kg		12/27/16	ZZ	
Naphthalene	ND	0.89	0.1424	4.45	ug/Kg		12/27/16	ZZ	
N-butylbenzene	ND	0.89	0.2225	4.45	ug/Kg		12/27/16	ZZ	
N-propylbenzene	ND	0.89	0.1958	4.45	ug/Kg		12/27/16	ZZ	
o-Xylene	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
Sec-butylbenzene	ND	0.89	0.2492	4.45	ug/Kg		12/27/16	ZZ	
Styrene	ND	0.89	0.1157	4.45	ug/Kg		12/27/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.89	7.832	8.9	ug/Kg		12/27/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
Tert-butylbenzene	ND	0.89	0.3026	4.45	ug/Kg		12/27/16	ZZ	
Tetrachloroethene	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
Toluene	**0.40 J**	0.89	0.1513	4.45	ug/Kg		12/27/16	ZZ	J
trans-1,2-dichloroethene	ND	0.89	0.1691	4.45	ug/Kg		12/27/16	ZZ	
trans-1,3-dichloropropene	ND	0.89	0.1602	4.45	ug/Kg		12/27/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.89	0.178	4.45	ug/Kg		12/27/16	ZZ	
Trichloroethene	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
Trichlorofluoromethane	ND	0.89	0.2047	4.45	ug/Kg		12/27/16	ZZ	
Vinyl Chloride	ND	0.89	0.1246	4.45	ug/Kg		12/27/16	ZZ	
Xylenes (Total)	ND	0.89	0.3382	4.45	ug/Kg		12/27/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*142*	*70-145*	
4-Bromofluorobenzene (SUR)	*116*	*70-145*	
Dibromodifluoromethane (SUR)	*113*	*70-145*	
Toluene-d8 (SUR)	*102*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:35	**Site:**			
Sample #:	**385825-110**	**Client Sample #:**	S1/SG1-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**21**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	0.96	0.144	4.8	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.96	0.2784	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.96	0.7104	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.96	0.3168	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	0.96	0.1152	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloropropane	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	ND	0.96	0.6912	96	ug/Kg		12/29/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	0.96	0.2592	4.8	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Acetone	ND	0.96	9.6	96	ug/Kg		12/29/16	ZZ	
Allyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Benzene	**0.36 J**	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Bromodichloromethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Bromoform	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Chloroform	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Di-isopropyl ether (DIPE)	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 12:35	**Site:**			
Sample #:	**385825-110**	**Client Sample #:**	S1/SG1-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Ethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	0.96	0.1536	4.8	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
Styrene	ND	0.96	0.1248	4.8	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.96	8.448	9.6	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Toluene	**0.26 J**	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Trichloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*135*	*70-145*	
4-Bromofluorobenzene (SUR)	*113*	*70-145*	
Dibromodifluoromethane (SUR)	*112*	*70-145*	
Toluene-d8 (SUR)	*101*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 13:35	**Site:**			
Sample #:	**385825-111**	**Client Sample #:**	S2/SG2-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173759	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.10**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**97.0**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**8.85**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**6.71**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**8.53**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**4.82**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**21.2**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**24.3**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	0.96	0.144	4.8	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.96	0.2784	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.96	0.7104	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.96	0.3168	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	0.96	0.1152	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloropropane	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	ND	0.96	0.6912	96	ug/Kg		12/29/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	0.96	0.2592	4.8	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Acetone	ND	0.96	9.6	96	ug/Kg		12/29/16	ZZ	
Allyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Benzene	**0.46 J**	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 13:35	**Site:**			
Sample #:	**385825-111**	**Client Sample #:**	S2/SG2-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Bromodichloromethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Bromoform	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Chloroform	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Di-isopropyl ether (DIPE)	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Ethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	0.96	0.1536	4.8	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
Styrene	ND	0.96	0.1248	4.8	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.96	8.448	9.6	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Toluene	**0.32 J**	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Trichloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*133*	*70-145*	
4-Bromofluorobenzene (SUR)	*112*	*70-145*	
Dibromodifluoromethane (SUR)	*114*	*70-145*	
Toluene-d8 (SUR)	*100*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 13:40	**Site:**			
Sample #:	**385825-112**	**Client Sample #:**	S2/SG2-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173759	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.90 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**66.9**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**7.60**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**5.72**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**6.31**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.68**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**20.7**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**20.1**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	1	0.24	5	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	1	0.15	5	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	1	0.29	5	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	1	0.22	5	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1	0.74	5	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	1	0.33	5	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	1	0.28	5	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	1	0.12	5	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	1	0.14	5	ug/Kg		12/29/16	ZZ	
1,2-Dichloropropane	ND	1	0.34	5	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	1	0.24	5	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	ND	1	0.72	100	ug/Kg		12/29/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	1	0.3	5	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	1	0.25	5	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	1	0.22	5	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	1	0.27	5	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	1	0.17	5	ug/Kg		12/29/16	ZZ	
Acetone	ND	1	10	100	ug/Kg		12/29/16	ZZ	
Allyl Chloride	ND	1	0.14	5	ug/Kg		12/29/16	ZZ	
Benzene	**0.59 J**	1	0.18	5	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	1	0.3	5	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 13:40	**Site:**			
Sample #:	**385825-112**	**Client Sample #:**	S2/SG2-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Bromodichloromethane	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
Bromoform	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	1	0.22	5	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
Chloroform	ND	1	0.17	5	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
Di-isopropyl ether (DIPE)	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
Ethylbenzene	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	1	0.42	5	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	1	0.42	5	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	1	0.25	5	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	1	0.38	5	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	1	0.21	5	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1	0.17	5	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	1	0.16	5	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	1	0.25	5	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	1	0.22	5	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	1	0.28	5	ug/Kg		12/29/16	ZZ	
Styrene	ND	1	0.13	5	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	1	8.8	10	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	1	0.34	5	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
Toluene	**0.26 J**	1	0.17	5	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	1	0.19	5	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	1	0.18	5	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	1	0.2	5	ug/Kg		12/29/16	ZZ	
Trichloroethene	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	1	0.23	5	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	1	0.14	5	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	1	0.38	5	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*127*	*70-145*	
4-Bromofluorobenzene (SUR)	*129*	*70-145*	
Dibromodifluoromethane (SUR)	*115*	*70-145*	
Toluene-d8 (SUR)	*104*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 14:35	**Site:**			
Sample #:	**385825-113**	**Client Sample #:**	S3/SG3-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.10**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**172**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.50**	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**19.7**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**14.1**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**19.8**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**0.90**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**11.6**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**41.2**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**47.4**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	0.93	0.2232	4.65	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	0.93	0.1395	4.65	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.93	0.2697	4.65	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	0.93	0.2046	4.65	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.93	0.6882	4.65	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.93	0.3069	4.65	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.93	0.2604	4.65	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	0.93	0.1116	4.65	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	0.93	0.1302	4.65	ug/Kg		12/29/16	ZZ	
1,2-Dichloropropane	ND	0.93	0.3162	4.65	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	0.93	0.2232	4.65	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	**1.1 J**	0.93	0.6696	93	ug/Kg		12/29/16	ZZ	J
2-Chloroethyl Vinyl Ether	ND	0.93	0.279	4.65	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	0.93	0.2325	4.65	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	0.93	0.2046	4.65	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	0.93	0.2511	4.65	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.93	0.1581	4.65	ug/Kg		12/29/16	ZZ	
Acetone	**16 J**	0.93	9.3	93	ug/Kg		12/29/16	ZZ	J
Allyl Chloride	ND	0.93	0.1302	4.65	ug/Kg		12/29/16	ZZ	
Benzene	**1.6 J**	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	0.93	0.279	4.65	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 14:35	**Site:**			
Sample #:	**385825-113**	**Client Sample #:**	S3/SG3-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Bromodichloromethane	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
Bromoform	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	0.93	0.2046	4.65	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
Chloroform	ND	0.93	0.1581	4.65	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
Di-isopropyl ether (DIPE)	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
Ethylbenzene	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.93	0.3906	4.65	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	0.93	0.3906	4.65	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	0.93	0.2325	4.65	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	0.93	0.3534	4.65	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	0.93	0.1953	4.65	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.93	0.1581	4.65	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	0.93	0.1488	4.65	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	0.93	0.2325	4.65	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	0.93	0.2046	4.65	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	0.93	0.2604	4.65	ug/Kg		12/29/16	ZZ	
Styrene	ND	0.93	0.1209	4.65	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.93	8.184	9.3	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	0.93	0.3162	4.65	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
Toluene	**0.53 J**	0.93	0.1581	4.65	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	0.93	0.1767	4.65	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	0.93	0.1674	4.65	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.93	0.186	4.65	ug/Kg		12/29/16	ZZ	
Trichloroethene	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	0.93	0.2139	4.65	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	0.93	0.1302	4.65	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	0.93	0.3534	4.65	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*136*	*70-145*	
4-Bromofluorobenzene (SUR)	*119*	*70-145*	
Dibromodifluoromethane (SUR)	*119*	*70-145*	
Toluene-d8 (SUR)	*100*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 14:40	**Site:**			
Sample #:	**385825-114**	**Client Sample #:**	S3/SG3-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.82 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**66.1**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**6.08**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**5.73**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**5.97**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.26**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**18.7**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**18.3**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	0.96	0.144	4.8	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	0.96	0.2784	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	0.96	0.7104	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	0.96	0.3168	4.8	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	0.96	0.1152	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
1,2-Dichloropropane	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	0.96	0.2304	4.8	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	ND	0.96	0.6912	96	ug/Kg		12/29/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	0.96	0.2592	4.8	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Acetone	ND	0.96	9.6	96	ug/Kg		12/29/16	ZZ	
Allyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Benzene	**0.44 J**	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	0.96	0.288	4.8	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 14:40	**Site:**			
Sample #:	**385825-114**	**Client Sample #:**	S3/SG3-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Bromodichloromethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Bromoform	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Chloroform	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Di-isopropyl ether (DIPE)	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Ethylbenzene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	0.96	0.4032	4.8	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	0.96	0.2016	4.8	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	0.96	0.1536	4.8	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	0.96	0.24	4.8	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	0.96	0.2112	4.8	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	0.96	0.2688	4.8	ug/Kg		12/29/16	ZZ	
Styrene	ND	0.96	0.1248	4.8	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	0.96	8.448	9.6	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	0.96	0.3264	4.8	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Toluene	**0.28 J**	0.96	0.1632	4.8	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	0.96	0.1824	4.8	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	0.96	0.1728	4.8	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	0.96	0.192	4.8	ug/Kg		12/29/16	ZZ	
Trichloroethene	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	0.96	0.2208	4.8	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	0.96	0.1344	4.8	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	0.96	0.3648	4.8	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*138*	*70-145*	
4-Bromofluorobenzene (SUR)	*117*	*70-145*	
Dibromodifluoromethane (SUR)	*120*	*70-145*	
Toluene-d8 (SUR)	*101*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 11:05	**Site:**			
Sample #:	**385825-115**	**Client Sample #:**	S50/SG4-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.60**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**174**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.39 J**	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Chromium	**17.3**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**13.2**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**19.0**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**0.40 J**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**10.4**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	**1.53**	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**36.8**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**51.5**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**19**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*69*	*50-150*	

Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	1.06	0.2544	5.3	ug/Kg		12/28/16	ZZ	
1,1,1-Trichloroethane	ND	1.06	0.159	5.3	ug/Kg		12/28/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	1.06	0.3074	5.3	ug/Kg		12/28/16	ZZ	
1,1,2-Trichloroethane	ND	1.06	0.2332	5.3	ug/Kg		12/28/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1.06	0.7844	5.3	ug/Kg		12/28/16	ZZ	
1,1-Dichloroethane	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
1,1-Dichloroethene	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
1,1-Dichloropropene	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
1,2,3-Trichlorobenzene	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
1,2,3-Trichloropropane	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
1,2,4-Trichlorobenzene	ND	1.06	0.3498	5.3	ug/Kg		12/28/16	ZZ	
1,2,4-Trimethylbenzene	ND	1.06	0.2968	5.3	ug/Kg		12/28/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
1,2-Dibromoethane	ND	1.06	0.1272	5.3	ug/Kg		12/28/16	ZZ	
1,2-Dichlorobenzene	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
1,2-Dichloroethane	ND	1.06	0.1484	5.3	ug/Kg		12/28/16	ZZ	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	12/22/2016 11:05	Site:			
Sample #:	385825-115	Client Sample #:	S50/SG4-5'	Sample Type:	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
1,2-Dichloropropane	ND	1.06	0.3604	5.3	ug/Kg		12/28/16	ZZ	
1,3,5-Trimethylbenzene	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
1,3-Dichlorobenzene	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
1,3-Dichloropropane	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
1,4-Dichlorobenzene	ND	1.06	0.2544	5.3	ug/Kg		12/28/16	ZZ	
2,2-Dichloropropane	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
2-Butanone (MEK)	ND	1.06	0.7632	106	ug/Kg		12/28/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	1.06	0.318	5.3	ug/Kg		12/28/16	ZZ	
2-Chlorotoluene	ND	1.06	0.265	5.3	ug/Kg		12/28/16	ZZ	
4-Chlorotoluene	ND	1.06	0.2332	5.3	ug/Kg		12/28/16	ZZ	
4-Isopropyltoluene	ND	1.06	0.2862	5.3	ug/Kg		12/28/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	1.06	0.1802	5.3	ug/Kg		12/28/16	ZZ	
Acetone	ND	1.06	10.6	106	ug/Kg		12/28/16	ZZ	
Allyl Chloride	ND	1.06	0.1484	5.3	ug/Kg		12/28/16	ZZ	
Benzene	**0.39 J**	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	J
Bromobenzene	ND	1.06	0.318	5.3	ug/Kg		12/28/16	ZZ	
Bromochloromethane	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
Bromodichloromethane	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
Bromoform	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
Bromomethane	ND	1.06	0.2332	5.3	ug/Kg		12/28/16	ZZ	
Carbon Tetrachloride	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
Chlorobenzene	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
Chlorodibromomethane	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
Chloroethane	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
Chloroform	ND	1.06	0.1802	5.3	ug/Kg		12/28/16	ZZ	
Chloromethane	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
cis-1,2-Dichloroethene	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
cis-1,3-dichloropropene	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
cis-1,4-dichloro-2-butene	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	
Dibromomethane	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
Dichlorodifluoromethane	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
Di-isopropyl ether (DIPE)	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
Ethylbenzene	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	1.06	0.4452	5.3	ug/Kg		12/28/16	ZZ	
Hexachlorobutadiene	ND	1.06	0.4452	5.3	ug/Kg		12/28/16	ZZ	
Isopropylbenzene	ND	1.06	0.265	5.3	ug/Kg		12/28/16	ZZ	
m and p-Xylene	ND	1.06	0.4028	5.3	ug/Kg		12/28/16	ZZ	
Methylene chloride	ND	1.06	0.2226	5.3	ug/Kg		12/28/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1.06	0.1802	5.3	ug/Kg		12/28/16	ZZ	
Naphthalene	ND	1.06	0.1696	5.3	ug/Kg		12/28/16	ZZ	
N-butylbenzene	ND	1.06	0.265	5.3	ug/Kg		12/28/16	ZZ	
N-propylbenzene	ND	1.06	0.2332	5.3	ug/Kg		12/28/16	ZZ	
o-Xylene	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
Sec-butylbenzene	ND	1.06	0.2968	5.3	ug/Kg		12/28/16	ZZ	
Styrene	ND	1.06	0.1378	5.3	ug/Kg		12/28/16	ZZ	
t-Butyl alcohol (TBA)	ND	1.06	9.328	10.6	ug/Kg		12/28/16	ZZ	
Tert-amylmethylether (TAME)	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
Tert-butylbenzene	ND	1.06	0.3604	5.3	ug/Kg		12/28/16	ZZ	
Tetrachloroethene	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
Toluene	**0.25 J**	1.06	0.1802	5.3	ug/Kg		12/28/16	ZZ	J
trans-1,2-dichloroethene	ND	1.06	0.2014	5.3	ug/Kg		12/28/16	ZZ	
trans-1,3-dichloropropene	ND	1.06	0.1908	5.3	ug/Kg		12/28/16	ZZ	
trans-1,4-dichloro-2-butene	ND	1.06	0.212	5.3	ug/Kg		12/28/16	ZZ	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 11:05	**Site:**			
Sample #:	**385825-115**	**Client Sample #:**	S50/SG4-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Trichloroethene	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
Trichlorofluoromethane	ND	1.06	0.2438	5.3	ug/Kg		12/28/16	ZZ	
Vinyl Chloride	ND	1.06	0.1484	5.3	ug/Kg		12/28/16	ZZ	
Xylenes (Total)	ND	1.06	0.4028	5.3	ug/Kg		12/28/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*131*	*70-145*	
4-Bromofluorobenzene (SUR)	*117*	*70-145*	
Dibromodifluoromethane (SUR)	*110*	*70-145*	
Toluene-d8 (SUR)	*101*	*70-145*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 11:10	**Site:**			
Sample #:	**385825-116**	**Client Sample #:**	S50/SG4-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.25**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**87.4**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**9.76**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**7.53**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**8.43**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**4.62**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**25.8**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**24.9**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**19**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*60*	*50-150*	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8260B *NELAC* Prep Method: EPA 5035A							QCBatchID:	QC1173695	
1,1,1,2-Tetrachloroethane	ND	1.04	0.2496	5.2	ug/Kg		12/29/16	ZZ	
1,1,1-Trichloroethane	ND	1.04	0.156	5.2	ug/Kg		12/29/16	ZZ	
1,1,2,2-Tetrachloroethane	ND	1.04	0.3016	5.2	ug/Kg		12/29/16	ZZ	
1,1,2-Trichloroethane	ND	1.04	0.2288	5.2	ug/Kg		12/29/16	ZZ	
1,1,2-Trichlorotrifluoroethane	ND	1.04	0.7696	5.2	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethane	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
1,1-Dichloroethene	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
1,1-Dichloropropene	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
1,2,3-Trichlorobenzene	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
1,2,3-Trichloropropane	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
1,2,4-Trichlorobenzene	ND	1.04	0.3432	5.2	ug/Kg		12/29/16	ZZ	
1,2,4-Trimethylbenzene	ND	1.04	0.2912	5.2	ug/Kg		12/29/16	ZZ	
1,2-Dibromo-3-chloropropane	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
1,2-Dibromoethane	ND	1.04	0.1248	5.2	ug/Kg		12/29/16	ZZ	
1,2-Dichlorobenzene	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
1,2-Dichloroethane	ND	1.04	0.1456	5.2	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	12/22/2016 11:10	Site:			
Sample #:	385825-116	Client Sample #:	S50/SG4-10'	Sample Type:	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
1,2-Dichloropropane	ND	1.04	0.3536	5.2	ug/Kg		12/29/16	ZZ	
1,3,5-Trimethylbenzene	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
1,3-Dichlorobenzene	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
1,3-Dichloropropane	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
1,4-Dichlorobenzene	ND	1.04	0.2496	5.2	ug/Kg		12/29/16	ZZ	
2,2-Dichloropropane	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
2-Butanone (MEK)	ND	1.04	0.7488	104	ug/Kg		12/29/16	ZZ	
2-Chloroethyl Vinyl Ether	ND	1.04	0.312	5.2	ug/Kg		12/29/16	ZZ	
2-Chlorotoluene	ND	1.04	0.26	5.2	ug/Kg		12/29/16	ZZ	
4-Chlorotoluene	ND	1.04	0.2288	5.2	ug/Kg		12/29/16	ZZ	
4-Isopropyltoluene	ND	1.04	0.2808	5.2	ug/Kg		12/29/16	ZZ	
4-Methyl-2-pentanone (MIBK)	ND	1.04	0.1768	5.2	ug/Kg		12/29/16	ZZ	
Acetone	ND	1.04	10.4	104	ug/Kg		12/29/16	ZZ	
Allyl Chloride	ND	1.04	0.1456	5.2	ug/Kg		12/29/16	ZZ	
Benzene	**0.47 J**	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	J
Bromobenzene	ND	1.04	0.312	5.2	ug/Kg		12/29/16	ZZ	
Bromochloromethane	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
Bromodichloromethane	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
Bromoform	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
Bromomethane	ND	1.04	0.2288	5.2	ug/Kg		12/29/16	ZZ	
Carbon Tetrachloride	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
Chlorobenzene	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
Chlorodibromomethane	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
Chloroethane	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
Chloroform	ND	1.04	0.1768	5.2	ug/Kg		12/29/16	ZZ	
Chloromethane	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
cis-1,2-Dichloroethene	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
cis-1,3-dichloropropene	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
cis-1,4-dichloro-2-butene	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	
Dibromomethane	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
Dichlorodifluoromethane	**2.6 J**	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	J
Di-isopropyl ether (DIPE)	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
Ethylbenzene	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
Ethyl-tertbutylether (ETBE)	ND	1.04	0.4368	5.2	ug/Kg		12/29/16	ZZ	
Hexachlorobutadiene	ND	1.04	0.4368	5.2	ug/Kg		12/29/16	ZZ	
Isopropylbenzene	ND	1.04	0.26	5.2	ug/Kg		12/29/16	ZZ	
m and p-Xylene	ND	1.04	0.3952	5.2	ug/Kg		12/29/16	ZZ	
Methylene chloride	ND	1.04	0.2184	5.2	ug/Kg		12/29/16	ZZ	
Methyl-t-butyl Ether (MTBE)	ND	1.04	0.1768	5.2	ug/Kg		12/29/16	ZZ	
Naphthalene	ND	1.04	0.1664	5.2	ug/Kg		12/29/16	ZZ	
N-butylbenzene	ND	1.04	0.26	5.2	ug/Kg		12/29/16	ZZ	
N-propylbenzene	ND	1.04	0.2288	5.2	ug/Kg		12/29/16	ZZ	
o-Xylene	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
Sec-butylbenzene	ND	1.04	0.2912	5.2	ug/Kg		12/29/16	ZZ	
Styrene	ND	1.04	0.1352	5.2	ug/Kg		12/29/16	ZZ	
t-Butyl alcohol (TBA)	ND	1.04	9.152	10.4	ug/Kg		12/29/16	ZZ	
Tert-amylmethylether (TAME)	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
Tert-butylbenzene	ND	1.04	0.3536	5.2	ug/Kg		12/29/16	ZZ	
Tetrachloroethene	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
Toluene	**0.34 J**	1.04	0.1768	5.2	ug/Kg		12/29/16	ZZ	J
trans-1,2-dichloroethene	ND	1.04	0.1976	5.2	ug/Kg		12/29/16	ZZ	
trans-1,3-dichloropropene	ND	1.04	0.1872	5.2	ug/Kg		12/29/16	ZZ	
trans-1,4-dichloro-2-butene	ND	1.04	0.208	5.2	ug/Kg		12/29/16	ZZ	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	12/22/2016 11:10	Site:			
Sample #:	**385825-116**	Client Sample #:	S50/SG4-10'	Sample Type:	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Trichloroethene	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
Trichlorofluoromethane	ND	1.04	0.2392	5.2	ug/Kg		12/29/16	ZZ	
Vinyl Chloride	ND	1.04	0.1456	5.2	ug/Kg		12/29/16	ZZ	
Xylenes (Total)	ND	1.04	0.3952	5.2	ug/Kg		12/29/16	ZZ	

Surrogate	*% Recovery*	*Limits*	*Notes*
1,2-Dichloroethane-d4 (SUR)	*134*	*70-145*	
4-Bromofluorobenzene (SUR)	*112*	*70-145*	
Dibromodifluoromethane (SUR)	*115*	*70-145*	
Toluene-d8 (SUR)	*100*	*70-145*	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	12/22/2016 09:10	Site:			
Sample #:	**385825-117**	Client Sample #:	S59-5'	Sample Type:	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.12**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**162**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.49 J**	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Chromium	**16.6**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**12.6**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**17.7**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**9.94**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	**1.68**	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**33.7**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**43.1**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC*	Prep Method: EPA 7471A						QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M	Prep Method:						QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**20**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC*	Prep Method: EPA 3545						QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*51*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 09:15	**Site:**			
Sample #:	**385825-118**	**Client Sample #:**	S59-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.68 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**77.7**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**6.67**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**6.04**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**6.59**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.80**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**19.1**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**20.3**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**15**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*72*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 09:30	**Site:**			
Sample #:	**385825-119**	**Client Sample #:**	S60-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.83 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**180**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.78**	1	0.21	0.5	mg/Kg	12/28/16	01/04/17	JN	
Chromium	**19.5**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**14.6**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**20.6**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**0.46 J**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**11.7**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	**1.36**	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**37.9**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**49.2**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**14**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*55*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 09:35	**Site:**			
Sample #:	**385825-120**	**Client Sample #:**	S60-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.58 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**62.5**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**5.99**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**7.34**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**6.76**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.92**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**19.4**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**18.3**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**19**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*55*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 08:50	**Site:**			
Sample #:	**385825-121**	**Client Sample #:**	S61-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.14**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**190**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.49 J**	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Chromium	**19.1**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**14.4**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**20.3**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**0.47 J**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**11.4**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	**1.12**	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**38.8**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**48.6**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**19**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*66*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 09:00	**Site:**			
Sample #:	**385825-122**	**Client Sample #:**	S61-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.79 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**90.2**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**6.51**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**5.16**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**5.27**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	**0.75**	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.30**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/29/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**18.1**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**18.6**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**15**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*63*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 08:20	**Site:**			
Sample #:	**385825-123**	**Client Sample #:**	S62-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.61 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**167**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.57**	1	0.21	0.5	mg/Kg	12/28/16	12/30/16	JN	
Chromium	**18.7**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**13.8**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**18.3**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**10.7**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**36.4**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**45.8**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**17**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*72*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 08:30	**Site:**			
Sample #:	**385825-124**	**Client Sample #:**	S62-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.56 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**49.7**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**5.25**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**4.18**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**7.28**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**2.55**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**14.3**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**13.8**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
TPH (C28 to C40)	**17**	1		50	mg/Kg	12/28/16	12/29/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/29/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*96*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 10:35	**Site:**			
Sample #:	**385825-125**	**Client Sample #:**	S63-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**1.08**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	
Barium	**84.0**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**9.32**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**7.63**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**9.24**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**4.40**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**23.2**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**25.0**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
TPH (C28 to C40)	**16**	1		50	mg/Kg	12/28/16	12/30/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*68*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 10:40	**Site:**			
Sample #:	**385825-126**	**Client Sample #:**	S63-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.98 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**67.3**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**6.72**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**5.95**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**8.71**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**3.85**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**20.2**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**19.2**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
TPH (C28 to C40)	**13**	1		50	mg/Kg	12/28/16	12/30/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*54*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 10:15	**Site:**			
Sample #:	**385825-127**	**Client Sample #:**	S64-5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.97 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**155**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	**0.48 J**	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	J
Chromium	**15.5**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**12.0**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**16.8**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**8.90**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	**0.83 J**	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	J
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**33.9**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**38.3**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
TPH (C28 to C40)	**12**	1		50	mg/Kg	12/28/16	12/30/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*58*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/22/2016 10:25	**Site:**			
Sample #:	**385825-128**	**Client Sample #:**	S64-10'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 3050B							QCBatchID:	QC1173760	
Antimony	ND	1	0.37	3	mg/Kg	12/28/16	12/29/16	JN	
Arsenic	**0.55 J**	1	0.36	1	mg/Kg	12/28/16	12/29/16	JN	J
Barium	**60.8**	1	0.23	1	mg/Kg	12/28/16	12/29/16	JN	
Beryllium	ND	1	0.17	0.5	mg/Kg	12/28/16	12/29/16	JN	
Cadmium	ND	1	0.21	0.5	mg/Kg	12/28/16	12/29/16	JN	
Chromium	**4.03**	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Cobalt	**4.64**	1	0.19	0.5	mg/Kg	12/28/16	12/29/16	JN	
Copper	**6.40**	1	0.31	1	mg/Kg	12/28/16	12/29/16	JN	
Lead	ND	1	0.32	0.5	mg/Kg	12/28/16	12/29/16	JN	
Molybdenum	ND	1	0.13	1	mg/Kg	12/28/16	12/29/16	JN	
Nickel	**2.37**	1	0.2	1.5	mg/Kg	12/28/16	12/29/16	JN	
Selenium	ND	1	0.72	1	mg/Kg	12/28/16	12/30/16	JN	
Silver	ND	1	0.13	0.5	mg/Kg	12/28/16	12/29/16	JN	
Thallium	ND	1	0.42	1	mg/Kg	12/28/16	12/29/16	JN	
Vanadium	**14.7**	1	0.37	0.5	mg/Kg	12/28/16	12/29/16	JN	
Zinc	**16.0**	1	0.28	5	mg/Kg	12/28/16	12/29/16	JN	
Method: EPA 7471A *NELAC* Prep Method: EPA 7471A							QCBatchID:	QC1173955	
Mercury	ND	1	0.02	0.14	mg/Kg	01/03/18	01/03/17	JP	
Method: EPA 8015M Prep Method:							QCBatchID:	QC1173797	
TPH (C10 to C28)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
TPH (C28 to C40)	**12**	1		50	mg/Kg	12/28/16	12/30/16	LT	
TPH (C8 to C10)	ND	1		10	mg/Kg	12/28/16	12/30/16	LT	
Method: EPA 8082 *NELAC* Prep Method: EPA 3545							QCBatchID:	QC1173791	
PCB-1016	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1221	ND	1	0.014	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1232	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1242	ND	1	0.0073	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1248	ND	1	0.0066	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1254	ND	1	0.01	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1260	ND	1	0.018	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1262	ND	1	0.02	0.05	mg/Kg	12/28/16	12/29/16	LW	
PCB-1268	ND	1	0.011	0.05	mg/Kg	12/28/16	12/29/16	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*60*	*50-150*	

Matrix:	Water	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	12/29/2016 14:20	**Site:**			
Sample #:	**385825-129**	**Client Sample #:**	Drum Water	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8015B *NELAC* Prep Method: EPA 3510C							QCBatchID:	QC1174000	
TPH (C10 to C28)	**0.87**	1	0.04	0.2	mg/L	01/01/17	01/04/17	LT	
TPH (C28 to C40)	ND	1	0.07	0.3	mg/L	01/01/17	01/04/17	LT	
TPH (C8 to C10)	ND	1	0.06	0.2	mg/L	01/01/17	01/04/17	LT	

Surrogate	*% Recovery*	*Limits*	*Notes*
Triacontane (SUR)	*65*	*50-150*	

QCBatchID: QC1173682	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/25/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173682MB1					
4,4'-DDD	ND	mg/Kg	0.67	5	
4,4'-DDE	ND	mg/Kg	0.57	5	
4,4'-DDT	ND	mg/Kg	0.95	5	
a-BHC	ND	mg/Kg	0.2	5	
Aldrin	ND	mg/Kg	0.34	5	
b-BHC	ND	mg/Kg	1.2	5	
Chlordane (technical)	ND	mg/Kg	12	50	
cis-chlordane	ND	mg/Kg			
d-BHC	ND	mg/Kg	0.45	5	
Dieldrin	ND	mg/Kg	0.63	5	
Endosulfan I	ND	mg/Kg	0.28	5	
Endosulfan II	ND	mg/Kg	0.8	5	
Endosulfan sulfate	ND	mg/Kg	1.7	5	
Endrin	ND	mg/Kg	0.62	5	
Endrin aldehyde	ND	mg/Kg	0.9	5	
Endrin Ketone	ND	mg/Kg	1.2	5	
Heptachlor	ND	mg/Kg	0.44	5	
Heptachlor epoxide	ND	mg/Kg	0.27	5	
Hexachlorobenzene	ND	mg/Kg			
Lindane (Gamma-BHC)	ND	mg/Kg	0.3	5	
Methoxychlor	ND	mg/Kg	5.2	10	
Toxaphene	ND	mg/Kg	12	100	
trans-chlordane	ND	mg/Kg			

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682LCS1											
4,4'-DDE	0.005		0.004		mg/Kg	80			70-130		
4,4'-DDT	0.005		0.004		mg/Kg	80			70-130		
a-BHC	0.005		0.004		mg/Kg	80			70-130		
Aldrin	0.005		0.004		mg/Kg	80			70-130		
b-BHC	0.005		0.004		mg/Kg	80			70-130		
d-BHC	0.005		0.004		mg/Kg	80			70-130		
Dieldrin	0.005		0.004		mg/Kg	80			70-130		
Endosulfan I	0.005		0.004		mg/Kg	80			70-130		
Endosulfan II	0.005		0.004		mg/Kg	80			70-130		
Endosulfan sulfate	0.005		0.004		mg/Kg	80			70-130		
Endrin	0.005		0.004		mg/Kg	80			70-130		
Endrin aldehyde	0.005		0.004		mg/Kg	80			70-130		
Heptachlor	0.005		0.004		mg/Kg	80			70-130		
Heptachlor epoxide	0.005		0.004		mg/Kg	80			70-130		
Lindane (Gamma-BHC)	0.005		0.004		mg/Kg	80			70-130		
Methoxychlor	0.005		0.004		mg/Kg	80			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682MS1, QC1173682MSD1												**Source: 385747-061**
4,4'-DDE	0.011	0.005	0.005	0.013	0.018	mg/Kg	40	140	32.3	70-130	20	M
4,4'-DDT	0.006	0.005	0.005	0.009	0.010	mg/Kg	60	80	158.3	70-130	20	M

QCBatchID: QC1173682	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/25/2016	Instrument: SVOA-GC (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173682MS1, QC1173682MSD1												**Source: 385747-061**
a-BHC	ND	0.005	0.005	0.004	0.006	mg/Kg	80	120	40.0	70-130	20	M
Aldrin	ND	0.005	0.005	0.004	0.005	mg/Kg	80	100	22.2	70-130	20	M
b-BHC	ND	0.005	0.005	0.003	0.005	mg/Kg	60	100	50.0	70-130	20	M
d-BHC	ND	0.005	0.005	0.001	0.005	mg/Kg	20	100	133.3	70-130	20	M
Dieldrin	0.001	0.005	0.005	0.003	0.009	mg/Kg	40	160	97.1	70-130	20	M
Endosulfan I	ND	0.005	0.005	0.002	0.004	mg/Kg	40	80	66.7	70-130	20	M
Endosulfan II	ND	0.005	0.005	0.001	0.004	mg/Kg	20	80	85.7	70-130	20	M
Endosulfan sulfate	ND	0.005	0.005	0.000	0.002	mg/Kg	0	40	66.7	70-130	20	M
Endrin	ND	0.005	0.005	0.001	0.005	mg/Kg	20	100	88.9	70-130	20	M
Endrin aldehyde	ND	0.005	0.005	0.001	0.003	mg/Kg	20	60	107.7	70-130	20	M
Heptachlor	ND	0.005	0.005	0.004	0.005	mg/Kg	80	100	22.2	70-130	20	M
Heptachlor epoxide	ND	0.005	0.005	0.002	0.005	mg/Kg	40	100	85.7	70-130	20	M
Lindane (Gamma-BHC)	ND	0.005	0.005	0.004	0.006	mg/Kg	80	120	40.0	70-130	20	M
Methoxychlor	ND	0.005	0.005	0.001	0.006	mg/Kg	20	120	28.6	70-130	20	M

QCBatchID: QC1173683	Analyst: nicollez	Method: EPA 8260B
Matrix: Solid	Analyzed: 12/26/2016	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173683MB1					
1,1,1,2-Tetrachloroethane	ND	ug/Kg	0.24	5	
1,1,1-Trichloroethane	ND	ug/Kg	0.15	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	0.29	5	
1,1,2-Trichloroethane	ND	ug/Kg	0.22	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	0.74	5	
1,1-Dichloroethane	ND	ug/Kg	0.23	5	
1,1-Dichloroethene	ND	ug/Kg	0.18	5	
1,1-Dichloropropene	ND	ug/Kg	0.21	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	0.18	5	
1,2,3-Trichloropropane	ND	ug/Kg	0.2	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	0.33	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	0.28	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	0.2	5	
1,2-Dibromoethane	ND	ug/Kg	0.12	5	
1,2-Dichlorobenzene	ND	ug/Kg	0.18	5	
1,2-Dichloroethane	ND	ug/Kg	0.14	5	
1,2-Dichloropropane	ND	ug/Kg	0.34	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	0.23	5	
1,3-Dichlorobenzene	ND	ug/Kg	0.21	5	
1,3-Dichloropropane	ND	ug/Kg	0.19	5	
1,4-Dichlorobenzene	ND	ug/Kg	0.24	5	
2,2-Dichloropropane	ND	ug/Kg	0.19	5	
2-Butanone (MEK)	ND	ug/Kg	0.72	100	
2-Chloroethyl Vinyl Ether	ND	ug/Kg	0.3	5	
2-Chlorotoluene	ND	ug/Kg	0.25	5	
4-Chlorotoluene	ND	ug/Kg	0.22	5	
4-Isopropyltoluene	ND	ug/Kg	0.27	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	0.17	5	
Acetone	ND	ug/Kg	10	100	
Allyl Chloride	ND	ug/Kg	0.14	5	
Benzene	ND	ug/Kg	0.18	5	
Bromobenzene	ND	ug/Kg	0.3	5	
Bromochloromethane	ND	ug/Kg	0.18	5	
Bromodichloromethane	ND	ug/Kg	0.2	5	
Bromoform	ND	ug/Kg	0.19	5	
Bromomethane	ND	ug/Kg	0.22	5	
Carbon Tetrachloride	ND	ug/Kg	0.18	5	
Chlorobenzene	ND	ug/Kg	0.18	5	
Chlorodibromomethane	ND	ug/Kg	0.19	5	
Chloroethane	ND	ug/Kg	0.2	5	
Chloroform	ND	ug/Kg	0.17	5	
Chloromethane	ND	ug/Kg	0.21	5	
cis-1,2-Dichloroethene	ND	ug/Kg	0.2	5	
cis-1,3-dichloropropene	ND	ug/Kg	0.2	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	0.2	5	
Dibromomethane	ND	ug/Kg	0.23	5	
Dichlorodifluoromethane	ND	ug/Kg	0.23	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	0.21	5	
Ethylbenzene	ND	ug/Kg	0.25	5	
Ethyl-tertbutylether (ETBE)	ND	ug/Kg	0.42	5	
Hexachlorobutadiene	ND	ug/Kg	0.38	5	

QCBatchID: QC1173683	Analyst: nicollez	Method: EPA 8260B
Matrix: Solid	Analyzed: 12/26/2016	Instrument: VOA-MS (group)

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173683MB1					
Isopropylbenzene	ND	ug/Kg	0.17	5	
m and p-Xylene	ND	ug/Kg	0.21	5	
Methylene chloride	ND	ug/Kg	0.22	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	0.25	5	
Naphthalene	ND	ug/Kg	0.28	5	
N-butylbenzene	ND	ug/Kg	0.16	5	
N-propylbenzene	ND	ug/Kg	0.19	5	
o-Xylene	ND	ug/Kg	0.13	5	
Sec-butylbenzene	ND	ug/Kg	0.34	5	
Styrene	ND	ug/Kg	0.23	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	8.8	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	0.19	5	
Tert-butylbenzene	ND	ug/Kg	0.18	5	
Tetrachloroethene	ND	ug/Kg	0.2	5	
Toluene	ND	ug/Kg	0.23	5	
trans-1,2-dichloroethene	ND	ug/Kg	0.23	5	
trans-1,3-dichloropropene	ND	ug/Kg	0.14	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	0.38	5	
Trichloroethene	ND	ug/Kg	0.39	5	
Trichlorofluoromethane	ND	ug/Kg	0.25	5	
Vinyl Chloride	ND	ug/Kg	0.18	5	
Xylenes (Total)	ND	ug/Kg	0.45	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173683LCS1											
1,1-Dichloroethene	50		47		ug/Kg	94			59-172		
Benzene	50		45		ug/Kg	90			62-137		
Chlorobenzene	50		49		ug/Kg	98			60-133		
Methyl-t-butyl Ether (MTBE)	50		49		ug/Kg	98			62-137		
Toluene	50		51		ug/Kg	102			59-139		
Trichloroethene	50		47		ug/Kg	94			66-142		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173683MS1, QC1173683MSD1												**Source: 385825-106**
1,1-Dichloroethene	ND	50	50	47	46	ug/Kg	94	92	2.2	59-172	22	
Benzene	ND	50	50	46	45	ug/Kg	92	90	2.2	62-137	24	
Chlorobenzene	ND	50	50	50	49	ug/Kg	100	98	2.0	60-133	24	
Methyl-t-butyl Ether (MTBE)	ND	50	50	52	52	ug/Kg	104	104	0.0	62-137	21	
Toluene	ND	50	50	50	50	ug/Kg	100	100	0.0	59-139	21	
Trichloroethene	ND	50	50	57	80	ug/Kg	114	160	33.6	66-142	21	M

QCBatchID: QC1173693	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/27/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173693MB1					
4,4'-DDD	ND	mg/Kg	0.67	5	
4,4'-DDE	ND	mg/Kg	0.57	5	
4,4'-DDT	ND	mg/Kg	0.95	5	
a-BHC	ND	mg/Kg	0.2	5	
Aldrin	ND	mg/Kg	0.34	5	
b-BHC	ND	mg/Kg	1.2	5	
Chlordane (technical)	ND	mg/Kg	12	50	
d-BHC	ND	mg/Kg	0.45	5	
Dieldrin	ND	mg/Kg	0.63	5	
Endosulfan I	ND	mg/Kg	0.28	5	
Endosulfan II	ND	mg/Kg	0.8	5	
Endosulfan sulfate	ND	mg/Kg	1.7	5	
Endrin	ND	mg/Kg	0.62	5	
Endrin aldehyde	ND	mg/Kg	0.9	5	
Endrin Ketone	ND	mg/Kg	1.2	5	
Heptachlor	ND	mg/Kg	0.44	5	
Heptachlor epoxide	ND	mg/Kg	0.27	5	
Lindane (Gamma-BHC)	ND	mg/Kg	0.3	5	
Methoxychlor	ND	mg/Kg	5.2	10	
Toxaphene	ND	mg/Kg	12	100	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173693LCS1											
4,4'-DDE	0.005		0.00390		mg/Kg	78			70-130		
4,4'-DDT	0.005		0.00420		mg/Kg	84			70-130		
a-BHC	0.005		0.00370		mg/Kg	74			70-130		
Aldrin	0.005		0.00380		mg/Kg	76			70-130		
b-BHC	0.005		0.00390		mg/Kg	78			70-130		
d-BHC	0.005		0.00440		mg/Kg	88			70-130		
Dieldrin	0.005		0.00380		mg/Kg	76			70-130		
Endosulfan I	0.005		0.00360		mg/Kg	72			70-130		
Endosulfan II	0.005		0.00350		mg/Kg	70			70-130		
Endosulfan sulfate	0.005		0.00430		mg/Kg	86			70-130		
Endrin	0.005		0.00420		mg/Kg	84			70-130		
Endrin aldehyde	0.005		0.00340		mg/Kg	68			70-130		L
Heptachlor	0.005		0.00390		mg/Kg	78			70-130		
Heptachlor epoxide	0.005		0.00380		mg/Kg	76			70-130		
Lindane (Gamma-BHC)	0.005		0.00390		mg/Kg	78			70-130		
Methoxychlor	0.005		0.0048		mg/Kg	96			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173693MS1, QC1173693MSD1												**Source: 385825-055**
4,4'-DDE	ND	0.005	0.005	0.00240	0.00200	mg/Kg	48	40	18.2	70-130	20	M
4,4'-DDT	ND	0.005	0.005	0.00240	0.00210	mg/Kg	48	42	13.3	70-130	20	M
a-BHC	ND	0.005	0.005	0.00150	0.00170	mg/Kg	30	34	12.5	70-130	20	M
Aldrin	ND	0.005	0.005	0.00160	0.00170	mg/Kg	32	34	6.1	70-130	20	M
b-BHC	ND	0.005	0.005	0.00090	0.00140	mg/Kg	18	28	43.5	70-130	20	M

QCBatchID: QC1173693	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 12/27/2016	Instrument: SVOA-GC (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173693MS1, QC1173693MSD1											**Source:**	**385825-055**
d-BHC	ND	0.005	0.005	0.00051	0.00084	mg/Kg	10	17	48.9	70-130	20	M
Dieldrin	ND	0.005	0.005	0.00054	0.00096	mg/Kg	11	19	56.0	70-130	20	M
Endosulfan I	ND	0.005	0.005	0.00062	0.00110	mg/Kg	12	22	55.8	70-130	20	M
Endosulfan II	ND	0.005	0.005	0.00018	0.00033	mg/Kg	4	7	58.8	70-130	20	M
Endosulfan sulfate	ND	0.005	0.005	0.00016	0.00028	mg/Kg	3	6	54.5	70-130	20	M
Endrin	ND	0.005	0.005	0.00080	0.00110	mg/Kg	16	22	31.6	70-130	20	M
Endrin aldehyde	ND	0.005	0.005	0.00025	0.00030	mg/Kg	5	6	18.2	70-130	20	M
Heptachlor	ND	0.005	0.005	0.00170	0.00190	mg/Kg	34	38	11.1	70-130	20	M
Heptachlor epoxide	ND	0.005	0.005	0.00083	0.00130	mg/Kg	17	26	44.1	70-130	20	M
Lindane (Gamma-BHC)	ND	0.005	0.005	0.00130	0.00170	mg/Kg	26	34	26.7	70-130	20	M
Methoxychlor	ND	0.005	0.005	0.0004	0.0008	mg/Kg	8	16	66.7	70-130	20	M

QCBatchID: QC1173695	Analyst: nicollez	Method: EPA 8260B
Matrix: Solid	Analyzed: 12/27/2016	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173695MB1					
1,1,1,2-Tetrachloroethane	ND	ug/Kg	0.24	5	
1,1,1-Trichloroethane	ND	ug/Kg	0.15	5	
1,1,2,2-Tetrachloroethane	ND	ug/Kg	0.29	5	
1,1,2-Trichloroethane	ND	ug/Kg	0.22	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/Kg	0.74	5	
1,1-Dichloroethane	ND	ug/Kg	0.23	5	
1,1-Dichloroethene	ND	ug/Kg	0.18	5	
1,1-Dichloropropene	ND	ug/Kg	0.21	5	
1,2,3-Trichlorobenzene	ND	ug/Kg	0.18	5	
1,2,3-Trichloropropane	ND	ug/Kg	0.2	5	
1,2,4-Trichlorobenzene	ND	ug/Kg	0.33	5	
1,2,4-Trimethylbenzene	ND	ug/Kg	0.28	5	
1,2-Dibromo-3-chloropropane	ND	ug/Kg	0.2	5	
1,2-Dibromoethane	ND	ug/Kg	0.12	5	
1,2-Dichlorobenzene	ND	ug/Kg	0.18	5	
1,2-Dichloroethane	ND	ug/Kg	0.14	5	
1,2-Dichloropropane	ND	ug/Kg	0.34	5	
1,3,5-Trimethylbenzene	ND	ug/Kg	0.23	5	
1,3-Dichlorobenzene	ND	ug/Kg	0.21	5	
1,3-Dichloropropane	ND	ug/Kg	0.19	5	
1,4-Dichlorobenzene	ND	ug/Kg	0.24	5	
2,2-Dichloropropane	ND	ug/Kg	0.19	5	
2-Butanone (MEK)	ND	ug/Kg	0.72	100	
2-Chloroethyl Vinyl Ether	ND	ug/Kg	0.3	5	
2-Chlorotoluene	ND	ug/Kg	0.25	5	
4-Chlorotoluene	ND	ug/Kg	0.22	5	
4-Isopropyltoluene	ND	ug/Kg	0.27	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/Kg	0.17	5	
Acetone	ND	ug/Kg	10	100	
Allyl Chloride	ND	ug/Kg	0.14	5	
Benzene	ND	ug/Kg	0.18	5	
Bromobenzene	ND	ug/Kg	0.3	5	
Bromochloromethane	ND	ug/Kg	0.18	5	
Bromodichloromethane	ND	ug/Kg	0.2	5	
Bromoform	ND	ug/Kg	0.19	5	
Bromomethane	ND	ug/Kg	0.22	5	
Carbon Tetrachloride	ND	ug/Kg	0.18	5	
Chlorobenzene	ND	ug/Kg	0.18	5	
Chlorodibromomethane	ND	ug/Kg	0.19	5	
Chloroethane	ND	ug/Kg	0.2	5	
Chloroform	ND	ug/Kg	0.17	5	
Chloromethane	ND	ug/Kg	0.21	5	
cis-1,2-Dichloroethene	ND	ug/Kg	0.2	5	
cis-1,3-dichloropropene	ND	ug/Kg	0.2	5	
cis-1,4-dichloro-2-butene	ND	ug/Kg	0.2	5	
Dibromomethane	ND	ug/Kg	0.21	5	
Dichlorodifluoromethane	ND	ug/Kg	0.23	5	
Di-isopropyl ether (DIPE)	ND	ug/Kg	0.21	5	
Ethylbenzene	ND	ug/Kg	0.23	5	
Ethyl-tertbutylether (ETBE)	ND	ug/Kg	0.42	5	
Hexachlorobutadiene	ND	ug/Kg	0.42	5	

QCBatchID: QC1173695	Analyst: nicollez	Method: EPA 8260B
Matrix: Solid	Analyzed: 12/27/2016	Instrument: VOA-MS (group)

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173695MB1					
Isopropylbenzene	ND	ug/Kg	0.25	5	
m and p-Xylene	ND	ug/Kg	0.38	5	
Methylene chloride	ND	ug/Kg	0.21	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/Kg	0.17	5	
Naphthalene	ND	ug/Kg	0.16	5	
N-butylbenzene	ND	ug/Kg	0.25	5	
N-propylbenzene	ND	ug/Kg	0.22	5	
o-Xylene	ND	ug/Kg	0.19	5	
Sec-butylbenzene	ND	ug/Kg	0.28	5	
Styrene	ND	ug/Kg	0.13	5	
t-Butyl alcohol (TBA)	ND	ug/Kg	8.8	10	
Tert-amylmethylether (TAME)	ND	ug/Kg	0.19	5	
Tert-butylbenzene	ND	ug/Kg	0.34	5	
Tetrachloroethene	ND	ug/Kg	0.23	5	
Toluene	ND	ug/Kg	0.17	5	
trans-1,2-dichloroethene	ND	ug/Kg	0.19	5	
trans-1,3-dichloropropene	ND	ug/Kg	0.18	5	
trans-1,4-dichloro-2-butene	ND	ug/Kg	0.2	5	
Trichloroethene	ND	ug/Kg	0.23	5	
Trichlorofluoromethane	ND	ug/Kg	0.23	5	
Vinyl Chloride	ND	ug/Kg	0.14	5	
Xylenes (Total)	ND	ug/Kg	0.38	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173695LCS1											
1,1-Dichloroethene	50		51		ug/Kg	102			59-172		
Benzene	50		44		ug/Kg	88			62-137		
Chlorobenzene	50		54		ug/Kg	108			60-133		
Methyl-t-butyl Ether (MTBE)	50		51		ug/Kg	102			62-137		
Toluene	50		53		ug/Kg	106			59-139		
Trichloroethene	50		52		ug/Kg	104			66-142		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173695MS1, QC1173695MSD1												**Source: 385825-115**
1,1-Dichloroethene	ND	50	50	50	45	ug/Kg	100	90	10.5	59-172	22	
Benzene	0.39	50	50	48	44	ug/Kg	95	87	8.7	62-137	24	
Chlorobenzene	ND	50	50	56	49	ug/Kg	112	98	13.3	60-133	24	
Methyl-t-butyl Ether (MTBE)	ND	50	50	70	61	ug/Kg	140	122	13.7	62-137	21	M
Toluene	0.25	50	50	53	46	ug/Kg	106	92	14.1	59-139	21	
Trichloroethene	ND	50	50	50	45	ug/Kg	100	90	10.5	66-142	21	

QCBatchID:	QC1173758	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	12/28/2016	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173758MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173758LCS1											
Lead	100		105		mg/Kg	105			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173758MS1, QC1173758MSD1												**Source: 385747-064**
Lead	27.9	100	100	102	115	mg/Kg				75-125	20	

QCBatchID: QC1173759	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173759MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173759LCS1											
Antimony	100		108		mg/Kg	108			80-120		
Arsenic	100		87.2		mg/Kg	87			80-120		
Barium	100		99.4		mg/Kg	99			80-120		
Beryllium	100		98.6		mg/Kg	99			80-120		
Cadmium	100		97.8		mg/Kg	98			80-120		
Chromium	100		99.1		mg/Kg	99			80-120		
Cobalt	100		100		mg/Kg	100			80-120		
Copper	100		95.8		mg/Kg	96			80-120		
Lead	100		96.9		mg/Kg	97			80-120		
Molybdenum	100		89.3		mg/Kg	89			80-120		
Nickel	100		95.4		mg/Kg	95			80-120		
Selenium	100		89.2		mg/Kg	89			80-120		
Silver	100		95.2		mg/Kg	95			80-120		
Thallium	100		100		mg/Kg	100			80-120		
Vanadium	100		97.5		mg/Kg	98			80-120		
Zinc	100		89.1		mg/Kg	89			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173759MS1, QC1173759MSD1												**Source: 385825-061**
Antimony	ND	100	100	23.0	25.1	mg/Kg	23	25	8.7	75-125	20	M
Arsenic	3.49	100	100	88.6	85.7	mg/Kg	85	82	3.3	75-125	20	
Barium	88.4	100	100	204	196	mg/Kg	116	108	4.0	75-125	20	
Beryllium	ND	100	100	90.7	87.5	mg/Kg	91	88	3.6	75-125	20	
Cadmium	ND	100	100	87.4	83.0	mg/Kg	87	83	5.2	75-125	20	
Chromium	10.0	100	100	102	94.7	mg/Kg	92	85	7.4	75-125	20	
Cobalt	16.3	100	100	105	97.7	mg/Kg	89	81	7.2	75-125	20	
Copper	11.0	100	100	106	101	mg/Kg	95	90	4.8	75-125	20	
Lead	17.8	100	100	110	119	mg/Kg	92	101	7.9	75-125	20	

QCBatchID: QC1173759	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173759MS1, QC1173759MSD1												**Source: 385825-061**
Molybdenum	ND	100	100	80.1	78.4	mg/Kg	80	78	2.1	75-125	20	
Nickel	9.80	100	100	99.8	96.1	mg/Kg	90	86	3.8	75-125	20	
Selenium	ND	100	100	79.7	81.0	mg/Kg	80	81	1.6	75-125	20	
Silver	ND	100	100	80.5	76.6	mg/Kg	81	77	5.0	75-125	20	
Thallium	ND	100	100	76.4	75.0	mg/Kg	76	75	1.8	75-125	20	
Vanadium	27.9	100	100	123	117	mg/Kg	95	89	5.0	75-125	20	
Zinc	45.1	100	100	133	126	mg/Kg	88	81	5.4	75-125	20	

QCBatchID: QC1173760	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173760MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173760LCS1											
Antimony	100		107		mg/Kg	107			80-120		
Arsenic	100		88.3		mg/Kg	88			80-120		
Barium	100		95.7		mg/Kg	96			80-120		
Beryllium	100		86.7		mg/Kg	87			80-120		
Cadmium	100		102		mg/Kg	102			80-120		
Chromium	100		97.5		mg/Kg	98			80-120		
Cobalt	100		101		mg/Kg	101			80-120		
Copper	100		91.6		mg/Kg	92			80-120		
Lead	100		102		mg/Kg	102			80-120		
Molybdenum	100		97.5		mg/Kg	98			80-120		
Nickel	100		96.1		mg/Kg	96			80-120		
Selenium	100		84.5		mg/Kg	85			80-120		
Silver	100		92.6		mg/Kg	93			80-120		
Thallium	100		87.7		mg/Kg	88			80-120		
Vanadium	100		95.3		mg/Kg	95			80-120		
Zinc	100		88.9		mg/Kg	89			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173760MS1, QC1173760MSD1												**Source: 385825-113**
Antimony	ND	100	100	20.5	23.4	mg/Kg	21	23	13.2	75-125	20	M
Arsenic	1.10	100	100	72.6	76.7	mg/Kg	72	76	5.5	75-125	20	M
Barium	172	100	100	249	246	mg/Kg	77	74	1.2	75-125	20	M
Beryllium	ND	100	100	75.5	76.8	mg/Kg	76	77	1.7	75-125	20	
Cadmium	0.50	100	100	85.7	85.9	mg/Kg	85	85	0.2	75-125	20	
Chromium	19.7	100	100	101	102	mg/Kg	81	82	1.0	75-125	20	
Cobalt	14.1	100	100	95.5	96.0	mg/Kg	81	82	0.5	75-125	20	
Copper	19.8	100	100	100	102	mg/Kg	80	82	2.0	75-125	20	
Lead	0.90	100	100	79.8	82.8	mg/Kg	79	82	3.7	75-125	20	

QCBatchID: QC1173760	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 12/28/2016	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173760MS1, QC1173760MSD1											**Source:**	**385825-113**
Molybdenum	ND	100	100	76.7	80.2	mg/Kg	77	80	4.5	75-125	20	
Nickel	11.6	100	100	93.9	97.0	mg/Kg	82	85	3.2	75-125	20	
Selenium	ND	100	100	69.0	72.5	mg/Kg	69	73	4.9	75-125	20	M
Silver	ND	100	100	76.8	77.5	mg/Kg	77	78	0.9	75-125	20	
Thallium	ND	100	100	56.1	63.0	mg/Kg	56	63	11.6	75-125	20	M
Vanadium	41.2	100	100	121	123	mg/Kg	80	82	1.6	75-125	20	
Zinc	47.4	100	100	122	121	mg/Kg	75	74	0.8	75-125	20	M

QCBatchID:	QC1173791	Analyst:	nhernandez	Method:	EPA 8082
Matrix:	Solid	Analyzed:	12/28/2016	Instrument:	SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173791MB1					
PCB-1016	ND	mg/Kg	3	50	
PCB-1221	ND	mg/Kg	14	50	
PCB-1232	ND	mg/Kg	9.5	50	
PCB-1242	ND	mg/Kg	14	50	
PCB-1248	ND	mg/Kg	19	50	
PCB-1254	ND	mg/Kg	20	50	
PCB-1260	ND	mg/Kg	6.9	50	
PCB-1262	ND	mg/Kg	17	50	
PCB-1268	ND	mg/Kg	8.6	50	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1173791LCS1											
PCB-1016	0.05		0.046		mg/Kg	92			70-130		
PCB-1260	0.05		0.047		mg/Kg	94			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1173791MS1, QC1173791MSD1												**Source: 385825-106**
PCB-1016	ND	0.05	0.05	0.042	0.039	mg/Kg	84	78	7.4	70-130	20	
PCB-1260	ND	0.05	0.05	0.042	0.042	mg/Kg	84	84	0.0	70-130	20	

QCBatchID: QC1173797	Analyst: lytagas	Method: EPA 8015M
Matrix: Solid	Analyzed: 12/29/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173797MB1					
TPH (C10 to C28)	ND	mg/Kg		10	
TPH (C28 to C40)	ND	mg/Kg		20	
TPH (C8 to C10)	ND	mg/Kg		10	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173797LCS1											
TPH (C10 to C28)	250		290		mg/Kg	116			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173797MS1, QC1173797MSD1												**Source: 385825-115**
TPH (C10 to C28)	ND	250	250	240	300	mg/Kg	96	120	22.2	70-130	20	M

QCBatchID: QC1173807	Analyst: sandyw	Method: EPA 8015B
Matrix: Solid	Analyzed: 12/29/2016	Instrument: VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173807MB1					
TPH Gasoline	ND	mg/Kg	0.159	3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173807LCS1											
TPH Gasoline	5		4.01		mg/Kg	80			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173807MS1, QC1173807MSD1												**Source: 385825-106**
TPH Gasoline	ND	5	5	4.03	4.00	mg/Kg	81	80	0.7	70-130	20	

QCBatchID: QC1173808	Analyst: sandyw	Method: EPA 8015B
Matrix: Water	Analyzed: 12/29/2016	Instrument: VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173808MB1					
TPH Gasoline	ND	ug/L	6.6	50	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1173808LCS1, QC1173808LCSD1											
TPH Gasoline	500	500	390	395	ug/L	78	79	1	70-130	30	

QCBatchID: QC1173822	Analyst: nhernandez	Method: EPA 8081A
Matrix: Water	Analyzed: 12/29/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173822MB1					
4,4'-DDD	ND	ug/L	0.011	0.1	
4,4'-DDE	ND	ug/L	0.006	0.1	
4,4'-DDT	ND	ug/L	0.011	0.1	
a-BHC	ND	ug/L	0.002	0.1	
Aldrin	ND	ug/L	0.007	0.1	
b-BHC	ND	ug/L	0.003	0.1	
Chlordane (technical)	ND	ug/L	0.27	1	
d-BHC	ND	ug/L	0.006	0.1	
Dieldrin	ND	ug/L	0.006	0.1	
Endosulfan I	ND	ug/L	0.004	0.1	
Endosulfan II	ND	ug/L	0.011	0.1	
Endosulfan sulfate	ND	ug/L	0.012	0.1	
Endrin	ND	ug/L	0.008	0.1	
Endrin aldehyde	ND	ug/L	0.009	0.1	
Endrin Ketone	ND	ug/L	0.011	0.1	
Heptachlor	ND	ug/L	0.003	0.1	
Heptachlor epoxide	ND	ug/L	0.002	0.1	
Lindane (Gamma-BHC)	ND	ug/L	0.002	0.1	
Methoxychlor	ND	ug/L	0.055	0.1	
Toxaphene	ND	ug/L	0.48	2	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173822LCS1, QC1173822LCSD1											
4,4'-DDE	0.05	0.05	0.039	0.041	ug/L	78	82	5	70-130	20	
4,4'-DDT	0.05	0.05	0.040	0.043	ug/L	80	86	7	70-130	20	
a-BHC	0.05	0.05	0.040	0.045	ug/L	80	90	12	70-130	20	
Aldrin	0.05	0.05	0.037	0.041	ug/L	74	82	10	70-130	20	
b-BHC	0.05	0.05	0.042	0.047	ug/L	84	94	11	70-130	20	
d-BHC	0.05	0.05	0.043	0.049	ug/L	86	98	13	70-130	20	
Dieldrin	0.05	0.05	0.040	0.042	ug/L	80	84	5	70-130	20	
Endosulfan I	0.05	0.05	0.038	0.042	ug/L	76	84	10	70-130	20	
Endosulfan II	0.05	0.05	0.037	0.041	ug/L	74	82	10	70-130	20	
Endosulfan sulfate	0.05	0.05	0.044	0.048	ug/L	88	96	9	70-130	20	
Endrin	0.05	0.05	0.042	0.045	ug/L	84	90	7	70-130	20	
Endrin aldehyde	0.05	0.05	0.038	0.042	ug/L	76	84	10	70-130	20	
Heptachlor	0.05	0.05	0.040	0.044	ug/L	80	88	10	70-130	20	
Heptachlor epoxide	0.05	0.05	0.039	0.043	ug/L	78	86	10	70-130	20	
Lindane (Gamma-BHC)	0.05	0.05	0.042	0.048	ug/L	84	96	13	70-130	20	
Methoxychlor	0.05	0.05	0.050	0.053	ug/L	100	106	6	70-130	20	

QCBatchID: QC1173835	Analyst: lucy	Method: EPA 8260B
Matrix: Water	Analyzed: 12/29/2016	Instrument: VOA-MS (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173835MB1					
1,1,1,2-Tetrachloroethane	ND	ug/L	0.25	5	
1,1,1-Trichloroethane	ND	ug/L	0.38	5	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.25	5	
1,1,2-Trichloroethane	ND	ug/L	0.25	5	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	0.29	5	
1,1-Dichloroethane	ND	ug/L	0.32	5	
1,1-Dichloroethene	ND	ug/L	0.3	5	
1,1-Dichloropropene	ND	ug/L	0.25	5	
1,2,3-Trichlorobenzene	ND	ug/L	0.28	5	
1,2,3-Trichloropropane	ND	ug/L	0.16	5	
1,2,4-Trichlorobenzene	ND	ug/L	0.27	5	
1,2,4-Trimethylbenzene	ND	ug/L	0.28	5	
1,2-Dibromo-3-chloropropane	ND	ug/L	0.12	5	
1,2-Dibromoethane	ND	ug/L	0.19	5	
1,2-Dichlorobenzene	ND	ug/L	0.26	5	
1,2-Dichloroethane	ND	ug/L	0.2	5	
1,2-Dichloropropane	ND	ug/L	0.36	5	
1,3,5-Trimethylbenzene	ND	ug/L	0.24	5	
1,3-Dichlorobenzene	ND	ug/L	0.34	5	
1,3-Dichloropropane	ND	ug/L	0.19	5	
1,4-Dichlorobenzene	ND	ug/L	0.43	5	
2,2-Dichloropropane	ND	ug/L	0.32	5	
2-Butanone (MEK)	ND	ug/L	0.78	100	
2-Chloroethyl Vinyl Ether	ND	ug/L	0.23	10	
2-Chlorotoluene	ND	ug/L	0.33	5	
4-Chlorotoluene	ND	ug/L	0.31	5	
4-Isopropyltoluene	ND	ug/L	0.32	5	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	0.12	5	
Acetone	ND	ug/L	10	100	
Allyl Chloride	ND	ug/L	0.19	5	
Benzene	ND	ug/L	0.18	1	
Bromobenzene	ND	ug/L	0.53	5	
Bromochloromethane	ND	ug/L	0.17	5	
Bromodichloromethane	ND	ug/L	0.31	5	
Bromoform	ND	ug/L	0.13	5	
Bromomethane	ND	ug/L	0.68	5	
Carbon Tetrachloride	ND	ug/L	0.27	5	
Chlorobenzene	ND	ug/L	0.19	5	
Chlorodibromomethane	ND	ug/L	0.21	5	
Chloroethane	ND	ug/L	0.45	5	
Chloroform	ND	ug/L	0.18	5	
Chloromethane	ND	ug/L	0.27	5	
cis-1,2-Dichloroethene	ND	ug/L	0.27	5	
cis-1,3-dichloropropene	ND	ug/L	0.25	5	
cis-1,4-dichloro-2-butene	ND	ug/L	0.17	5	
Dibromomethane	ND	ug/L	0.23	5	
Dichlorodifluoromethane	ND	ug/L	0.33	5	
Di-isopropyl ether (DIPE)	ND	ug/L	0.17	1	
Ethylbenzene	ND	ug/L	0.21	5	
Ethyl-tertbutylether (ETBE)	ND	ug/L	0.23	1	
Hexachlorobutadiene	ND	ug/L	0.51	5	

QCBatchID: QC1173835	Analyst: lucy	Method: EPA 8260B
Matrix: Water	Analyzed: 12/29/2016	Instrument: VOA-MS (group)

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173835MB1					
Isopropylbenzene	ND	ug/L	0.24	5	
m and p-Xylene	ND	ug/L	0.45	5	
Methylene chloride	ND	ug/L	0.16	5	
Methyl-t-butyl Ether (MTBE)	ND	ug/L	0.19	1	
Naphthalene	ND	ug/L	0.25	5	
N-butylbenzene	ND	ug/L	0.25	5	
N-propylbenzene	ND	ug/L	0.31	5	
o-Xylene	ND	ug/L	0.29	5	
Sec-butylbenzene	ND	ug/L	0.32	5	
Styrene	ND	ug/L	0.22	5	
t-Butyl alcohol (TBA)	ND	ug/L	5.2	10	
Tert-amylmethylether (TAME)	ND	ug/L	0.19	5	
Tert-butylbenzene	ND	ug/L	0.4	5	
Tetrachloroethene	ND	ug/L	0.8	5	
Toluene	ND	ug/L	0.24	5	
trans-1,2-dichloroethene	ND	ug/L	0.33	5	
trans-1,3-dichloropropene	ND	ug/L	0.23	5	
trans-1,4-dichloro-2-butene	ND	ug/L	0.17	5	
Trichloroethene	ND	ug/L	0.39	5	
Trichlorofluoromethane	ND	ug/L	0.25	5	
Vinyl Chloride	ND	ug/L	0.18	5	
Xylenes (Total)	ND	ug/L	0.45	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173835LCS1											
1,1-Dichloroethene	50		46		ug/L	92			59-172		
Benzene	50		49		ug/L	98			62-137		
Chlorobenzene	50		49		ug/L	98			60-133		
Methyl-t-butyl Ether (MTBE)	50		45		ug/L	90			62-137		
Toluene	50		49		ug/L	98			59-139		
Trichloroethene	50		50		ug/L	100			66-142		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173835MS1, QC1173835MSD1												**Source: 385825-107**
1,1-Dichloroethene	ND	50	50	41	43	ug/L	82	86	4.8	59-172	22	
Benzene	ND	50	50	47	51	ug/L	94	102	8.2	62-137	24	
Chlorobenzene	ND	50	50	49	52	ug/L	98	104	5.9	60-133	24	
Methyl-t-butyl Ether (MTBE)	ND	50	50	45	49	ug/L	90	98	8.5	62-137	21	
Toluene	0.25	50	50	48	51	ug/L	96	102	6.1	59-139	21	
Trichloroethene	ND	50	50	49	51	ug/L	98	102	4.0	66-142	21	

QCBatchID: QC1173862	Analyst: dswafford	Method: EPA 6020
Matrix: Solid	Analyzed: 12/30/2016	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173862MB1					
Arsenic	ND	mg/Kg	0.02	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173862LCS1											
Arsenic	50		55.6		mg/Kg	111			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173862MS1, QC1173862MSD1												**Source: 385825-004**
Arsenic	6.76	50	50	54.0	54.6	mg/Kg	94	96	1.1	75-125	20	

QCBatchID: QC1173872	Analyst: lytagas	Method: EPA 8015B
Matrix: Solid	Analyzed: 12/30/2016	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173872MB1					
TPH Diesel	ND	mg/Kg	0.4	1	
TPH Motor Oil	ND	mg/Kg	2.1	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1173872LCS1, QC1173872LCSD1											
TPH Diesel	25	25	24.3	27.9	mg/Kg	97	112	14	70-130	20	

QCBatchID: QC1173955	Analyst: JParedes	Method: EPA 7471A
Matrix: Solid	Analyzed: 01/03/2017	Instrument: AAICP-HG1

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173955MB1					
Mercury	ND	mg/Kg	0.02	0.14	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173955LCS1											
Mercury	0.83		0.84		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1173955MS1, QC1173955MSD1												**Source: 385948-001**
Mercury	ND	0.83	0.83	0.04	0.03	mg/Kg	5	4	28.6	75-125	20	M

QCBatchID: QC1173984	Analyst: lwong	Method: EPA 8082
Matrix: Water	Analyzed: 01/02/2017	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1173984MB1					
PCB-1016	ND	ug/L	0.13	0.5	
PCB-1221	ND	ug/L	0.24	0.5	
PCB-1232	ND	ug/L	0.12	0.5	
PCB-1242	ND	ug/L	0.071	0.5	
PCB-1248	ND	ug/L	0.12	0.5	
PCB-1254	ND	ug/L	0.084	0.5	
PCB-1260	ND	ug/L	0.082	0.5	
PCB-1262	ND	ug/L	0.083	0.5	
PCB-1268	ND	ug/L	0.039	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1173984LCS1, QC1173984LCSD1											
PCB-1016	0.5	0.5	0.42	0.40	ug/L	84	80	5	70-130	20	
PCB-1260	0.5	0.5	0.42	0.38	ug/L	84	76	10	70-130	20	

QCBatchID: QC1174000	Analyst: lytagas	Method: EPA 8015B
Matrix: Water	Analyzed: 01/04/2017	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174000MB1					
TPH Diesel	**0.45**	mg/L	0.04	0.1	B
TPH Motor Oil	**0.26 J**	mg/L	0.07	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1174000LCS1, QC1174000LCSD1											
TPH Diesel	1	1	1.1	1.2	mg/L	110	120	9	70-130	20	

QCBatchID:	QC1174165	Analyst:	kedy	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/09/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174165MB1					
Chromium	ND	mg/L	0.006	0.03	
Lead	ND	mg/L	0.012	0.015	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174165MS1, QC1174165MSD1												**Source: 385727-001**
Chromium	ND	10	10	9.75	10.0	mg/L	97	100	2.5	75-125	20	
Lead	ND	10	10	9.36	9.47	mg/L	93	94	1.2	75-125	20	

QCBatchID:	QC1174191	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/10/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174191MB1					
Lead	ND	mg/L	0.004	0.05	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174191LCS1											
Lead	2		2.06		mg/L	103			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174191MS1, QC1174191MSD1												**Source: 386062-002**
Lead	ND	1	1	0.955	0.941	mg/L	96	95	1.5	75-125	20	

QCBatchID:	QC1174225	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/11/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174225MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174225LCS1											
Lead	100		108		mg/Kg	108			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174225MS1, QC1174225MSD1												**Source: 384618-005**
Lead	14.7	100	100	110	114	mg/Kg	95	99	3.6	75-125	20	

QCBatchID: QC1174444	Analyst: jeannynguye	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/18/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174444MB1					
Antimony	**0.51 J**	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174444LCS1											
Antimony	100		107		mg/Kg	107			80-120		
Arsenic	100		91.7		mg/Kg	92			80-120		
Barium	100		104		mg/Kg	104			80-120		
Beryllium	100		95.7		mg/Kg	96			80-120		
Cadmium	100		101		mg/Kg	101			80-120		
Chromium	100		98.9		mg/Kg	99			80-120		
Cobalt	100		101		mg/Kg	101			80-120		
Copper	100		92.9		mg/Kg	93			80-120		
Lead	100		98.7		mg/Kg	99			80-120		
Molybdenum	100		100		mg/Kg	100			80-120		
Nickel	100		101		mg/Kg	101			80-120		
Selenium	100		86.6		mg/Kg	87			80-120		
Silver	100		92.0		mg/Kg	92			80-120		
Thallium	100		100		mg/Kg	100			80-120		
Vanadium	100		97.9		mg/Kg	98			80-120		
Zinc	100		98.2		mg/Kg	98			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174444MS1, QC1174444MSD1												**Source: 386559-001**
Antimony	0.42	100	100	115	104	mg/Kg	115	104	10.0	75-125	20	
Arsenic	ND	100	100	109	103	mg/Kg	109	103	5.7	75-125	20	
Barium	2.66	100	100	114	111	mg/Kg	111	108	2.7	75-125	20	
Beryllium	ND	100	100	117	106	mg/Kg	117	106	9.9	75-125	20	
Cadmium	ND	100	100	118	113	mg/Kg	118	113	4.3	75-125	20	
Chromium	0.42	100	100	110	110	mg/Kg	110	110	0.0	75-125	20	
Cobalt	ND	100	100	113	115	mg/Kg	113	115	1.8	75-125	20	
Copper	2.48	100	100	111	109	mg/Kg	109	107	1.8	75-125	20	
Lead	ND	100	100	111	108	mg/Kg	111	108	2.7	75-125	20	

QCBatchID: QC1174444	Analyst: jeannynguye	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/18/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174444MS1, QC1174444MSD1												**Source: 386559-001**
Molybdenum	0.15	100	100	112	108	mg/Kg	112	108	3.6	75-125	20	
Nickel	0.30	100	100	115	117	mg/Kg	115	117	1.7	75-125	20	
Selenium	1.73	100	100	111	103	mg/Kg	109	101	7.5	75-125	20	
Silver	ND	100	100	100	95.7	mg/Kg	100	96	4.4	75-125	20	
Thallium	ND	100	100	108	108	mg/Kg	108	108	0.0	75-125	20	
Vanadium	0.47	100	100	112	110	mg/Kg	112	110	1.8	75-125	20	
Zinc	6.94	100	100	121	117	mg/Kg	114	110	3.4	75-125	20	

QCBatchID:	QC1174723	Analyst:	jeannynguye	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/25/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174723MB1					
Lead	ND	mg/L	0.012	0.015	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174723MS1, QC1174723MSD1												**Source: 385825-017**
Lead	2.88	10	10	10.8	11.2	mg/L	79	83	3.6	75-125	20	

QCBatchID: QC1174909	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 02/01/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174909MB1					
Chromium	**0.021 J**	mg/L	0.006	0.03	
Lead	ND	mg/L	0.012	0.015	
Nickel	**0.016 J**	mg/L	0.003	0.06	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174909MS1, QC1174909MSD1												**Source: 386813-002**
Chromium	0.972	10	10	10.4	9.65	mg/L	94	87	7.5	75-125	20	
Lead	ND	10	10	8.74	8.43	mg/L	87	84	3.6	75-125	20	
Nickel	0.734	10	10	9.98	9.34	mg/L	92	86	6.6	75-125	20	

QCBatchID: QC1175179	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 02/08/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175179MB1					
Cadmium	ND	mg/L	0.001	0.05	
Chromium	ND	mg/L	0.002	0.05	
Lead	ND	mg/L	0.004	0.05	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175179LCS1											
Cadmium	2		2.36		mg/L	118			80-120		
Chromium	2		2.25		mg/L	113			80-120		
Lead	2		1.852		mg/L	93			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175179MS1, QC1175179MSD1												**Source: 386055-001**
Cadmium	0.010	1	1	1.088	1.087	mg/L	108	108	0.1	75-125	20	
Chromium	ND	1	1	1.114	1.105	mg/L	111	111	0.8	75-125	20	
Lead	ND	1	1	0.806	0.854	mg/L	81	85	5.8	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 1 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S4-0.5'	12/23/16	8:55 AM	S	1/8oz				x								Analyze 0.5' samples. Hold deeper samples.
2	S4-1.5'	12/23/16	9:00 AM	S	1/8oz												
3	S4-2.5'	12/23/16	9:05 AM	S	1/8oz												
4	S5-0.5'	12/23/16	8:00 AM	S	1/8oz		x	x	x								
5	S5-1.5'	12/23/16	8:05 AM	S	1/8oz												
6	S5-2.5'	12/23/16	8:10 AM	S	1/8oz												
7	S6-0.5'	12/23/16	7:45 AM	S	1/8oz		x		x								
8	S6-1.5'	12/23/16	7:50 AM	S	1/8oz												
9	S6-2.5'	12/23/16	7:55 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID DADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 2 of 12	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S7-0.5'	12/23/16	7:40 AM	S	1/8oz		x	x	x								Analyze 0.5' samples. Hold deeper samples.
2	S7-1.5'	12/23/16	7:55 AM	S	1/8oz												
3	S7-2.5'	12/23/16	8:00 AM	S	1/8oz												
4	S8-0.5'	12/23/16	8:20 AM	S	1/8oz		x		x								
5	S8-1.5'	12/23/16	8:25 AM	S	1/8oz												
6	S8-2.5'	12/23/16	8:30 AM	S	1/8oz												
7	S9-0.5'	12/23/16	9:00 AM	S	1/8oz		x	x	x								
8	S9-1.5'	12/23/16	9:05 AM	S	1/8oz												
9	S9-2.5'	12/23/16	9:10 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 3 of 12	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S10-0.5'	12/23/16	8:10 AM	S	1/8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S10-1.5'	12/23/16	8:15 AM	S	1/8oz												
3	S10-2.5'	12/23/16	8:20 AM	S	1/8oz												
4	S11-0.5'	12/23/16	1:40 PM	S	1/8oz		x	x	x								
5	S11-1.5'	12/23/16	1:45 PM	S	1/8oz												
6	S11-2.5'	12/23/16	1:50 PM	S	1/8oz												
7	S12-0.5'	12/23/16	1:55 PM	S	1/8oz		x		x								
8	S12-1.5'	12/23/16	2:00 PM	S	1/8oz												
9	S12-2.5'	12/23/16	2:05 PM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAIN PADILLA	EA	12/24/16 1040.
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 4 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S13-0.5'	12/23/16	3:40 PM	S	1/8oz		x	x	x								Analyze 0.5' samples. Hold deeper samples.
2	S13-1.5'	12/23/16	3:45 PM	S	1/8oz												
3	S13-2.5'	12/23/16	3:50 PM	S	1/8oz												
4	S14-0.5'	12/23/16	2:25 PM	S	1/8oz		x		x								
5	S14-1.5'	12/23/16	2:30 PM	S	1/8oz												
6	S14-2.5'	12/23/16	2:35 PM	S	1/8oz												
7	S15-0.5'	12/23/16	8:45 AM	S	1/8oz		x	x	x								
8	S15-1.5'	12/23/16	8:50 AM	S	1/8oz												
9	S15-2.5'	12/23/16	8:55 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	D Baysa	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:		ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 5 of 12	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S16-0.5'	12/22/16	4:20 PM	S	1/8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S16-1.5'	12/22/16	4:25 PM	S	1/8oz												
3	S16-2.5'	12/22/16	4:30 PM	S	1/8oz												
4	S17-0.5'	12/23/16	9:30 AM	S	1/8oz		x	x	x								
5	S17-1.5'	12/23/16	9:40 AM	S	1/8oz												
6	S17-2.5'	12/23/16	9:45 AM	S	1/8oz												
7	S18-0.5'	12/22/16	4:10 PM	S	1/8oz		x		x								
8	S18-1.5'	12/22/16	4:15 PM	S	1/8oz												
9	S18-2.5'	12/22/16	4:20 PM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 6 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request

Test Instructions / Comments: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				
1	S19-0.5'	12/22/16	3:00 PM	S	1/8oz		x	x	x								
2	S19-1.5'	12/22/16	3:20 PM	S	1/8oz												
3	S19-2.5'	12/22/16	3:25 PM	S	1/8oz												
4	S20-0.5'	12/23/16	9:30 AM	S	1/8oz		x		x								
5	S20-1.5'	12/23/16	9:40 AM	S	1/8oz												
6	S20-2.5'	12/23/16	9:45 AM	S	1/8oz												
7	S21-0.5'	12/22/16	3:55 PM	S	1/8oz		x	x	x								
8	S21-1.5'	12/22/16	4:00 PM	S	1/8oz												
9	S21-2.5'	12/22/16	4:05 PM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:		ZAN PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 7 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request

Test Instructions / Comments: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				
1	S22-0.5'	12/23/16	9:40 AM	S	1/8oz		x		x								
2	S22-1.5'	12/23/16	9:45 AM	S	1/8oz												
3	S22-2.5'	12/23/16	9:50 AM	S	1/8oz												
4	S23-0.5'	12/23/16	9:50 AM	S	1/8oz		x	x	x								
5	S23-1.5'	12/23/16	9:55 AM	S	1/8oz												
6	S23-2.5'	12/23/16	10:00 AM	S	1/8oz												
7	S24-0.5'	12/23/16	10:05 AM	S	1/8oz		x		x								
8	S24-1.5'	12/23/16	10:10 AM	S	1/8oz												
9	S24-2.5'	12/23/16	10:18 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 8 of 12	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

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Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request

Test Instructions / Comments: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				
1	S25-0.5'	12/23/16	10:45 AM	S	1/8oz		x	x	x								
2	S25-1.5'	12/23/16	10:50 AM	S	1/8oz												
3	S25-2.5'	12/23/16	10:55 AM	S	1/8oz												
4	S26-0.5'	12/23/16	10:40 AM	S	1/8oz		x		x								
5	S26-1.5'	12/23/16	10:45 AM	S	1/8oz												
6	S26-2.5'	12/23/16	10:50 AM	S	1/8oz												
7	S27-0.5'	12/23/16	10:50 AM	S	1/8oz		x	x	x								
8	S27-1.5'	12/23/16	10:55 AM	S	1/8oz												
9	S27-2.5'	12/23/16	11:00 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	DBaysa	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:		ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 9 of 12	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S28-0.5'	12/23/16	10:30 AM	S	1/8oz		x		x								Analyze 0.5' samples. Hold deeper samples.
2	S28-1.5'	12/23/16	10:35 AM	S	1/8oz												
3	S28-2.5'	12/23/16	10:40 AM	S	1/8oz												
4	S29-0.5'	12/23/16	10:05 AM	S	1/8oz		x	x	x								
5	S29-1.5'	12/23/16	10:10 AM	S	1/8oz												
6	S29-2.5'	12/23/16	10:15 AM	S	1/8oz												
7	S30-0.5'	12/23/16	10:35 AM	S	1/8oz		x		x								
8	S30-1.5'	12/23/16	10:40 AM	S	1/8oz												
9	S30-2.5'	12/23/16	10:45 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
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ENTHALPY analytical, inc.

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Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
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	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S31-0.5'	12/23/16	9:50 AM	S	1/8oz		x	x	x								Analyze 0.5' samples. Hold deeper samples.
2	S31-1.5'	12/23/16	9:55 AM	S	1/8oz												
3	S31-2.5'	12/23/16	10:00 AM	S	1/8oz												
4	S32-0.5'	12/23/16	10:20 AM	S	1/8oz		x		x								
5	S32-1.5'	12/23/16	10:25 AM	S	1/8oz												
6	S32-2.5'	12/23/16	10:30 AM	S	1/8oz												
7	S33-0.5'	12/23/16	10:25 AM	S	1/8oz		x	x	x								
8	S33-1.5'	12/23/16	10:30 AM	S	1/8oz												
9	S33-2.5'	12/23/16	10:35 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 11 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

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Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	18605 Erwin St.
	Temecula, CA 92592		Tarzana, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request / **Test Instructions / Comments**: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S52-0.5'	12/23/16	11:05 AM	S	1/8oz		x		x								
2	S52-1.5'	12/23/16	11:08 AM	S	1/8oz												
3	S52-2.5'	12/23/16	11:15 AM	S	1/8oz												
4	S55-0.5'	12/23/16	11:10 AM	S	1/8oz		x	x	x								
5	S55-1.5'	12/23/16	11:15 AM	S	1/8oz												
6	S55-2.5'	12/23/16	11:20 AM	S	1/8oz												
7	S65-0.5'	12/23/16	8:40 AM	S	1/8oz		x	x	x								
8	S65-1.5'	12/23/16	8:45 AM	S	1/8oz												
9	S65-2.5'	12/23/16	8:49 AM	S	1/8oz												
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 12 of 12	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

Analysis Request

Test Instructions / Comments: Analyze 0.5' samples. Hold deeper samples.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			
1	S66-0.5'	12/23/16	8:25 AM	S	1/8oz		x		x							
2	S66-1.5'	12/23/16	8:30 AM	S	1/8oz											
3	S66-2.5'	12/23/16	8:34 AM	S	1/8oz											
4	S7D-0.5'	12/23/16	7:45 AM	S	1/8oz		x	x	x							
5	S17D-0.5'	12/23/16	9:35 AM	S	1/8oz		x	x	x							
6	S20D-0.5'	12/23/16	9:35 AM	S	1/8oz		x		x							
7	Soil Drums	12/23/16	2:30 PM	S	1/8oz				x	x	x	x	x			
8	Drum Water	12/23/16	2:20 PM	W	4/VOAs, 1L				x	x	x	x				
9																
10																

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAID PADILLA	EA	12/24/16 1040.
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.

806 N. Batavia St., Orange, CA 92868

Phone: (714) 771-6900 Fax: (714)771-9933

Billing: Enthalpy - SoCal
c/o Montrose Environmental Group
1 Park Plaza, Suite 1000, Irvine, CA 92614

ENTHALPY analytical, inc.

Chain of Custody Record

Lab No: 385825

Page: 1 of 3

Turn Around Time (Rush by advanced notice only)

Standard:	x	4 Day:		3 Day:	
2 Day:		1 Day:		Same Day:	

Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION

Company:	CES Group
Report To:	Skye Green
Email:	sgreen@cesgroup.co
Address:	33353 Temecula Pkwy , Suite 104#333
	Temecula, CA 92592
Phone:	714-398-6363
Fax:	951-848-9812

PROJECT INFORMATION

Name:	Grant HS
Number:	
P.O. #:	27016
Address:	13000 Oxnard St.
	Los Angeles, CA 91335
Global ID:	
Sampled By:	D. Baysa

Analysis Request / **Test Instructions / Comments**

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S1/SG1-2.5'	12/22/16	12:25 PM	S	6/VOA, Sleeve					x	x						
2	S1/SG1-5'	12/22/16	12:30 PM	S	6/VOA, Sleeve					x	x						
3	S1/SG1-10'	12/22/16	12:35 PM	S	6/VOA, Sleeve					x	x						
4	S2/SG2-5'	12/22/16	1:35 PM	S	6/VOA, Sleeve						x		x				
5	S2/SG2-10'	12/22/16	1:40 PM	S	6/VOA, Sleeve						x		x				
6	S3/SG3-5'	12/22/16	2:35 PM	S	6/VOA, Sleeve						x		x				
7	S3/SG3-10'	12/22/16	2:40 PM	S	6/VOA, Sleeve						x		x				
8	S50/SG4-5'	12/22/16	11:05 AM	S	6/VOA, Sleeve					x	x	x	x				
9	S50/SG4-10'	12/22/16	11:10 AM	S	6/VOA, Sleeve					x	x	x	x				
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	D Baysa	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[illegible]	ZAIN PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 2 of 3	Standard: x 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S59-5'	12/22/16	9:10 AM	S	6/VOA, Sleeve					x		x	x				
2	S59-10'	12/22/16	9:15 AM	S	6/VOA, Sleeve					x		x	x				
3	S60-5'	12/22/16	9:30 AM	S	6/VOA, Sleeve					x		x	x				
4	S60-10'	12/22/16	9:35 AM	S	6/VOA, Sleeve					x		x	x				
5	S61-5'	12/22/16	8:50 AM	S	6/VOA, Sleeve					x		x	x				
6	S61-10'	12/22/16	9:00 AM	S	6/VOA, Sleeve					x		x	x				
7	S62-5'	12/22/16	8:20 AM	S	6/VOA, Sleeve					x		x	x				
8	S62-10'	12/22/16	8:30 AM	S	6/VOA, Sleeve					x		x	x				
9	S63-5'	12/22/16	10:35 AM	S	6/VOA, Sleeve					x		x	x				
10	S63-10'	12/22/16	10:40 AM	S	6/VOA, Sleeve					x		x	x				

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:		Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:		ZAIN PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 385825 Page: 3 of 3	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S64-5'	12/22/16	10:15 AM	S	6/VOA, Sleeve					x		x	x				
2	S64-10'	12/22/16	10:25 AM	S	6/VOA, Sleeve					x		x	x				
3				S													
4				S													
5				S													
6				S													
7				S													
8				S													
9				S													
10				S													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	12/24/16 1040
1 Received By:	[signature]	ZAIDI PADILLA	EA	12/24/16 1040
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY analytical, inc

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES GROUP Project: GRANT HS

Date Received: 12/24/16 Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? (Yes) How many? 3 No (skip section 2) Sample Temp (°C): _____

Sample Temp (°C) from each cooler: #1: 1.7°C #2: 3.4°C #3: 1.3°C #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ✓ Ice ____ Ice Packs ____ Bubble Wrap ____ Styrofoam ____ Paper ____ None ____ Other _____

Cooler Temp (°C): #1: 0.1°C #2: 1.2°C #3: 0.8°C #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?		✓	
Were the containers labeled with correct preservatives?	✓		

Section 4

Explanations/Comments: RECEIVED 1 AMBER FOR 'DRUM WATER' SAMPLE.

Section 5

For discrepancies, how was the Project Manager notified? (Verbal) Email PM Initials: W.Y. Date/Time 12/24/16 (email sent to/on): _____ / _____

Project Manager's response: _____

Completed By: _____ Date: 12/24/16

ENTHALPHY ANALYTICAL, INC.		Chain of Custody Record	Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave, Orange, CA 92868	ENTHALPY analytical, inc.	Lab No:	Standard:	✓	4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714)771-9933		Page: 1 of 1	2 Day:		1 Day:		Same Day:	
Billing: Enthalpy - SoCal		**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					
c/o Montrose Environmental Group								
1 Park Plaza, Suite 1000, Irvine, CA 92614								

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES GROUP	Name:	GRANT H.S.
Report To:		Number:	
Email:		P.O. #:	27016
Address:		Address:	13600 Oxnard
			L.A.
Phone:		Global ID:	
Fax:		Sampled By:	DBaysa

Analysis Request: 8015 - CC, D, M.O.

Test Instructions / Comments: Add to 385825-129

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	8015 - CC, D, M.O.										Test Instructions / Comments
1	DRUM WATER	122916	1230	W	3/1L/POLY		✓										
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	DBaysa	DANNY BAYSA	CES / FLD SUPV	12/30/16 1130
1 Received By:	[signature]	Fernando Castenda	EA	12/30/16 @1120
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: ~~Grant HS~~ CES Group FC Project: Grant H.S

Date Received: 12/30/16 FC Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? (Yes) How many? 2 No (skip section 2) Sample Temp (°C):_____

Sample Temp (°C) from each cooler: #1: 10.9 #2: 15.0 #3:_____ #4:_____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information:_____

Section 2

Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other_____

Cooler Temp (°C): #1: 3.7 #2: 3.6 #3:_____ #4:_____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?		✓	
Were the containers labeled with correct preservatives?			✓ FC

Section 4

Explanations/Comments:_____

Section 5

For discrepancies, how was the Project Manager notified? Verbal PM Initials:_____ Date/Time_____

Email (email sent to/on):_____ / _____

Project Manager's response:

Completed By: [signature] Date: 12/30/16

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, January 06, 2017 12:57 PM
To: Ranjit Clarke; 'Danny Baysa'
Subject: RE: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825

Ranjit,
Please run S8-0.5' and S9-0.5' for STLC and deeper samples for lead (S8-1.5' and S9-1.5'). Normal turn around time.
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, January 5, 2017 4:29 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825

Hi Skye Green,

Attached is your final report #385825.

Please let me know if you require STLC and/or TCLP Lead on the following samples:

S8-0.5' and S9-0.5'

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, January 06, 2017 1:29 PM
To: Ranjit Clarke
Subject: RE: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825

Please add the TCLP analysis for S8-0.5' and S9-0.5' also.
Thanks,

Skye Green, **P.E.**
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Friday, January 6, 2017 12:58 PM
To: Skye Green <sgreen@cesgroup.co>; 'Danny Baysa' <dbaysa@cesgroup.co>
Subject: RE: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825

Will do.

Ranjit Clarke
Senior Project Manager
O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209
Ranjit.Clarke@enthalpy.com

From: Skye Green [mailto:sgreen@cesgroup.co]
Sent: Friday, January 06, 2017 12:57 PM
To: Ranjit Clarke <Ranjit.Clarke@enthalpy.com>; 'Danny Baysa' <dbaysa@cesgroup.co>
Subject: RE: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825

Ranjit,
Please run S8-0.5' and S9-0.5' for STLC and deeper samples for lead (S8-1.5' and S9-1.5'). Normal turn around time.
Thanks,

Skye Green, **P.E.**

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, January 20, 2017 8:52 AM
To: Ranjit Clarke
Subject: Grant HS Lead results

Ranjit,
For Grant HS, can you run S9-1.5' for lead STLC and run S9-2.5' for lead?
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, January 27, 2017 9:37 AM
To: Ranjit Clarke
Subject: RE: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825 - Supplemental Report 2

Thank you. Can you run the STLC on sample S9-2.5' for Grant HS?

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, January 26, 2017 5:22 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Grant HS (12/23/16) - Enthalpy Analytical Final Report #385825 - Supplemental Report 2

Hi Skye Green,

Attached is your final report #385825. Supplemental Report 2.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Thursday, February 02, 2017 5:26 PM
To: Ranjit Clarke
Subject: RE: Enthalpy Analytical Final Report #385825

Ranjit,
For the Grant site, please run S9-2.5' for TCLP. Normal TAT is fine.
Thank you,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, February 2, 2017 5:14 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Enthalpy Analytical Final Report #385825

Hi Skye Green,

Attached is your final report #385825.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	386689
Address:	33353 Temecula Pkwy.	Report Date:	02/07/2017
	Suite 104 #333	Date Received:	01/18/2017
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

Supplemental Report 2

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
386689-001	S67-0.5'
386689-002	S67-1.5'
386689-003	S67-2.5'
386689-004	S68-0.5'
386689-005	S68-1.5'
386689-006	S68-2.5'
386689-007	S69-0.5'
386689-008	S69-1.5'
386689-009	S69-2.5'
386689-010	S70-0.5'
386689-011	S70-1.5'
386689-012	S70-2.5'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 13:45	**Site:**			
Sample #:	**386689-001**	**Client Sample #:**	S67-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174600		
Lead	**50.2**	1	0.32	0.5	mg/Kg	01/24/17	01/24/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174909		
Lead	**3.02**	10	0.12	0.15	mg/L	02/01/17	02/01/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174601		
Arsenic	**5.04**	10	0.2	3	mg/Kg	01/24/17	01/25/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1174505		
4,4'-DDD	**8.5**	1	0.67	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDE	**15**	1	0.57	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDT	**79**	1	0.95	5	ug/Kg	01/20/17	01/23/17	LW	
a-BHC	ND	1	0.2	5	ug/Kg	01/20/17	01/23/17	LW	
Aldrin	ND	1	0.34	5	ug/Kg	01/20/17	01/23/17	LW	
b-BHC	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Chlordane (technical)	**150**	1	12	50	ug/Kg	01/20/17	01/23/17	LW	
d-BHC	ND	1	0.45	5	ug/Kg	01/20/17	01/23/17	LW	
Dieldrin	ND	1	0.63	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan I	ND	1	0.28	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan II	ND	1	0.8	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan sulfate	ND	1	1.7	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin	ND	1	0.62	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin aldehyde	ND	1	0.9	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin Ketone	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor	ND	1	0.44	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor epoxide	ND	1	0.27	5	ug/Kg	01/20/17	01/23/17	LW	
Lindane (Gamma-BHC)	ND	1	0.3	5	ug/Kg	01/20/17	01/23/17	LW	
Methoxychlor	ND	1	5.2	10	ug/Kg	01/20/17	01/23/17	LW	
Toxaphene	ND	1	12	100	ug/Kg	01/20/17	01/23/17	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*112*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*107*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 13:50	**Site:**			
Sample #:	**386689-002**	**Client Sample #:**	S67-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174765		
Lead	**39.1**	1	0.32	0.5	mg/Kg	01/27/17	01/30/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 13:55	**Site:**			
Sample #:	**386689-003**	**Client Sample #:**	S67-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 01/16/2017 14:00 **Site:**
Sample #: **386689-004** **Client Sample #:** S68-0.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID: QC1174876		
Lead	**0.061**	1	0.004	0.05	mg/L	01/31/17	02/01/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174600		
Lead	**126**	1	0.32	0.5	mg/Kg	01/24/17	01/24/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174909		
Lead	**7.44**	10	0.12	0.15	mg/L	02/01/17	02/01/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174601		
Arsenic	**5.79**	10	0.2	3	mg/Kg	01/24/17	01/25/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1174505		
4,4'-DDD	ND	1	0.67	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDE	**39**	1	0.57	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDT	**28**	1	0.95	5	ug/Kg	01/20/17	01/23/17	LW	
a-BHC	ND	1	0.2	5	ug/Kg	01/20/17	01/23/17	LW	
Aldrin	ND	1	0.34	5	ug/Kg	01/20/17	01/23/17	LW	
b-BHC	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Chlordane (technical)	**270**	1	12	50	ug/Kg	01/20/17	01/23/17	LW	
d-BHC	ND	1	0.45	5	ug/Kg	01/20/17	01/23/17	LW	
Dieldrin	**20**	1	0.63	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan I	ND	1	0.28	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan II	ND	1	0.8	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan sulfate	ND	1	1.7	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin	ND	1	0.62	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin aldehyde	ND	1	0.9	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin Ketone	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor	ND	1	0.44	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor epoxide	**6.5**	1	0.27	5	ug/Kg	01/20/17	01/23/17	LW	
Lindane (Gamma-BHC)	ND	1	0.3	5	ug/Kg	01/20/17	01/23/17	LW	
Methoxychlor	ND	1	5.2	10	ug/Kg	01/20/17	01/23/17	LW	
Toxaphene	ND	1	12	100	ug/Kg	01/20/17	01/23/17	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*116*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*104*	*50-150*	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 01/16/2017 14:05 **Site:**
Sample #: **386689-005** **Client Sample #:** S68-1.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174765		
Lead	**10.9**	1	0.32	0.5	mg/Kg	01/27/17	01/30/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 01/16/2017 14:10 **Site:**
Sample #: **386689-006** **Client Sample #:** S68-2.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:05	**Site:**			
Sample #:	**386689-007**	**Client Sample #:**	S69-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174600		
Lead	**54.4**	1	0.32	0.5	mg/Kg	01/24/17	01/24/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1174909		
Lead	**2.97**	10	0.12	0.15	mg/L	02/01/17	02/01/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174601		
Arsenic	**20.0**	10	0.2	3	mg/Kg	01/24/17	01/25/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1174505		
4,4'-DDD	ND	1	0.67	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDE	**19**	1	0.57	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDT	**6.4**	1	0.95	5	ug/Kg	01/20/17	01/23/17	LW	
a-BHC	ND	1	0.2	5	ug/Kg	01/20/17	01/23/17	LW	
Aldrin	ND	1	0.34	5	ug/Kg	01/20/17	01/23/17	LW	
b-BHC	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Chlordane (technical)	ND	1	12	50	ug/Kg	01/20/17	01/23/17	LW	
d-BHC	ND	1	0.45	5	ug/Kg	01/20/17	01/23/17	LW	
Dieldrin	**2.9 J**	1	0.63	5	ug/Kg	01/20/17	01/23/17	LW	J
Endosulfan I	ND	1	0.28	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan II	ND	1	0.8	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan sulfate	ND	1	1.7	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin	ND	1	0.62	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin aldehyde	ND	1	0.9	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin Ketone	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor	ND	1	0.44	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor epoxide	ND	1	0.27	5	ug/Kg	01/20/17	01/23/17	LW	
Lindane (Gamma-BHC)	ND	1	0.3	5	ug/Kg	01/20/17	01/23/17	LW	
Methoxychlor	ND	1	5.2	10	ug/Kg	01/20/17	01/23/17	LW	
Toxaphene	ND	1	12	100	ug/Kg	01/20/17	01/23/17	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*98*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*104*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:10	**Site:**			
Sample #:	**386689-008**	**Client Sample #:**	S69-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174765		
Lead	**27.5**	1	0.32	0.5	mg/Kg	01/27/17	01/30/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174829		
Arsenic	**12.8**	10	0.2	3	mg/Kg	01/30/17	02/01/17	KLN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:15	**Site:**			
Sample #:	**386689-009**	**Client Sample #:**	S69-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175022		
Arsenic	**22.9**	10	0.2	3	mg/Kg	02/03/17	02/03/17	KLN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:15	**Site:**			
Sample #:	**386689-010**	**Client Sample #:**	S70-0.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174600		
Lead	**22.0**	1	0.32	0.5	mg/Kg	01/24/17	01/24/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1174601		
Arsenic	**5.06**	10	0.2	3	mg/Kg	01/24/17	01/25/17	KLN	
Method: EPA 8081A *NELAC*	Prep Method: EPA 3545						QCBatchID: QC1174505		
4,4'-DDD	**16**	1	0.67	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDE	**10**	1	0.57	5	ug/Kg	01/20/17	01/23/17	LW	
4,4'-DDT	**4.1 J**	1	0.95	5	ug/Kg	01/20/17	01/23/17	LW	J
a-BHC	ND	1	0.2	5	ug/Kg	01/20/17	01/23/17	LW	
Aldrin	ND	1	0.34	5	ug/Kg	01/20/17	01/23/17	LW	
b-BHC	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Chlordane (technical)	**93**	1	12	50	ug/Kg	01/20/17	01/23/17	LW	
d-BHC	ND	1	0.45	5	ug/Kg	01/20/17	01/23/17	LW	
Dieldrin	ND	1	0.63	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan I	ND	1	0.28	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan II	ND	1	0.8	5	ug/Kg	01/20/17	01/23/17	LW	
Endosulfan sulfate	ND	1	1.7	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin	ND	1	0.62	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin aldehyde	ND	1	0.9	5	ug/Kg	01/20/17	01/23/17	LW	
Endrin Ketone	ND	1	1.2	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor	ND	1	0.44	5	ug/Kg	01/20/17	01/23/17	LW	
Heptachlor epoxide	ND	1	0.27	5	ug/Kg	01/20/17	01/23/17	LW	
Lindane (Gamma-BHC)	ND	1	0.3	5	ug/Kg	01/20/17	01/23/17	LW	
Methoxychlor	ND	1	5.2	10	ug/Kg	01/20/17	01/23/17	LW	
Toxaphene	ND	1	12	100	ug/Kg	01/20/17	01/23/17	LW	

Surrogate	*% Recovery*	*Limits*	*Notes*
Decachlorobiphenyl DCB (SUR)	*78*	*50-150*	
Tetrachloro-m-xylene TCMX (SUR)	*91*	*50-150*	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:20	**Site:**			
Sample #:	**386689-011**	**Client Sample #:**	S70-1.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	01/16/2017 14:25	**Site:**			
Sample #:	**386689-012**	**Client Sample #:**	S70-2.5'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

QCBatchID: QC1174505	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 01/20/2017	Instrument: SVOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174505MB1					
4,4'-DDD	ND	ug/Kg	0.67	5	
4,4'-DDE	ND	ug/Kg	0.57	5	
4,4'-DDT	ND	ug/Kg	0.95	5	
a-BHC	ND	ug/Kg	0.2	5	
Aldrin	ND	ug/Kg	0.34	5	
b-BHC	ND	ug/Kg	1.2	5	
Chlordane (technical)	ND	ug/Kg	12	50	
d-BHC	ND	ug/Kg	0.45	5	
Dieldrin	ND	ug/Kg	0.63	5	
Endosulfan I	ND	ug/Kg	0.28	5	
Endosulfan II	ND	ug/Kg	0.8	5	
Endosulfan sulfate	ND	ug/Kg	1.7	5	
Endrin	ND	ug/Kg	0.62	5	
Endrin aldehyde	ND	ug/Kg	0.9	5	
Endrin Ketone	ND	ug/Kg	1.2	5	
Heptachlor	ND	ug/Kg	0.44	5	
Heptachlor epoxide	ND	ug/Kg	0.27	5	
Lindane (Gamma-BHC)	ND	ug/Kg	0.3	5	
Methoxychlor	ND	ug/Kg	5.2	10	
Toxaphene	ND	ug/Kg	12	100	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174505LCS1											
4,4'-DDE	50		58		ug/Kg	116			70-130		
4,4'-DDT	50		54		ug/Kg	108			70-130		
a-BHC	50		58		ug/Kg	116			70-130		
Aldrin	50		57		ug/Kg	114			70-130		
b-BHC	50		52		ug/Kg	104			70-130		
d-BHC	50		58		ug/Kg	116			70-130		
Dieldrin	50		56		ug/Kg	112			70-130		
Endosulfan I	50		52		ug/Kg	104			70-130		
Endosulfan II	50		44		ug/Kg	88			70-130		
Endosulfan sulfate	50		60		ug/Kg	120			70-130		
Endrin	50		57		ug/Kg	114			70-130		
Endrin aldehyde	50		50		ug/Kg	100			70-130		
Heptachlor	50		53		ug/Kg	106			70-130		
Heptachlor epoxide	50		56		ug/Kg	112			70-130		
Lindane (Gamma-BHC)	50		56		ug/Kg	112			70-130		
Methoxychlor	50		58		ug/Kg	116			70-130		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174505MS1, QC1174505MSD1												**Source: 386689-001**
4,4'-DDE	15	50	50	68	67	ug/Kg	106	104	1.5	70-130	20	
4,4'-DDT	79	50	50	71	66	ug/Kg	0	0	7.3	70-130	20	M
a-BHC	ND	50	50	57	56	ug/Kg	114	112	1.8	70-130	20	
Aldrin	ND	50	50	58	56	ug/Kg	116	112	3.5	70-130	20	
b-BHC	ND	50	50	49	47	ug/Kg	98	94	4.2	70-130	20	

QCBatchID: QC1174505	Analyst: nhernandez	Method: EPA 8081A
Matrix: Solid	Analyzed: 01/20/2017	Instrument: SVOA-GC (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174505MS1, QC1174505MSD1											**Source:**	**386689-001**
d-BHC	ND	50	50	56	56	ug/Kg	112	112	0.0	70-130	20	
Dieldrin	ND	50	50	62	61	ug/Kg	124	122	1.6	70-130	20	
Endosulfan I	ND	50	50	48	47	ug/Kg	96	94	2.1	70-130	20	
Endosulfan II	ND	50	50	47	43	ug/Kg	94	86	8.9	70-130	20	
Endosulfan sulfate	ND	50	50	59	77	ug/Kg	118	154	26.5	70-130	20	M
Endrin	ND	50	50	57	52	ug/Kg	114	104	9.2	70-130	20	
Endrin aldehyde	ND	50	50	54	49	ug/Kg	108	98	9.7	70-130	20	
Heptachlor	ND	50	50	50	49	ug/Kg	100	98	2.0	70-130	20	
Heptachlor epoxide	ND	50	50	53	52	ug/Kg	106	104	1.9	70-130	20	
Lindane (Gamma-BHC)	ND	50	50	56	54	ug/Kg	112	108	3.6	70-130	20	
Methoxychlor	ND	50	50	61	57	ug/Kg	122	114	6.8	70-130	20	

QCBatchID:	QC1174600	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/23/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174600MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174600LCS1											
Lead	100		98.8		mg/Kg	99			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174600MS1, QC1174600MSD1												**Source: 386689-001**
Lead	50.2	100	100	140	162	mg/Kg	90	112	14.6	75-125	20	

QCBatchID:	QC1174601	Analyst:	dswafford	Method:	EPA 6020
Matrix:	Solid	Analyzed:	01/23/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174601MB1					
Arsenic	ND	mg/Kg	0.02	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174601LCS1											
Arsenic	50		54.5		mg/Kg	109			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174601MS1, QC1174601MSD1												**Source: 386689-001**
Arsenic	5.04	50	50	51.2	51.8	mg/Kg	92	94	1.2	75-125	20	

QCBatchID:	QC1174765	Analyst:	jeannynguye	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	01/27/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174765MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174765LCS1											
Lead	100		89.9		mg/Kg	90			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174765MS1, QC1174765MSD1												**Source: 386689-008**
Lead	27.5	100	100	111	112	mg/Kg	84	85	0.9	75-125	20	

QCBatchID:	QC1174829	Analyst:	dswafford	Method:	EPA 6020
Matrix:	Solid	Analyzed:	01/30/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174829MB1					
Arsenic	ND	mg/Kg	0.02	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174829LCS1											
Arsenic	50		58.0		mg/Kg	116			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174829MS1, QC1174829MSD1												**Source: 386689-008**
Arsenic	12.8	50	50	63.5	60.5	mg/Kg	101	95	4.8	75-125	20	

QCBatchID: QC1174876	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 01/31/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174876MB1					
Arsenic	**0.009 J**	mg/L	0.004	0.05	
Barium	**0.04 J**	mg/L	0.001	0.5	
Cadmium	ND	mg/L	0.001	0.05	
Chromium	ND	mg/L	0.002	0.05	
Lead	ND	mg/L	0.004	0.05	
Selenium	**0.030 J**	mg/L	0.004	0.05	
Silver	ND	mg/L	0.001	0.05	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174876LCS1											
Arsenic	2		2.24		mg/L	112			80-120		
Barium	2		2.15		mg/L	108			80-120		
Cadmium	2		2.21		mg/L	111			80-120		
Chromium	2		1.990		mg/L	100			80-120		
Lead	2		1.933		mg/L	97			80-120		
Selenium	2		2.10		mg/L	105			80-120		
Silver	2		2.02		mg/L	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174876MS1, QC1174876MSD1												**Source: 387114-001**
Arsenic	ND	1	1	1.059	0.985	mg/L	106	99	7.2	75-125	20	
Barium	0.04	1	1	1.03	0.94	mg/L	99	90	9.1	75-125	20	
Cadmium	ND	1	1	1.074	0.984	mg/L	107	98	8.7	75-125	20	
Chromium	ND	1	1	0.958	0.877	mg/L	96	88	8.8	75-125	20	
Lead	ND	1	1	0.939	0.876	mg/L	94	88	6.9	75-125	20	
Selenium	0.032	1	1	1.058	0.980	mg/L	103	95	7.7	75-125	20	
Silver	ND	1	1	0.935	0.939	mg/L	94	94	0.4	75-125	20	

QCBatchID: QC1174909	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 02/01/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174909MB1					
Chromium	**0.021 J**	mg/L	0.006	0.03	
Lead	ND	mg/L	0.012	0.015	
Nickel	**0.016 J**	mg/L	0.003	0.06	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1174909MS1, QC1174909MSD1												**Source: 386813-002**
Chromium	0.972	10	10	10.4	9.65	mg/L	94	87	7.5	75-125	20	
Lead	ND	10	10	8.74	8.43	mg/L	87	84	3.6	75-125	20	
Nickel	0.734	10	10	9.98	9.34	mg/L	92	86	6.6	75-125	20	

QCBatchID:	QC1175022	Analyst:	dswafford	Method:	EPA 6020
Matrix:	Solid	Analyzed:	02/03/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175022MB1					
Arsenic	ND	mg/Kg	0.02	0.3	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175022LCS1											
Arsenic	50		59.7		mg/Kg	119			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175022MS1, QC1175022MSD1												**Source: 386688-005**
Arsenic	5.28	50	50	57.6	57.9	mg/Kg	105	105	0.5	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 386689 Page: 1 of 2	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S67-0.5'	01/16/17	1:45 PM	S	1/8oz		x	x	x								
2	S67-1.5'	01/16/17	1:50 PM	S	1/8oz											x	
3	S67-2.5'	01/16/17	1:55 PM	S	1/8oz											x	
4	S68-0.5'	01/16/17	2:00 PM	S	1/8oz		x	x	x								
5	S68-1.5'	01/16/17	2:05 PM	S	1/8oz											x	
6	S68-2.5'	01/16/17	2:10 PM	S	1/8oz											x	
7	S69-0.5'	01/16/17	2:05 PM	S	1/8oz		x	x	x								
8	S69-1.5'	01/16/17	2:10 PM	S	1/8oz											x	
9	S69-2.5'	01/16/17	2:15 PM	S	1/8oz											x	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	1/18/17 0900
1 Received By:	[signature]	FNASH	EA	1/18/17 9:00
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 386689 Page: 2 of 2	Standard: x; 4 Day: ; 3 Day: ; 2 Day: ; 1 Day: ; Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Suite 104#333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			HOLD	Test Instructions / Comments
1	S67-0.5'	01/16/17	2:15 PM	S	1/8oz		x	x	x								
2	S67-1.5'	01/16/17	2:20 PM	S	1/8oz											x	
3	S67-2.5'	01/16/17	2:25 PM	S	1/8oz											x	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	01/18/17 0900
1 Received By:	[signature]	T. Nash	EA	1/18/17 9:00
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES GROUP Project: GRANT HS

Date Received: 1/18/17 Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? (Yes) How many? 1 No (skip section 2) Sample Temp (°C):_____

Sample Temp (°C) from each cooler: #1: 6.6°C #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ✓ Ice ____ Ice Packs ____ Bubble Wrap ____ Styrofoam ____ Paper ____ None ____ Other _____

Cooler Temp (°C): #1: 4.7°C #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times) TR	✓	✓	
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Section 4

Explanations/Comments: 2ND PAGE OF SAMPLES ON COC DO NOT MATCH CONTAINERS. SAMPLE CONTAINERS READ S70-0.5', S70-1.5', S70-2.5'

Section 5

For discrepancies, how was the Project Manager notified? (Verbal) Email PM Initials: TC Date/Time 1/18/17 (email sent to/on): _____ / _____

Project Manager's response:

Completed By: [signature] Date: 1/18/17

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, January 20, 2017 3:09 PM
To: Ranjit Clarke
Cc: Danny Baysa
Subject: Re: Sample ID ?s: Grant HS (01/16/17)

I just confirmed with Danny that the jars are correct.
Thanks.

On Jan 20, 2017, at 3:02 PM, Ranjit Clarke <Ranjit.Clarke@enthalpy.com> wrote:

> Thanks.
>
> **<image001.jpg>**
>
> Ranjit Clarke
> Senior Project Manager
> O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209
> Ranjit.Clarke@enthalpy.com
>
> ---
>
> **From:** Skye Green [mailto:sgreen@cesgroup.co]
> **Sent:** Friday, January 20, 2017 3:02 PM
> **To:** Ranjit Clarke <Ranjit.Clarke@enthalpy.com>
> **Cc:** Danny Baysa <dbaysa@cesgroup.co>
> **Subject:** Re: Sample ID ?s: Grant HS (01/16/17)
>
> I think the jars would be correct but Danny will confirm since he was out in the field.
> Skye
>
> On Jan 20, 2017, at 1:10 PM, Ranjit Clarke <Ranjit.Clarke@enthalpy.com> wrote:
>
>> Danny,
>>
>> Please see COC pg. 2 of 2. The IDs listed on the page say "S67", but the jars receive reference "S70". I assume the jars are correct since you already have "S67" samples listed on pg. 1 of 2. Please confirm.
>>
>> In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.
>>
>> **<image001.jpg>**
>>
>> Ranjit Clarke
>> Senior Project Manager
>> Enthalpy Analytical
>> 931 W. Barkley Ave., Orange, CA 92868
>> O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Thursday, January 26, 2017 11:33 AM
To: Ranjit Clarke
Subject: RE: Grant HS (01/16/17) - Enthalpy Analytical Final Report #386689

Ranjit,
Please run the following for Grant HS:
S67-0.5' STLC
S67-1.5' Lead
S68-0.5' STLC and TCLP
S68-1.5' Lead
S69-0.5' STLC
S69-1.5' Lead and arsenic

Also, I believe that I am still waiting on S9-2.5' for lead and S9-1.5' STLC for Grant. Just want to make sure that they are still on their way.
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Wednesday, January 25, 2017 5:05 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Grant HS (01/16/17) - Enthalpy Analytical Final Report #386689

Hi Skye Green,

Attached is your final report #386689. Please let me know if you require STLC and/or TCLP on the S67-0.5', S68-0.5', and S69-0.5' samples.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Thursday, February 02, 2017 5:20 PM
To: Ranjit Clarke
Subject: RE: Enthalpy Analytical Final Report #386689

Ranjit,
For the Grant site, please run sample S69-2.5' for arsenic. Please use a 3-day turnaround time.
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, February 2, 2017 3:07 PM
To: sgreen@cesgroup.co; Danny Baysa <dbaysa@cesgroup.co>
Subject: Enthalpy Analytical Final Report #386689

Hi Skye Green,

Attached is your final report #386689.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	387645
Address:	33353 Temecula Pkwy.	Report Date:	02/22/2017
	Suite 104 #333	Date Received:	02/13/2017
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

Supplemental Report 1

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
387645-001	S71-0.5'
387645-002	S71-1.5'
387645-003	S71-2.5'
387645-004	S71-5.0'
387645-005	S72-0.5'
387645-006	S72-0.5D
387645-007	S72-1.5'
387645-008	S72-2.5'
387645-009	S73-0.5'
387645-010	S73-1.5'
387645-011	S73-2.5'
387645-012	S74-0.5'
387645-013	S74-1.5'
387645-014	S74-2.5'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:20 **Site:**
Sample #: 387645-001 **Client Sample #:** S71-0.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175354		
Lead	**21.6**	1	0.32	0.5	mg/Kg	02/13/17	02/14/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175352		
Arsenic	**6.38**	10	0.2	3	mg/Kg	02/13/17	02/14/17	KLN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:25 **Site:**
Sample #: 387645-002 **Client Sample #:** S71-1.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:30 **Site:**
Sample #: 387645-003 **Client Sample #:** S71-2.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:50 **Site:**
Sample #: 387645-004 **Client Sample #:** S71-5.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:50 **Site:**
Sample #: 387645-005 **Client Sample #:** S72-0.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175354		
Lead	**10.6**	1	0.32	0.5	mg/Kg	02/13/17	02/14/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:50 **Site:**
Sample #: 387645-006 **Client Sample #:** S72-0.5D **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175354		
Lead	**32.6**	1	0.32	0.5	mg/Kg	02/13/17	02/14/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:55 **Site:**
Sample #: 387645-007 **Client Sample #:** S72-1.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 11:00 **Site:**
Sample #: 387645-008 **Client Sample #:** S72-2.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:40 **Site:**
Sample #: 387645-009 **Client Sample #:** S73-0.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID: QC1175629		
Lead	**0.314**	1	0.004	0.05	mg/L	02/22/17	02/22/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175354		
Lead	**110**	1	0.32	0.5	mg/Kg	02/13/17	02/14/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID: QC1175628		
Lead	**4.15**	10	0.12	0.15	mg/L	02/22/17	02/22/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:45 **Site:**
Sample #: 387645-010 **Client Sample #:** S73-1.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175564		
Lead	**16.0**	1	0.32	0.5	mg/Kg	02/20/17	02/20/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:50 **Site:**
Sample #: 387645-011 **Client Sample #:** S73-2.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:25 **Site:**
Sample #: 387645-012 **Client Sample #:** S74-0.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1175354		
Lead	**43.1**	1	0.32	0.5	mg/Kg	02/13/17	02/14/17	JN	

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:30 **Site:**
Sample #: 387645-013 **Client Sample #:** S74-1.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

Matrix: Solid **Client:** CES Group, Inc. **Collector:** Client
Sampled: 02/11/2017 10:35 **Site:**
Sample #: 387645-014 **Client Sample #:** S74-2.5' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method:	Prep Method:						QCBatchID:		
N/A	**N/A**	1							

QCBatchID: QC1175352	Analyst: dswafford	Method: EPA 6020
Matrix: Solid	Analyzed: 02/14/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175352MB1					
Arsenic	**0.034 J**	mg/Kg	0.02	0.3	
Thallium	**0.024 J**	mg/Kg	0.02	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175352LCS1											
Arsenic	50		59.7		mg/Kg	119			80-120		
Thallium	50		50.2		mg/Kg	100			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175352MS1, QC1175352MSD1												**Source: 387627-008**
Arsenic	8.16	50	50	57.4	62.7	mg/Kg	98	109	8.8	75-125	20	
Thallium	ND	50	50	42.3	46.5	mg/Kg	84	93	9.5	75-125	20	

QCBatchID: QC1175354	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 02/14/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175354MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Calcium	**7.72 J**	mg/Kg	0.94	50	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Iron	**1.16 J**	mg/Kg	0.4	5	
Lead	ND	mg/Kg	0.32	0.5	
Molybdenum	**0.28 J**	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Potassium	**3.58 J**	mg/Kg	3.07	50	
Selenium	**4.50**	mg/Kg	0.72	1	B
Silver	ND	mg/Kg	0.13	0.5	
Sodium	**4.94 J**	mg/Kg	3.07	50	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175354LCS1											
Antimony	100		103		mg/Kg	103			80-120		
Arsenic	100		94.9		mg/Kg	95			80-120		
Barium	100		97.0		mg/Kg	97			80-120		
Beryllium	100		89.7		mg/Kg	90			80-120		
Cadmium	100		97.1		mg/Kg	97			80-120		
Chromium	100		94.0		mg/Kg	94			80-120		
Cobalt	100		96.7		mg/Kg	97			80-120		
Copper	100		99.2		mg/Kg	99			80-120		
Lead	100		96.3		mg/Kg	96			80-120		
Molybdenum	100		96.3		mg/Kg	96			80-120		
Nickel	100		98.6		mg/Kg	99			80-120		
Selenium	100		91.1		mg/Kg	91			80-120		
Silver	100		90.3		mg/Kg	90			80-120		
Thallium	100		102		mg/Kg	102			80-120		
Vanadium	100		99.6		mg/Kg	100			80-120		
Zinc	100		92.4		mg/Kg	92			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175354MS1, QC1175354MSD1												**Source: 387627-001**
Antimony	ND	100	100	45.5	44.4	mg/Kg	46	44	2.4	75-125	20	M
Arsenic	2.99	100	100	109	97.8	mg/Kg	106	95	10.8	75-125	20	
Barium	94.3	100	100	211	191	mg/Kg	117	97	10.0	75-125	20	
Beryllium	ND	100	100	92.1	88.3	mg/Kg	92	88	4.2	75-125	20	
Cadmium	0.27	100	100	105	94.8	mg/Kg	105	95	10.2	75-125	20	

QCBatchID: QC1175354	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 02/14/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175354MS1, QC1175354MSD1												**Source: 387627-001**
Chromium	11.8	100	100	116	104	mg/Kg	104	92	10.9	75-125	20	
Cobalt	8.03	100	100	110	99.4	mg/Kg	102	91	10.1	75-125	20	
Copper	12.6	100	100	118	107	mg/Kg	105	94	9.8	75-125	20	
Lead	12.8	100	100	112	100	mg/Kg	99	87	11.3	75-125	20	
Molybdenum	0.32	100	100	99.0	88.3	mg/Kg	99	88	11.4	75-125	20	
Nickel	7.77	100	100	110	99.2	mg/Kg	102	91	10.3	75-125	20	
Selenium	ND	100	100	53.9	51.6	mg/Kg	54	52	4.4	75-125	20	M
Silver	ND	100	100	95.6	85.4	mg/Kg	96	85	11.3	75-125	20	
Thallium	ND	100	100	99.5	87.8	mg/Kg	100	88	12.5	75-125	20	
Vanadium	31.3	100	100	140	126	mg/Kg	109	95	10.5	75-125	20	
Zinc	53.6	100	100	166	150	mg/Kg	112	96	10.1	75-125	20	

QCBatchID:	QC1175564	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	02/20/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175564MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175564LCS1											
Lead	200		168		mg/Kg	84			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175564MS1, QC1175564MSD1												**Source: 387645-010**
Lead	16.0	50	50	56.0	58.3	mg/Kg	80	85	4.0	75-125	20	

QCBatchID:	QC1175628	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	02/22/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175628MB1					
Lead	ND	mg/L	0.012	0.015	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175628MS1, QC1175628MSD1												**Source: 387645-009**
Lead	4.15	10	10	11.6	12.4	mg/L	75	83	6.7	75-125	20	M

QCBatchID:	QC1175629	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	02/22/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1175629MB1					
Lead	ND	mg/L	0.004	0.05	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175629LCS1											
Lead	2		1.748		mg/L	87			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1175629MS1, QC1175629MSD1												**Source: 387645-009**
Lead	0.314	1	1	1.188	1.247	mg/L	87	93	4.8	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 387645 Page: 1 of 2	Standard: ☐ 4 Day: ☐ 3 Day: X 2 Day: ☐ 1 Day: ☐ Same Day: ☐
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Ste 104 #333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S71-0.5'	02/11/17	10:20 AM	S	1/8oz		x	x									
2	S71-1.5'	02/11/17	10:25 AM	S	1/8oz											x	
3	S71-2.5'	02/11/17	10:30 AM	S	1/8oz											x	
4	S71-5.0'	02/11/17	10:50 AM	S	1/8oz											x	
5	S72-0.5'	02/11/17	10:50 AM	S	1/8oz		x										
6	S72-0.5D	02/11/17	10:50 AM	S	1/8oz		x										
7	S72-1.5'	02/11/17	10:55 AM	S	1/8oz											x	
8	S72-2.5'	02/11/17	11:00 AM	S	1/8oz											x	
9				S	1/8oz												
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	2/13/17 1200
1 Received By:	[signature]	L. Marroletti		2/13/17 1316
2 Relinquished By:	[signature]	L. Marroletti		2/13/17 1439
2 Received By:	[signature]	ZAID PADILLA	EA	2/13/17 1440
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 387645 Page: 2 of 2	Standard: ☐ 4 Day: ☐ 3 Day: X 2 Day: ☐ 1 Day: ☐ Same Day: ☐
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Ste 104 #333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			HOLD	Test Instructions / Comments
1	S70-0.5'	02/11/17	10:40 AM	S	1/8oz		x										
2	S70-1.5'	02/11/17	10:45 AM	S	1/8oz											x	
3	S70-2.5'	02/11/17	10:50 AM	S	1/8oz											x	
4	S70-0.5'	02/11/17	10:25 AM	S	1/8oz		x										
5	S70-1.5'	02/11/17	10:30 AM	S	1/8oz											x	
6	S70-2.5'	02/11/17	10:35 AM	S	1/8oz											x	
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	2/13/17 1200
1 Received By:		L. Marrolett		2/13/17 1316
2 Relinquished By:	[signature]	L. Marrolett		2/13/17 1439
2 Received By:	[signature]	TAD PADILLA	EA	2/13/17 1440
3 Relinquished By:				
3 Received By:				

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES GROUP Project: GRANT HS

Date Received: 2/13/14 Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? (Yes) How many? 2 No (skip section 2) Sample Temp (°C): _____

Sample Temp (°C) from each cooler: #1: 4.7°C #2: 13.4°C #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other _____

Cooler Temp (°C): #1: 0.7°C #2: 3.4°C #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times) *		✓	
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4

Explanations/Comments: SAMPLE ID'S ON THE SECOND C.O.C. DID NOT COINCIDE WITH THE SAMPLE LABELS.

Section 5

For discrepancies, how was the Project Manager notified? (Verbal) Email PM Initials: R.C. Date/Time 2/13/17 (email sent to/on): _____ / _____

Project Manager's response: FOLLOW IDS PROVIDED ON SAMPLE LABELS.

Completed By: _____ Date: 2/13/17

Ranjit Clarke

From: Danny Baysa <dbaysa@cesgroup.co>
Sent: Tuesday, February 14, 2017 7:12 AM
To: Ranjit Clarke; sgreen@cesgroup.co
Subject: RE: Sample IDs - Grant HS

Sorry. Yes, should be S73 and S74.
Thank you

Danny Baysa
CES - Novacom - ERG
310.614.8191 Cell

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Monday, February 13, 2017 6:18 PM
To: 'Danny Baysa'; sgreen@cesgroup.co
Subject: Sample IDs - Grant HS
Importance: High

Skye/Danny,

The sample IDs on the 2nd page all have the "S70" prefix. However, the samples we received have "S73" and "S74" prefixes. Please confirm that the sample container labels are correct.

Thanks,

Ranjit

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Ranjit Clarke
Senior Project Manager
Enthalpy Analytical
931 W. Barkley Ave., Orange, CA 92868
O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209
Ranjit.Clarke@enthalpy.com

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Ranjit Clarke

From: Skye Green <sgreen@cesgroup.co>
Sent: Friday, February 17, 2017 10:44 AM
To: Ranjit Clarke
Subject: RE: Enthalpy Analytical Final Report #387645

Ranjit,
For the Grant site, please run S73-1.5' for lead and run S73-0.5' for STLC and TCLP using 3-day TAT.
Thanks,

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Thursday, February 16, 2017 6:29 PM
To: sgreen@cesgroup.co; 'Danny Baysa' <dbaysa@cesgroup.co>
Subject: Enthalpy Analytical Final Report #387645

Hi Skye Green,

Attached is your final report #387645.

Thank you.

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Data qualifiers and additional information necessary for the interpretation of the test results are contained in the PDF file and may not be included in the EDD.

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EXCAVATION RESULTS

Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	392665
Address:	33353 Temecula Pkwy.	Report Date:	07/26/2017
	Suite 104 #333	Date Received:	07/15/2017
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS - See attached report for EPA 6020 results.

Supplemental Report 1 - All results through the 07/19/17 change order.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
392665-001	S68 Exc Bottom
392665-002	S68 Exc North Wall
392665-003	S68 Exc East Wall
392665-004	S68 Exc South Wall
392665-005	S68 Exc West Wall
392665-006	S69 Exc South Wall
392665-007	S69 Exc Bottom
392665-008	S9 Exc Bottom
392665-009	S9 Exc North Wall
392665-010	S8 Exc East Wall
392665-011	S8 Exc Bottom
392665-012	S73 Exc Bottom
392665-013	S73 Exc West Wall
392665-014	S67 Exc Bottom
392665-015	S67 Exc South Wall

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/13/2017 14:00	**Site:**			
Sample #:	**392665-001**	**Client Sample #:**	S68 Exc Bottom	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**39.4**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/13/2017 14:02	**Site:**			
Sample #:	**392665-002**	**Client Sample #:**	S68 Exc North Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**162**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/13/2017 14:04	**Site:**			
Sample #:	**392665-003**	**Client Sample #:**	S68 Exc East Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**198**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/13/2017 14:06	**Site:**			
Sample #:	**392665-004**	**Client Sample #:**	S68 Exc South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**152**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/13/2017 14:08	**Site:**			
Sample #:	**392665-005**	**Client Sample #:**	S68 Exc West Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 1311/3010A						QCBatchID:	QC1180947	
Lead	**0.212**	1	0.004	0.05	mg/L	07/26/17	07/26/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**274**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	
Method: EPA 6010B *NELAC*	Prep Method: STLC						QCBatchID:	QC1180882	
Lead	**24.5**	10	0.12	0.15	mg/L	07/24/17	07/24/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/14/2017 13:45	**Site:**			
Sample #:	**392665-006**	**Client Sample #:**	S69 Exc South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**16.6**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: See Attached						QCBatchID:		
See Attached		1							

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 13:47	Site:	
Sample #: **392665-007**	Client Sample #: S69 Exc Bottom	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**22.4**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	
Method: EPA 6020 *NELAC*	Prep Method: See Attached						QCBatchID:		
See Attached		1							

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 13:49	Site:	
Sample #: **392665-008**	Client Sample #: S9 Exc Bottom	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**49.2**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 13:50	Site:	
Sample #: **392665-009**	Client Sample #: S9 Exc North Wall	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**6.88**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 14:00	Site:	
Sample #: **392665-010**	Client Sample #: S8 Exc East Wall	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**21.2**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 14:02	Site:	
Sample #: **392665-011**	Client Sample #: S8 Exc Bottom	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**149**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 14:05	Site:	
Sample #: **392665-012**	Client Sample #: S73 Exc Bottom	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**29.6**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix: Solid	Client: CES Group, Inc.	Collector: Client
Sampled: 07/14/2017 14:13	Site:	
Sample #: **392665-013**	Client Sample #: S73 Exc West Wall	Sample Type:

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID: QC1180594		
Lead	**30.3**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/14/2017 14:17	**Site:**			
Sample #:	**392665-014**	**Client Sample #:**	S67 Exc Bottom	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**117**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/14/2017 14:20	**Site:**			
Sample #:	**392665-015**	**Client Sample #:**	S67 Exc South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180594	
Lead	**144**	1	0.32	0.5	mg/Kg	07/17/17	07/17/17	JN	

QCBatchID:	QC1180594	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	07/17/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1180594MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180594LCS1											
Lead	100		91.9		mg/Kg	92			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180594MS1, QC1180594MSD1												**Source: 392665-001**
Lead	39.4	100	100	123	120	mg/Kg	84	81	2.5	75-125	20	

QCBatchID:	QC1180882	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	07/24/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1180882MB1					
Chromium	ND	mg/L	0.006	0.03	
Lead	ND	mg/L	0.012	0.015	
Nickel	ND	mg/L	0.003	0.06	

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180882MS1, QC1180882MSD1												**Source: 392665-005**
Chromium	0.139	10	10	10.5	9.54	mg/L	104	94	9.6	75-125	20	
Lead	24.5	10	10	36.3	32.8	mg/L	118	83	10.1	75-125	20	
Nickel	0.160	10	10	10.2	9.30	mg/L	100	91	9.2	75-125	20	

QCBatchID: QC1180947	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 07/26/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1180947MB1					
Arsenic	ND	mg/L	0.004	0.05	
Barium	**0.16 J**	mg/L	0.001	0.5	
Cadmium	ND	mg/L	0.001	0.05	
Chromium	ND	mg/L	0.002	0.05	
Lead	ND	mg/L	0.004	0.05	
Selenium	ND	mg/L	0.004	0.05	
Silver	ND	mg/L	0.001	0.05	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180947LCS1											
Arsenic	2		2.18		mg/L	109			80-120		
Barium	2		2.21		mg/L	111			80-120		
Cadmium	2		1.981		mg/L	99			80-120		
Chromium	2		1.844		mg/L	92			80-120		
Lead	2		1.921		mg/L	96			80-120		
Selenium	2		2.22		mg/L	111			80-120		
Silver	2		2.01		mg/L	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180947MS1, QC1180947MSD1												**Source: 392805-001**
Arsenic	ND	1	1	1.106	1.074	mg/L	111	107	2.9	75-125	20	
Barium	0.22	1	1	1.21	1.20	mg/L	99	98	0.8	75-125	20	
Cadmium	0.002	1	1	0.953	0.943	mg/L	95	94	1.1	75-125	20	
Chromium	0.010	1	1	0.942	0.926	mg/L	93	92	1.7	75-125	20	
Lead	0.020	1	1	0.970	0.930	mg/L	95	91	4.2	75-125	20	
Selenium	ND	1	1	1.130	1.063	mg/L	113	106	6.1	75-125	20	
Silver	ND	1	1	1.008	0.988	mg/L	101	99	2.0	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 392665 Page: 1 of 2	Standard: ☐ 4 Day: ☐ 3 Day: ☐ 2 Day: ☐ 1 Day: X Same Day: ☐
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Ste 104 #333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)				Test Instructions / Comments
1	S68 Exc Bottom	07/13/17	14:00 PM	S	1/8oz		X										
2	S68 Exc North Wall	07/13/17	14:02 PM	S	1/8oz		X										
3	S68 Exc East Wall	07/13/17	14:04 PM	S	1/8oz		X										
4	S68 Exc South Wall	07/13/17	14:06 PM	S	1/8oz		X										
5	S68 Exc West Wall	07/13/17	14:08 PM	S	1/8oz		X										
6																	
7																	
8																	
9																	
10																	

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	7/15/17 0940
1 Received By:	[signature]	Lea Leatherman	EA	07/15/17 940
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 392665 Page: 2 of 2	Standard: ☐ 4 Day: ☐ 3 Day: ☐ 2 Day: ☐ 1 Day: X Same Day: ☐
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	Grant HS
Report To:	Skye Green	Number:	
Email:	sgreen@cesgroup.co	P.O. #:	27016
Address:	33353 Temecula Pkwy , Ste 104 #333	Address:	13000 Oxnard St.
	Temecula, CA 92592		Los Angeles, CA 91335
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	D. Baysa

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead (6010B)	Arsenic (6020)	Organochlorine Pesticides (8081B)	Pet Hydrocarbon as gas,diesel,oil 8015cc	VOCs (8260B)	PCBs (8081A)	Title 22 Metals (6010B/7471A)			HOLD	Test Instructions / Comments
1	S69 Exc South Wall	07/14/17	13:45 PM	S	1/8oz		X	X									
2	S69 Exc Bottom	07/14/17	13:47 PM	S	1/8oz		X	X									
3	S9 Exc Bottom	07/14/17	13:49 PM	S	1/8oz		X										
4	S9 Exc North Wall	07/14/17	13:50 PM	S	1/8oz		X										
5	S8 Exc East Wall	07/14/17	14:00 PM	S	1/8oz		X										
6	S8 Exc Bottom	07/14/17	14:02 PM	S	1/8oz		X										
7	S73 Exc Bottom	07/14/17	14:05 PM	S	1/8oz		X										
8	S73 Exc West Wall	07/14/17	14:13 PM	S	1/8oz		X										
9	S67 Exc Bottom	07/14/17	14:17 PM	S	1/8oz		X										
10	S67 Exc South Wall	07/14/17	14:20 PM	S	1/8oz		X										

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Danny Baysa	CES Group/ Field Supervisor	7/15/17 0940
1 Received By:	[signature]	Lea Leatherman	EA	07/15/17 940
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES Group Project: Grant HS/LAUSD

Date Received: 07/15/17 Sampler's Name Present: [X] Yes [ ] No

Sample(s) received in a cooler? [X] Yes How many? 1 [ ] No (skip section 2) Sample Temp (°C): 6.3

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other _____

Cooler Temp (°C): #1: 0.8 #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? Recommended for Microbiology samples)			X
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?			X
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? [ ] Verbal PM Initials: _____ Date/Time _____

[ ] Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: [signature] Date: 07/15/17

Ranjit Clarke

From: Skye Green
Sent: Wednesday, July 19, 2017 11:49 AM
To: 'Ranjit Clarke'
Subject: RE: Grant HS (07/13/17 - 07/14/17) - Enthalpy Analytical Final Report #392665

We are ok with normal TAT because we have some more samples to collect and send you.

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:Ranjit.Clarke@enthalpy.com]
Sent: Wednesday, July 19, 2017 11:20 AM
To: Skye Green <sgreen@cesgroup.co>
Subject: Re: Grant HS (07/13/17 - 07/14/17) - Enthalpy Analytical Final Report #392665

Will do. Rush TAT (results on Monday)?
On Wed, Jul 19, 2017 at 11:18 AM Skye Green <sgreen@cesgroup.co> wrote:

> Ranjit,
>
> Please run the STLC and TCLP analysis on the highest result (S68 Exc West Wall).
>
> Thanks,
>
> **Skye Green, P.E.**
>
> CES Group, Inc.
>
> CES/Novacom/ERG
>
> 951-808-8585 office
>
> 714-398-6363 mobile
>
> 951-848-9812 fax

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WORK ORDER NUMBER: 17-07-0959

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Enthalpy Analytical, Inc.

Client Project Name: 392665

Attention: Ranjit Clarke
931 W. Barkley Avenue
Orange, CA 92868-1208

Sheila Lau for

Approved for release on 07/18/2017 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

Eurofins Calscience, 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.

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Work Order Number: 17-07-0959

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Work Order Narrative

Work Order: 17-07-0959 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/17/17. They were assigned to Work Order 17-07-0959.

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.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

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.

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Sample Summary

Client:	Enthalpy Analytical, Inc. 931 W. Barkley Avenue Orange, CA 92868-1208	Work Order:	17-07-0959
		Project Name:	392665
		PO Number:	392665
		Date/Time Received:	07/17/17 15:31
		Number of Containers:	2
Attn:	Ranjit Clarke		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S69 Exc South Wall (392665-006)	17-07-0959-1	07/14/17 13:45	1	Solid
S69 Exc Bottom (392665-007)	17-07-0959-2	07/14/17 13:47	1	Solid

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Detections Summary

Client:	Enthalpy Analytical, Inc. 931 W. Barkley Avenue Orange, CA 92868-1208	Work Order: Project Name: Received:	17-07-0959 392665 07/17/17
Attn:	Ranjit Clarke		

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
S69 Exc South Wall (392665-006) (17-07-0959-1)						
Arsenic	17.5		1.00	mg/kg	EPA 6020	EPA 3050B
S69 Exc Bottom (392665-007) (17-07-0959-2)						
Arsenic	17.9		1.00	mg/kg	EPA 6020	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Enthalpy Analytical, Inc.		Date Received:	07/17/17
931 W. Barkley Avenue		Work Order:	17-07-0959
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: 392665			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S69 Exc South Wall (392665-006)	**17-07-0959-1-A**	**07/14/17 13:45**	**Solid**	**ICP/MS 03**	**07/17/17**	**07/18/17 13:17**	**170717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	17.5	1.00	0.389	1.00	

S69 Exc Bottom (392665-007)	**17-07-0959-2-A**	**07/14/17 13:47**	**Solid**	**ICP/MS 03**	**07/17/17**	**07/18/17 13:20**	**170717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	17.9	1.00	0.389	1.00	

Method Blank	**099-15-621-1499**	**N/A**	**Solid**	**ICP/MS 03**	**07/17/17**	**07/17/17 17:06**	**170717L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	ND	1.00	0.389	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Enthalpy Analytical, Inc.		Date Received:	07/17/17
931 W. Barkley Avenue		Work Order:	17-07-0959
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392665			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-07-0174-5	**Sample**	**Sediment**	**ICP/MS 03**	**07/17/17**	**07/17/17 17:57**	**170717S01A**
17-07-0174-5	**Matrix Spike**	**Sediment**	**ICP/MS 03**	**07/17/17**	**07/17/17 17:50**	**170717S01A**
17-07-0174-5	**Matrix Spike Duplicate**	**Sediment**	**ICP/MS 03**	**07/17/17**	**07/17/17 17:52**	**170717S01A**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	2.599	25.00	28.87	105	28.83	105	80-120	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Enthalpy Analytical, Inc.		Date Received:	07/17/17
931 W. Barkley Avenue		Work Order:	17-07-0959
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392665			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-07-0174-5	**Sample**	**Sediment**	**ICP/MS 03**	**07/17/17 00:00**	**07/17/17 17:57**	**170717S01A**
17-07-0174-5	**PDS**	**Sediment**	**ICP/MS 03**	**07/17/17 00:00**	**07/17/17 17:55**	**170717S01A**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Arsenic	2.599	25.00	28.12	102	75-125	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Enthalpy Analytical, Inc.		Date Received:	07/17/17
931 W. Barkley Avenue		Work Order:	17-07-0959
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392665			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-621-1499	**LCS**	**Solid**	**ICP/MS 03**	**07/17/17**	**07/17/17 17:09**	**170717L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	23.67	95	80-120	

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RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 17-07-0959 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.
CI	See case narrative.
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.
JA	Analyte positively identified but quantitation is an estimate.
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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Enthalpy Analytical
Formerly Associated Labs
1 Park Plaza, Suite 1000
Irvine, CA 92614
Tel: 714.771.6900 Fax: 714.538.1209
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Subcontract Laboratory:

Eurofins CalScience - Sub
7440 Lincoln Way
Garden Grove, CA 92841

ATTN: Xuan Dang
PO# 392665

Project: 392665 **Due:** 07/18/17
PM: Ranjit Clarke
Email: ranjit.clarke@enthalpy.com
CC: incomingreports@enthalpy.com

Require: ☑ EDD ☐ EDF ☐ EDT

Report To: ☑ MDL

17-07-0959

Note:

Matrix	Sampled	Sample ID	Analysis	Comment
Solid	07/14/17 13:45	S69 Exc South Wall (392665-006)	6020 Out	As only
Solid	07/14/17 13:47	S69 Exc Bottom (392665-007)	6020 Out	As only

Note:
Arsenic only

24hr TAT

Relinquished By	Received By:
Date/Time 7/17/17 14:55	Date/Time 7/17/17 1458
Date/Time 7/17/17 1531	Date/Time 07/17/17 1531

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WORK ORDER NUMBER: 17-07- 0959

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Enthalpy

DATE: 07 / 17 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 5.5 °C (w/ CF): 5.7 °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

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 300

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 300
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 300

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑ 300 7/21/17	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☑ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☑ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 300

Reviewed by: 836

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Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	392847
Address:	33353 Temecula Pkwy. Suite 104 #333 Temecula, CA 92592	Report Date:	07/24/2017
		Date Received:	07/21/2017
		Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS
PO# 27016
13000 Oxnard St., Los Angeles, CA 91335

See attached report for EPA 6020 results.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
392847-001	S73 EXC North Wall
392847-002	S69 EXC South Wall
392847-003	S69 EXC Bottom
392847-004	S67 EXC West Wall
392847-005	S67 EXC South Wall
392847-006	S68 EXC North Wall
392847-007	S68 EXC South Wall
392847-008	S68 EXC East Wall
392847-009	S68 EXC West Wall

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 11:35	Site:			
Sample #:	392847-001	Client Sample #:	S73 EXC North Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**37.6**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 11:45	Site:			
Sample #:	392847-002	Client Sample #:	S69 EXC South Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**7.25**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	
Method: EPA 6020 NELAC	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 11:55	Site:			
Sample #:	392847-003	Client Sample #:	S69 EXC Bottom	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**4.33**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	
Method: EPA 6020 NELAC	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 11:25	Site:			
Sample #:	392847-004	Client Sample #:	S67 EXC West Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**51.3**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 11:15	Site:			
Sample #:	392847-005	Client Sample #:	S67 EXC South Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**208**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 12:05	Site:			
Sample #:	392847-006	Client Sample #:	S68 EXC North Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**128**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	Client:	CES Group, Inc.	Collector:	Client
Sampled:	07/21/2017 12:15	Site:			
Sample #:	392847-007	Client Sample #:	S68 EXC South Wall	Sample Type:	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**63.0**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/21/2017 12:20	**Site:**			
Sample #:	**392847-008**	**Client Sample #:**	S68 EXC East Wall	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**31.9**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/21/2017 12:25	**Site:**			
Sample #:	**392847-009**	**Client Sample #:**	S68 EXC West Wall	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID:	QC1180841	
Lead	**186**	1	0.5	mg/Kg	07/24/17	07/24/17	JN	

QCBatchID: QC1180841	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 07/24/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1180841MB1					
Antimony	ND	mg/Kg		3	
Arsenic	ND	mg/Kg		1	
Barium	ND	mg/Kg		1	
Beryllium	ND	mg/Kg		0.5	
Cadmium	ND	mg/Kg		0.5	
Chromium	ND	mg/Kg		1	
Cobalt	ND	mg/Kg		0.5	
Copper	ND	mg/Kg		1	
Lead	ND	mg/Kg		0.5	
Molybdenum	ND	mg/Kg		1	
Nickel	ND	mg/Kg		1.5	
Selenium	ND	mg/Kg		1	
Silver	ND	mg/Kg		0.5	
Thallium	ND	mg/Kg		1	
Vanadium	ND	mg/Kg		0.5	
Zinc	ND	mg/Kg		5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180841LCS1											
Antimony	100		97.6		mg/Kg	98			80-120		
Arsenic	100		94.5		mg/Kg	95			80-120		
Barium	100		90.5		mg/Kg	91			80-120		
Beryllium	100		93.9		mg/Kg	94			80-120		
Cadmium	100		94.9		mg/Kg	95			80-120		
Chromium	100		94.2		mg/Kg	94			80-120		
Cobalt	100		97.3		mg/Kg	97			80-120		
Copper	100		91.2		mg/Kg	91			80-120		
Lead	100		93.8		mg/Kg	94			80-120		
Molybdenum	100		96.9		mg/Kg	97			80-120		
Nickel	100		95.7		mg/Kg	96			80-120		
Selenium	100		92.2		mg/Kg	92			80-120		
Silver	100		87.5		mg/Kg	88			80-120		
Thallium	100		96.7		mg/Kg	97			80-120		
Vanadium	100		92.3		mg/Kg	92			80-120		
Zinc	100		95.7		mg/Kg	96			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180841MS1, QC1180841MSD1												**Source: 392756-051**
Antimony	ND	100	100	41.6	35.8	mg/Kg	42	36	15.0	75-125	20	M
Arsenic	3.26	100	100	117	102	mg/Kg	114	99	13.7	75-125	20	
Barium	191	100	100	316	318	mg/Kg	125	127	0.6	75-125	20	M
Beryllium	ND	100	100	104	101	mg/Kg	104	101	2.9	75-125	20	
Cadmium	0.35	100	100	116	103	mg/Kg	116	103	11.9	75-125	20	
Chromium	16.7	100	100	129	122	mg/Kg	112	105	5.6	75-125	20	
Cobalt	8.64	100	100	130	107	mg/Kg	121	98	19.4	75-125	20	
Copper	12.5	100	100	122	108	mg/Kg	110	96	12.2	75-125	20	
Lead	46.3	100	100	165	171	mg/Kg	119	125	3.6	75-125	20	

QCBatchID: QC1180841	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 07/24/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180841MS1, QC1180841MSD1											**Source:**	**392756-051**
Molybdenum	ND	100	100	106	94.5	mg/Kg	106	95	11.5	75-125	20	
Nickel	11.6	100	100	121	108	mg/Kg	109	96	11.4	75-125	20	
Selenium	ND	100	100	71.2	57.7	mg/Kg	71	58	20.9	75-125	20	M
Silver	0.54	100	100	103	92.7	mg/Kg	102	92	10.5	75-125	20	
Thallium	ND	100	100	101	89.3	mg/Kg	101	89	12.3	75-125	20	
Vanadium	25.1	100	100	132	120	mg/Kg	107	95	9.5	75-125	20	
Zinc	62.9	100	100	183	164	mg/Kg	120	101	11.0	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave, Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 392847 Page: of	Standard: 4 Day: 3 Day: 2 Day: 1 Day: X Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	
Report To:	Skye Green	Number:	
Email:	Sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Pkwy	Address:	
	Ste 104 #333 Temecula CA. 92592		
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead	Arsenic	Test Instructions / Comments
1	573 EXC North wall	07-21-17	11:35	S	1				
2	569 EXC South wall	07-21-17	11:45					X	
3	569 EXC Bottom	07-21-17	11:55					X	
4	567 EXC West wall	07-21-17	11:25						
5	567 EXC South wall	07-21-17	11:15						
6	568 EXC North wall	07-21-17	12:05						
7	568 EXC South wall	07-21-17	12:15						
8	568 EXC East Wall	07-21-17	12:20						
9	568 EXC West Wall	07-21-17	12:25						
10									

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Enrique Hernandez			07-21-17 14:01
1 Received By:	[illegible]			07/21/17 1601
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES Group Project: _____

Date Received: 07/21/17 Sampler's Name Present ☐ Yes ☑ No

Sample(s) received in a cooler? ☐ Yes How many? _____ ☑ No (skip section 2) Sample Temp (°C): 22.2

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ____ Ice ____ Ice Packs ____ Bubble Wrap ___ Styrofoam ____ Paper ____None ____ Other_____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: [signature] Date: 7/21/17

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WORK ORDER NUMBER: 17-07-1438

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Enthalpy Analytical, Inc.

Client Project Name: 392847

Attention: Ranjit Clarke
931 W. Barkley Avenue
Orange, CA 92868-1208

Sheila Lau for

Approved for release on 07/24/2017 by:
Xuan Dang
Project Manager

ResultLink

Email your PM

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Work Order Number: 17-07-1438

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Work Order Narrative

Work Order: 17-07-1438 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/21/17. They were assigned to Work Order 17-07-1438.

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.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

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.

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Sample Summary

Client:	Enthalpy Analytical, Inc. 931 W. Barkley Avenue Orange, CA 92868-1208	Work Order:	17-07-1438
		Project Name:	392847
		PO Number:	392847
		Date/Time Received:	07/21/17 17:25
		Number of Containers:	2
Attn:	Ranjit Clarke		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
S69 EXC South Wall (392847-002)	17-07-1438-1	07/21/17 11:45	1	Solid
S69 EXC Bottom (392847-003)	17-07-1438-2	07/21/17 11:55	1	Solid

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Detections Summary

Client:	Enthalpy Analytical, Inc. 931 W. Barkley Avenue Orange, CA 92868-1208	Work Order: Project Name: Received:	17-07-1438 392847 07/21/17
Attn:	Ranjit Clarke		

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
S69 EXC South Wall (392847-002) (17-07-1438-1)						
Arsenic	3.03		1.00	mg/kg	EPA 6020	EPA 3050B
S69 EXC Bottom (392847-003) (17-07-1438-2)						
Arsenic	1.30		1.00	mg/kg	EPA 6020	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Enthalpy Analytical, Inc.		Date Received:	07/21/17
931 W. Barkley Avenue		Work Order:	17-07-1438
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
		Units:	mg/kg
Project: 392847			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S69 EXC South Wall (392847-002)	**17-07-1438-1-A**	**07/21/17 11:45**	**Solid**	**ICP/MS 03**	**07/21/17**	**07/24/17 10:32**	**170721L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	3.03	1.00	0.389	1.00	

S69 EXC Bottom (392847-003)	**17-07-1438-2-A**	**07/21/17 11:55**	**Solid**	**ICP/MS 03**	**07/21/17**	**07/24/17 10:35**	**170721L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	1.30	1.00	0.389	1.00	

Method Blank	**099-15-621-1503**	**N/A**	**Solid**	**ICP/MS 03**	**07/21/17**	**07/21/17 23:21**	**170721L01**

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	ND	1.00	0.389	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Enthalpy Analytical, Inc.		Date Received:	07/21/17
931 W. Barkley Avenue		Work Order:	17-07-1438
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392847			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-07-1232-1	**Sample**	**Filter**	**ICP/MS 03**	**07/21/17**	**07/21/17 23:34**	**170721S01**
17-07-1232-1	**Matrix Spike**	**Filter**	**ICP/MS 03**	**07/21/17**	**07/21/17 23:26**	**170721S01**
17-07-1232-1	**Matrix Spike Duplicate**	**Filter**	**ICP/MS 03**	**07/21/17**	**07/21/17 23:29**	**170721S01**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	ND	600.0	612.0	102	599.4	100	80-120	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - PDS

Enthalpy Analytical, Inc.		Date Received:	07/21/17
931 W. Barkley Avenue		Work Order:	17-07-1438
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392847			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-07-1232-1	**Sample**	**Filter**	**ICP/MS 03**	**07/21/17 00:00**	**07/21/17 23:34**	**170721S01**
17-07-1232-1	**PDS**	**Filter**	**ICP/MS 03**	**07/21/17 00:00**	**07/21/17 23:31**	**170721S01**

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Arsenic	ND	600.0	571.3	95	75-125	

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Enthalpy Analytical, Inc.		Date Received:	07/21/17
931 W. Barkley Avenue		Work Order:	17-07-1438
Orange, CA 92868-1208		Preparation:	EPA 3050B
		Method:	EPA 6020
Project: 392847			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-621-1503	**LCS**	**Solid**	**ICP/MS 03**	**07/21/17**	**07/24/17 10:30**	**170721L01**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Arsenic	25.00	24.06	96	80-120	

RPD: Relative Percent Difference. CL: Control Limits

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Glossary of Terms and Qualifiers

Work Order: 17-07-1438 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.
CI	See case narrative.
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.
JA	Analyte positively identified but quantitation is an estimate.
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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MONTROSE ENVIRONMENTAL

Subcontract Laboratory:

Eurofins CalScience - Sub
7440 Lincoln Way
Garden Grove, CA 92841

ATTN: Xuan Dang
PO# 392847

Project: 392847 **Due:** 07/24/17
PM: Ranjit Clarke
Email: ranjit.clarke@enthalpy.com
CC: incomingreports@enthalpy.com

Require: ☑ EDD ☐ EDF ☐ EDT

Report To: ☑ MDL

17-07-1438

Note:

	Matrix	Sampled	Sample ID	Analysis	Comment
1	Solid	07/21/17 11:45	S69 EXC South Wall (392847-002)	6020 Alab	Arsenic only
2	Solid	07/21/17 11:55	S69 EXC Bottom (392847-003)	6020 Alab	Arsenic only

Note:
24hr TAT

Arsenic only

Relinquished By	Received By:
[signature]	[signature]
Date/Time	Date/Time 07/21/17 16:44
07/21/2017 4:44Pm	Dannyle ECL
Date/Time [signature]	Date/Time 7/21/17 17:25
07/21/17 17:25	

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WORK ORDER NUMBER: 17-07-1438

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Enthalpy Analytical

DATE: 07 / 21 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.3 °C (w/ 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

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A Checked by: 659

Sample(s) ☑ Present and Intact ☐ Present but Not Intact ☐ Not Present ☐ N/A Checked by: 659

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☐	☐	☑
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number:** _____**)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **x** = Na_2SO_3+$NaHSO_4.H_2O$, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 659

Reviewed by: 8/2

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Enthalpy Analytical, LLC

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MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	392946
Address:	33353 Temecula Pkwy.	Report Date:	07/27/2017
	Suite 104 #333	Date Received:	07/26/2017
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
392946-001	S67EXC West Wall
392946-002	S67 EXC South Wall
392946-003	S68 EXC North Wall
392946-004	S68 EXC South Wall

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/26/2017 10:50	**Site:**			
Sample #:	**392946-001**	**Client Sample #:**	S67EXC West Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180976	
Lead	**23.1**	1	0.32	0.5	mg/Kg	07/26/17	07/27/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/26/2017 11:00	**Site:**			
Sample #:	**392946-002**	**Client Sample #:**	S67 EXC South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180976	
Lead	**93.6**	1	0.32	0.5	mg/Kg	07/26/17	07/27/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/26/2017 11:20	**Site:**			
Sample #:	**392946-003**	**Client Sample #:**	S68 EXC North Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180976	
Lead	**96.8**	1	0.32	0.5	mg/Kg	07/26/17	07/27/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/26/2017 11:30	**Site:**			
Sample #:	**392946-004**	**Client Sample #:**	S68 EXC South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1180976	
Lead	**56.1**	1	0.32	0.5	mg/Kg	07/26/17	07/27/17	JN	

QCBatchID: QC1180976	Analyst: kedy	Method: EPA 6010B
Matrix: Solid	Analyzed: 07/26/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1180976MB1					
Antimony	ND	mg/Kg	0.37	3	
Arsenic	ND	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	**1.05**	mg/Kg	0.31	1	
Lead	**0.33 J**	mg/Kg	0.32	0.5	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	**0.51 J**	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180976LCS1											
Antimony	100		91.2		mg/Kg	91			80-120		
Arsenic	100		93.0		mg/Kg	93			80-120		
Barium	100		102		mg/Kg	102			80-120		
Beryllium	100		93.0		mg/Kg	93			80-120		
Cadmium	100		97.8		mg/Kg	98			80-120		
Chromium	100		97.2		mg/Kg	97			80-120		
Cobalt	100		101		mg/Kg	101			80-120		
Copper	100		103		mg/Kg	103			80-120		
Lead	100		101		mg/Kg	101			80-120		
Molybdenum	100		98.5		mg/Kg	99			80-120		
Nickel	100		102		mg/Kg	102			80-120		
Selenium	100		90.4		mg/Kg	90			80-120		
Silver	100		91.3		mg/Kg	91			80-120		
Thallium	100		90.6		mg/Kg	91			80-120		
Vanadium	100		101		mg/Kg	101			80-120		
Zinc	100		101		mg/Kg	101			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180976MS1, QC1180976MSD1												**Source: 392946-001**
Antimony	2.70	100	100	25.4	27.1	mg/Kg	23	24	6.5	75-125	20	M
Arsenic	9.89	100	100	94.2	94.8	mg/Kg	84	85	0.6	75-125	20	
Barium	113	100	100	194	192	mg/Kg	81	79	1.0	75-125	20	
Beryllium	ND	100	100	86.4	85.7	mg/Kg	86	86	0.8	75-125	20	
Cadmium	0.34	100	100	81.5	83.5	mg/Kg	81	83	2.4	75-125	20	
Chromium	23.9	100	100	106	109	mg/Kg	82	85	2.8	75-125	20	
Cobalt	11.3	100	100	93.1	95.5	mg/Kg	82	84	2.5	75-125	20	
Copper	21.8	100	100	109	115	mg/Kg	87	93	5.4	75-125	20	
Lead	23.1	100	100	108	109	mg/Kg	85	86	0.9	75-125	20	

QCBatchID: QC1180976	Analyst: kedy	Method: EPA 6010B
Matrix: Solid	Analyzed: 07/26/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180976MS1, QC1180976MSD1											**Source:**	**392946-001**
Molybdenum	0.38	100	100	82.8	84.4	mg/Kg	82	84	1.9	75-125	20	
Nickel	12.6	100	100	99.6	102	mg/Kg	87	89	2.4	75-125	20	
Selenium	ND	100	100	83.5	83.9	mg/Kg	84	84	0.5	75-125	20	
Silver	ND	100	100	78.0	80.0	mg/Kg	78	80	2.5	75-125	20	
Thallium	ND	100	100	74.3	75.9	mg/Kg	74	76	2.1	75-125	20	M
Vanadium	44.1	100	100	126	127	mg/Kg	82	83	0.8	75-125	20	
Zinc	94.5	100	100	176	178	mg/Kg	82	84	1.1	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.		Chain of Custody Record	Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave, Orange, CA 92868	ENTHALPY analytical, inc.	Lab No: 392946	Standard:		4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714)771-9933		Page: of	2 Day:		1 Day:	X	Same Day:	
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614		**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group	Name:	
Report To:	SKYE GREEN	Number:	
Email:	Sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Parkway Suite 104	Address:	
	#333 Temecula CA. 92592		
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	Enox Hernandez

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead									Test Instructions / Comments
1	567 EXC West wall	07-26-17	10:50	S	1		X									
2	567 EXC South wall	07-26-17	11:00	↓	↓		↓									
3	568 EXC NORTH wall	07-26-17	11:20													
4	568 EXC South wall	07-26-17	11:30													
5																
6																
7																
8																
9																
10																

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Enox Hernandez	Enox Hernandez	CES	07-26-17 13:20
1 Received By:	[illegible]	E. Hernandez	EA	7/26/17 13:20
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES Project: _____

Date Received: 07/26/17 Sampler's Name Present: ☑ Yes ☐ No

Sample(s) received in a cooler? ☐ Yes, How many? _____ ☑ No (skip section 2) Sample Temp (°C): 26.7

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 2

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)		✓	
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/26/17

Enthalpy Analytical, LLC

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Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	393075
Address:	33353 Temecula Pkwy. Suite 104 #333 Temecula, CA 92592	Report Date:	08/02/2017
		Date Received:	08/01/2017
		Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
393075-001	S67- A- Exc Bottom Grant HS
393075-002	S67- A- Exc South Wall
393075-003	S68- B- Exc North Wall
393075-004	S68- B- Exc Bottom

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/31/2017 12:50	**Site:**			
Sample #:	**393075-001**	**Client Sample #:**	S67- A- Exc Bottom Grant HS	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181142	
Lead	**133**	1	0.32	0.5	mg/Kg	08/01/17	08/02/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/31/2017 12:55	**Site:**			
Sample #:	**393075-002**	**Client Sample #:**	S67- A- Exc South Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181142	
Lead	**130**	1	0.32	0.5	mg/Kg	08/01/17	08/02/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/31/2017 13:05	**Site:**			
Sample #:	**393075-003**	**Client Sample #:**	S68- B- Exc North Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181142	
Lead	**260**	1	0.32	0.5	mg/Kg	08/01/17	08/02/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	07/31/2017 13:00	**Site:**			
Sample #:	**393075-004**	**Client Sample #:**	S68- B- Exc Bottom	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181142	
Lead	**77.4**	1	0.32	0.5	mg/Kg	08/01/17	08/02/17	JN	

QCBatchID:	QC1181142	Analyst:	dswafford	Method:	EPA 6010B
Matrix:	Solid	Analyzed:	08/01/2017	Instrument:	AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1181142MB1					
Lead	ND	mg/Kg	0.32	0.5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181142LCS1											
Lead	100		103		mg/Kg	103			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181142MS1, QC1181142MSD1												**Source: 393075-001**
Lead	133	100	100	220	215	mg/Kg	87	82	2.3	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave, Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 393075 Page: of	Standard: 4 Day: 3 Day: 2 Day: 1 Day: X Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES Group.	Name:	
Report To:	SKYE Green	Number:	
Email:	Sgreen@Cesgroup.co	P.O. #:	
Address:	33353 temecula Pkwy	Address:	
	Ste 104 #333 temecula CA 92592		
Phone:	714-398 6363.	Global ID:	
Fax:	951 848 9812.	Sampled By:	

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Lead	Arsenic								Test Instructions / Comments
1	567.A. Exc. bottom Grant HS	07/31/17	12:50	S	1	✓	X									
2	567.A. Exc. South. wall	07/31/17	12:55	↓	↓	↓	X									
3	568.B. Exc. north. wall	07/31/17	13:05	↓	↓	↓	X									
4	568.B. Exc. bottom	07/31/17	13:00	↓	↓	↓	X									
5																
6																
7																
8																
9																
10																

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Enox Hernandez	Enox Hernandez		8/1/17 11:51
1 Received By:		ZAID PADILLA	EA/SCGL	8/1/17 11:51.
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES Group Project: _____

Date Received: 8/1/17 Sampler's Name Present: ☐ Yes ☑ No

Sample(s) received in a cooler? ☐ Yes, How many? _____ ☑ No (skip section 2) Sample Temp (°C): 19.7

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 2

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)		✓	
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: _____

Enthalpy Analytical, LLC

931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	CES Group, Inc.	Lab Request:	393231
Address:	33353 Temecula Pkwy.	Report Date:	08/07/2017
	Suite 104 #333	Date Received:	08/04/2017
	Temecula, CA 92592	Client ID:	15581
Attn:	Skye Green		

Comments: Grant HS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
393231-001	574 EXC North Wall
393231-002	574 EXC Bottom
393231-003	572 EXC North Wall

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	08/04/2017 10:00	**Site:**			
Sample #:	**393231-001**	**Client Sample #:**	574 EXC North Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181288	
Lead	**47.6**	1	0.32	0.5	mg/Kg	08/04/17	08/07/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	08/04/2017 10:05	**Site:**			
Sample #:	**393231-002**	**Client Sample #:**	574 EXC Bottom	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181288	
Lead	**5.10**	1	0.32	0.5	mg/Kg	08/04/17	08/07/17	JN	

Matrix:	Solid	**Client:**	CES Group, Inc.	**Collector:**	Client
Sampled:	08/04/2017 10:15	**Site:**			
Sample #:	**393231-003**	**Client Sample #:**	572 EXC North Wall	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B						QCBatchID:	QC1181288	
Lead	**70.4**	1	0.32	0.5	mg/Kg	08/04/17	08/07/17	JN	

QCBatchID: QC1181288	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 08/04/2017	Instrument: AAICP (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1181288MB1					
Aluminum	ND	mg/Kg	0.53	5	
Antimony	ND	mg/Kg	0.37	3	
Arsenic	**0.54 J**	mg/Kg	0.36	1	
Barium	ND	mg/Kg	0.23	1	
Beryllium	ND	mg/Kg	0.17	0.5	
Cadmium	ND	mg/Kg	0.21	0.5	
Chromium	ND	mg/Kg	0.13	1	
Cobalt	ND	mg/Kg	0.19	0.5	
Copper	ND	mg/Kg	0.31	1	
Lead	**0.48 J**	mg/Kg	0.32	0.5	
Manganese	ND	mg/Kg	0.14	1	
Molybdenum	ND	mg/Kg	0.13	1	
Nickel	ND	mg/Kg	0.2	1.5	
Selenium	ND	mg/Kg	0.72	1	
Silver	ND	mg/Kg	0.13	0.5	
Thallium	ND	mg/Kg	0.42	1	
Titanium	ND	mg/Kg	0.26	1	
Vanadium	ND	mg/Kg	0.37	0.5	
Zinc	ND	mg/Kg	0.28	5	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181288LCS1											
Antimony	100		94.2		mg/Kg	94			80-120		
Arsenic	100		94.0		mg/Kg	94			80-120		
Barium	100		102		mg/Kg	102			80-120		
Beryllium	100		99.1		mg/Kg	99			80-120		
Cadmium	100		95.2		mg/Kg	95			80-120		
Chromium	100		95.1		mg/Kg	95			80-120		
Cobalt	100		98.9		mg/Kg	99			80-120		
Copper	100		105		mg/Kg	105			80-120		
Lead	100		96.6		mg/Kg	97			80-120		
Molybdenum	100		98.2		mg/Kg	98			80-120		
Nickel	100		102		mg/Kg	102			80-120		
Selenium	100		92.4		mg/Kg	92			80-120		
Silver	100		90.2		mg/Kg	90			80-120		
Thallium	100		94.7		mg/Kg	95			80-120		
Vanadium	100		102		mg/Kg	102			80-120		
Zinc	100		96.3		mg/Kg	96			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181288MS1, QC1181288MSD1												**Source: 393227-001**
Antimony	ND	100	100	79.6	78.4	mg/Kg	80	78	1.5	75-125	20	
Arsenic	2.46	100	100	98.5	104	mg/Kg	96	102	5.4	75-125	20	
Barium	9.40	100	100	112	116	mg/Kg	103	107	3.5	75-125	20	
Beryllium	ND	100	100	104	104	mg/Kg	104	104	0.0	75-125	20	
Cadmium	ND	100	100	90.3	94.9	mg/Kg	90	95	5.0	75-125	20	
Chromium	3.67	100	100	96.4	101	mg/Kg	93	97	4.7	75-125	20	

QCBatchID: QC1181288	Analyst: dswafford	Method: EPA 6010B
Matrix: Solid	Analyzed: 08/04/2017	Instrument: AAICP (group)

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181288MS1, QC1181288MSD1												**Source: 393227-001**
Cobalt	1.38	100	100	94.9	100	mg/Kg	94	99	5.2	75-125	20	
Copper	2.79	100	100	105	109	mg/Kg	102	106	3.7	75-125	20	
Lead	5.16	100	100	99.8	104	mg/Kg	95	99	4.1	75-125	20	
Molybdenum	0.91	100	100	95.9	102	mg/Kg	95	101	6.2	75-125	20	
Nickel	4.27	100	100	104	110	mg/Kg	100	106	5.6	75-125	20	
Selenium	0.84	100	100	95.5	99.9	mg/Kg	95	99	4.5	75-125	20	
Silver	ND	100	100	88.6	92.4	mg/Kg	89	92	4.2	75-125	20	
Thallium	1.25	100	100	91.2	96.9	mg/Kg	90	96	6.1	75-125	20	
Vanadium	6.14	100	100	107	112	mg/Kg	101	106	4.6	75-125	20	
Zinc	10.8	100	100	103	109	mg/Kg	92	98	5.7	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave, Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 393231 Page: of	Standard: 4 Day: 3 Day: 2 Day: 1 Day: X Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

ENTHALPY analytical, inc.

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CES GROUP	Name:	
Report To:	SKYE GREEN	Number:	
Email:	Sgreen@cesgroup.co	P.O. #:	
Address:	33353 Temecula Parkway Suite 104	Address:	
	#333 Temecula CA. 92592		
Phone:	714-398-6363	Global ID:	
Fax:	951-848-9812	Sampled By:	Enox Hernandez

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	LEAD									Test Instructions / Comments
1	574 EXC NORTH Wall	08-04-17	10:00	S	1		X									
2	574 EXC BOTTOM	08-04-17	10:05	S	1		X									
3	572 EXC NORTH Wall	08-04-17	10:15	S	1		X									
4																
5																
6																
7																
8																
9																
10																

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Enox Hernandez	Enox Hernandez	CES	08-04-17 11:30
1 Received By:		C. Hernandez	E.A	8/4/17 11:30
2 Relinquished By:				
2 Received By:				
3 Relinquished By:				
3 Received By:				

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CES Project: _____

Date Received: 08/04/17 Sampler's Name Present: ☑ Yes ☐ No

Sample(s) received in a cooler? ☐ Yes, How many? _____ ☑ No (skip section 2) Sample Temp (°C): 30.0

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 2

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)		✓	
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 8/4/17

Ranjit Clarke

From: Skye Green
Sent: Friday, August 04, 2017 3:40 PM
To: 'Ranjit Clarke'
Subject: RE: Samples collected on 08/04/17 - Grant HS???

Yes, those are for Grant HS. Thanks.

Skye Green, P.E.
CES Group, Inc.
CES/Novacom/ERG
951-808-8585 office
714-398-6363 mobile
951-848-9812 fax
sgreen@cesgroup.co
www.cesgroup.co

From: Ranjit Clarke [mailto:ranjit.clarke@enthalpy.com]
Sent: Friday, August 4, 2017 2:03 PM
To: sgreen@cesgroup.co
Subject: Samples collected on 08/04/17 - Grant HS???
Importance: High

Skye,

See attached. Is this from Grant HS or another site? Please confirm.

Thanks,

Ranjit

In accordance with our paperless initiative, we are no longer mailing or faxing reports by default. If you require a hard copy, please inform your Project Manager.

Ranjit Clarke
Senior Project Manager
Enthalpy Analytical
931 W. Barkley Ave., Orange, CA 92868
O: 714-771-9906 / M: 657-274-9864 / F: 714-538-1209
Ranjit.Clarke@enthalpy.com

Appendix B

Soil Safe of California, Inc. **ADE** 131889

12328 Hibiscus Ave. Adelanto, CA 92301

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professional Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest Number: A4-7053 Load #: 1 4/11/2017

Generator Site Information:

ULYSSES GRANT SENIOR HIGH SCHOOL

13000 OXNARD STREET

LOS ANGELES, CA 91335

Weighmaster Weighed at:

SOIL SAFE OF CALIFORNIA, INC..

12328 HIBISCUS AVE

ADELANTO, CA 92301

J Provansal **Time In:** 8:41:17 AM

J Provansal **Time out:** 8:41:19 AM

	Lbs	Tons	
Gross Weight:	31980	15.99	Manual Wt
Tare Weight:	30800	15.40	Manual Wt
Net Weight:	1180	0.59	

Truck Number: 541

Trailer Number: 214

Commodity: Non Haz - Solids

Driver on Gross and Tare Transporter: AIS - BUDDY

Manifest

SOIL SAFE OF CA – TPST
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transport Truck #:	Facility #:	Approval Number:	Load #
	Transporter		A07	47053	001

Generator and/or Consultant

Generator's Name and Billing Address: Los Angeles Unified School District, 333 South Beaudry Ave., 28th Floor, Los Angeles, CA 90017	Generator's Phone #:	
	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)* Ulysses Grant Senior High School, 13000 Oxnard Street, Los Angeles, CA 91335	Site Phone #:	
	Person to Contact:	
	FAX#:	
Designated Facility (Transport to): *(name & address)* Soil Safe, 12328 Hibiscus Rd., Adelanto, CA 92301-1700	Facility Phone #: (500) 552-9001	
	Person to Contact: Joe Provensal	
	FAX#: (760) 246-8004	
Transporter Name and Mailing Address: American Integrated Services, Inc., P.O. Box 92316, Long Beach, CA 90809-2316	Transporter's Phone #: (310) 522-1168	CAR000148338
	Person to Contact: Jennifer Sherman	
	FAX#: (310) 522-0474	Customer Account Number 7704906

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 ❑	2		31980	30800	1180
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑					.59

List any exception to items listed above: AIS Project # 37009-16-3

Scale Ticket # 131559

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 ❑ Andrew Medrano to LAUSD

Signature and date: [signature] Month 4 Day 10 Year 17

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: EDDIE LINO

Signature and date: [signature] Month 4 Day 10 Year 17

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: J. Provensal

Signature and date: [signature] 4-11-17

Please print or type.

TRANSPORTER COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	Not Required	1	888-423-6060	032017015

5. Generator's Name and Mailing Address
Los Angeles Unified School District
333 South Beaudry Ave., Suite 25th Floor
Los Angeles CA 90017
Generator's Phone: 213 241-1000

Generator's Site Address (if different than mailing address)
Ulysses Grant Senior High School
13000 Oxnard Street
Los Angeles CA 91335

6. Transporter 1 Company Name: American Integrated Services Inc — U.S. EPA ID Number: CAR000148338

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. Non-Hazardous Waste Liquid	1	~~DM~~ TT	55	G
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
Wear proper PPE while handling. Weights or volumes are approximate.
Job# 37009-16-3 Profile# 27578

L40842
D144023-
1 drum

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Andrew Madrigno for LAUSD — Signature: [signature] — Month 4 Day 10 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Eddie Lino — Signature: [signature] — Month 4 Day 10 Year 17
Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

H135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: [signature] — Signature: [signature] — Month 4 Day 19 Year 17

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

TRANSPORTER #1

06

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of 1
3. Emergency Response Phone
4. Waste Tracking Number 01

5. Generator's Name and Mailing Address
LOS ANGELES UNIFIED SCHOOL DISTRICT
333 SOUTH BEAUDRY AVE, 21ST FLOOR
LOS ANGELES, CA 90017
Generator's Phone: (213) 241-3433

Generator's Site Address (if different than mailing address)
ULYSSES GRANT SENIOR HIGH SCHOOL
13000 ORNARD STREET, LOS ANGELES, CA 91335

6. Transporter 1 Company Name
RUST AND SONS [illegible] INC
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
SOUTH YUMA COUNTY LANDFILL
19536 S. AVENUE 1 E [illegible] YUMA AZ 85365
U.S. EPA ID Number
Facility's Phone: (619) 520-4429

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit WL/Vol.
1. LEAD IMPACTED SOIL (SOLID)	1	END DUMP	24	TONS
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
WEAR PROPER PPE. APPROVAL # C-4541

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Andrea Medrano FOR LAUSD
Signature: [signature]
Month 08 Day 09 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible]
Signature: [signature]
Month 8 Day 9 Year 17
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Dulcina Nuñez
Signature: [signature]
Month 8 Day 10 Year 17

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

DESIGNATED FACILITY'S COPY

SOUTH YUMA COUNTY LANDFILL

PO BOX 125; Staton, CA 90680-0125
928-341-9300

ACCOUNT#: EXCELL

EXCELL EXCAVATING INC.
P.O. BOX 6167

LAGUNA NIGUEL, CA92607
JOB #: C-4541
HAULER: RUST & SONS
TRUCK LICENSE #:

TRANSACTION INFORMATION

TICKET# : 1206203
DATE IN : 8/10/2017 TIME IN : 09:10 AM
DATE OUT: 8/10/2017 TIME OUT: 09:10 AM

TRUCK # : 06
CONTAINER #:

PLEASE NOTE: Account Customers Only: A State of Arizona per ton landfill fee of $0.25 will be added to your Inv.

REFUSE	WEIGHT IN	WEIGHT OUT	NET WEIGHT
NON -HAZ SOIL	69320 LBS	31580 LBS	18.87 TONS

CUSTOMER SIGNATURE

WEIGHMASTER/DEPUTY

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT AND MEASURE

THIS IS TO CERTIFY that the above described merchandise, was weighed, counted, or measured by the public or deputy weighmaster, and when properly signed, and sealed, shall be prima facie evidence of the accuracy of the weight shown as

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of 1
3. Emergency Response Phone
4. Waste Tracking Number 02

5. Generator's Name and Mailing Address
LOS ANGELES UNIFIED SCHOOL DISTRICT
333 SOUTH BEAUDRY AVE, 21ST FLOOR
LOS ANGELES, CA 90017
Generator's Phone: (213) 241-3433

Generator's Site Address (if different than mailing address)
ULYSSES GRANT SENIOR HIGH SCHOOL
13000 OXNARD STREET, LOS ANGELES, CA 91335

6. Transporter 1 Company Name
RUST AND SONS TRUCKING INC
U.S. EPA ID Number

7. Transporter 2 Company Name
Excel Excounting Lettering
U.S. EPA ID Number

8. Designated Facility Name and Site Address
SOUTH YUMA COUNTY LANDFILL
19536 S. AVENUE 2 E #1E YUMA, AZ 85365
Facility's Phone: (619) 520-4429
U.S. EPA ID Number

9. Waste Shipping Name and Description	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.
1. LEAD IMPACTED SOIL (SOLID)	1	END DUMP	24	TONS
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
WEAR PROPER PPE.
APPROVAL # C-4541

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Generator's/Offeror's Printed/Typed Name: Andrew Madrigno For LAUSD
Signature: [signature]
Month 08 Day 09 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Brandon Templeton
Signature: [signature]
Month 8 Day 9 Year 17
Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Dulliana Munoz
Signature: [signature]
Month 8 Day 9 Year 17

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 8/06)

DESIGNATED FACILITY'S COPY

SOUTH YUMA COUNTY LANDFILL

PO BOX 125; Staton, CA 90680-0125
928-341-9300

ACCOUNT#: EXCELL

EXCELL EXCAVATING INC.
P.O. BOX 6167

LAGUNA NIGUEL, CA92607
JOB #: C-4541
HAULER: EXCELL EXCAVATING INC.
TRUCK LICENSE #:

TRANSACTION INFORMATION

TICKET# : 1206169
DATE IN : 8/9/2017 TIME IN : 04:40 PM
DATE OUT: 8/9/2017 TIME OUT: 04:50 PM

TRUCK # :
CONTAINER #:

PLEASE NOTE: Account Customers Only: A State of Arizona per ton landfill fee of $0.25 will be added to your Inv.

REFUSE	WEIGHT IN	WEIGHT OUT	NET WEIGHT
NON -HAZ SOIL	20120 LBS	12720 LBS	3.70 TONS

CUSTOMER SIGNATURE

WEIGHMASTER/DEPUTY

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT AND MEASURE

THIS IS TO CERTIFY that the above described merchandise, was weighed, counted, or measured by the public or deputy weighmaster, and when properly signed, and sealed, shall be prima facie evidence of the accuracy of the weight shown as

Appendix E-2

Remedial Action Plan

REMEDIAL ACTION PLAN

ULYSSES S. GRANT SENIOR HIGH SCHOOL
13000 Oxnard Street
Los Angeles, California

August 24, 2017

SUBMITTED TO:

OFFICE OF ENVIRONMENTAL HEALTH & SAFETY
Los Angeles Unified School District
333 S. Beaudry Avenue, 21-225-05
Los Angeles, California 92705-5611
Attention: Mr. Andrew Modugno

PREPARED FOR:

LOS ANGELES UNIFIED SCHOOL DISTRICT

PREPARED BY:

Wayne Perry, Inc.
8281 Commonwealth Avenue
Buena Park, California 90621
(714) 826-0352

WPI Project Number: 170700
Master Services Agreetment No. 1790083/4400005519
Work Authorization No. E-308241-1WPI

WARRANTY STATEMENT

This Remedial Action Workplan (RAW) has been prepared by Wayne Perry, Inc. (WPI) for the exclusive use of the Los Angeles Unified School District (LAUSD) Office of Environmental Health and Safety (OEHS), as it pertains to the Ulysses S Grant Senior High School (the Site) located at 13000 Oxnard Street in Los Angeles, California. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists, hydrogeologists, and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report.

If you have questions or require additional information regarding this work plan, please contact Mr. Andrew Modugno at (213) 241-3433, or Mr. Eric Floyd at (714) 720-9796.

REPORT PREPARED BY:
Wayne Perry, Inc.

Thomas G. Faludy, Jr., PMP
Senior Scientist/Project Manager

Eric D. Floyd
California Professional Geologist 7520

August 24, 2017

REGISTERED LICENSED GEOLOGIST
ERIC D. FLOYD
Exp 12/17
NO. 7520
STATE OF CALIFORNIA

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FIGURES

Figure 1 Site Location Map
Figure 2 Plot Plan

EXECUTIVE SUMMARY

Los Angeles Unified School District's (LAUSD's) Ulysses S Grand Senior High School is located at 13000 Oxnard Street in Los Angeles, California (herein referred to as the "Site"). The LAUSD is proposing to redevelop and/or modernize approximately 10 acres of the Site. These activities will require the demolition of several structures and the removal of three clarifiers and three hydraulic vehicle hoists. This Remedial Action Workplan (RAW) provides general procedures for these removals activities and contingency planning for assessing and handling soils that may have been impacted by operation of the clarifiers and hoists.

1.0 INTRODUCTION

This Remedial Action Workplan (RAW) provides procedures to be followed during the removal of three clarifiers and three hydraulic vehicle lifts (lifts) at the Los Angeles Unified School District's (LAUSD's) Ulysses S Grand Senior High School located at 13000 Oxnard Street in Los Angeles, California (herein referred to as the "Site"). These structures were identified as recognized environmental conditions (RECs) by the Phase I Environmental Site Assessment conducted for the Site's planned redevelopment and modernization (CES Group 2017). A Site Location Map is provided as **Figure 1**.

The purpose of this RAW is to provide an overview of procedures for removal of the clarifiers and hoists and to provide detailed contingency procedures that can be used if impacted soil is encountered.

2.0 BACKGROUND

2.1 SITE DESCRIPTION

The Site is currently occupied by an operating high school. It is bounded on the north by Oxnard Street, to the south by Hatteras Street, to the west by Ethel Avenue, and to the east by the Tujunga Wash. It is surrounded by the residential neighborhood of "Valley Glen" (CES 2017).

Prior to the 1920's the Site was used for agriculture and had several residential dwellings. By the early 1960's, the Site was developed with several buildings and playfields indicative of the property being used as a high school (CES 2017).

One of the clarifiers and one of the lifts to be removed are located outside of the former Auto Shop under a awning structure attached to the Auto Shop. The other two lifts are located inside the Auto Shop. Of the remaining two clarifiers, one is located outside Room 300 and services the Arts classrooms. The other clarifier is located outside Room 108 and services the Science classrooms (CES 2017). A Site Plan showing the locations of the former Auto Shop, Room 108, and Room 300 is provided as **Figure 2**.

2.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is located within a region dominated by the Transverse Ranges geomorphic province which is characterized by east-west trending structures that include the Santa Monica Mountains and the San Fernando fault zone (CES 2017).

According to the California Department of Water Resources Bulletin 118, updated in 2003, the Site lies within the San Fernando Valley Groundwater Basin, which includes water-bearing sediments beneath the San Fernando Valley.

2.3 PREFIELD ACTIVITIES

2.3.1 Health and Safety

Prior to the initiation of field activities, a Site specific Health and Safety Plan (HSP) must be prepared that addresses all planned/anticipated activities and considers all anticipated Site contaminants. Appropriate monitoring equipment will be specified as well as symptoms of exposure to potential Site contaminants The HSP will include directions to the nearest hospital and urgent care unit. It will also include contact information for WPI and LAUSD personnel, regulatory agencies and other appropriate resources. All personnel that engage in Site work must be OSHA certified under 29 CFR 1910.120(e)(8),(q)(8) and Cal/OSHA 8 CCR 5192(e)(q).

2.3.2 Permitting

Prior to the initiation of Site activities, the Los Angeles City Department of Public Works and the City of Los Angeles Fire Department should be contacted to determine if clarifier removal permits are required. If the hydraulic reservoir for the hoist(s) is underground, the Los Angeles Fire Department may classify it as an underground storage tank (UST) closure. Note that these agencies may require a Clarifier/Hoist Closure Work Plan.

2.3.3 Utility Location

Excavation boundaries should be marked at the Site in white paint. Underground Service Alert should be contacted at least 48 hours prior to the initiation of excavation to mark all utility locations at the Site. An underground utility locater should be used to ensure that buried utilities are not present in the excavation footprint(s).

3.0 CLARIFIER REMOVAL, ASSESSMENT, AND BACKFILL

An overview of general clarifier removal procedures is provided below.

- Collect a sample of the clarifier contents and analyze it for:
  - Total petroleum hydrocarbons as gasoline (TPH-G, diesel (TPH-D) and oil (TPH-O) by EPA Method 8015;
  - Full-scan volatile organic compounds (VOCs) by EPA Method 8260B;
  - Semi-volatile organic compounds (SVOCs) using EPA Method 8270D;
  - Organochlorine pesticides (OCPs) using EPA Method 8081A; and
  - Polychlorinated Biphenyls (PCBs) using EPA Method 8082A
- Consult LAUSD and/or their designee to determine the required sample turn-around-time. Analytical testing described shall be conducted by an independent State certified analytical laboratory;
- Remove the clarifier contents and pressure wash the inside walls with water.

- Transport the clarifier contents and wash water to an approved off-site disposal/recycling facility.
- Saw cut each clarifier excavation perimeter.
- Break up concrete clarifier into pieces capable of transport and disposal as construction debris at an off-site disposal facility.
- Cap and seal the underground influent and effluent clarifier piping.
- Clean up excavation by removing one foot of soil from sides and bottom.
- Clarifier excavation soil sampling:
    - Soil samples should be collected from a depth of approximately two-feet beneath the excavation floor and beneath the influent and effluent piping connections (3 soil samples from each clarifier location).
    - One composite sample should be collected from the soil stockpile for every 10 cubic yards of stockpiled soil.
- Clarifier soil sample analysis:
    - TPH-G, TPH-D and TPH-O using EPA Method 8015;
    - Full-scan VOCs by EPA Method 8260B;
    - OCPs using EPA Method 8081A;
    - Polychlorinated Biphenyls (PCBs) using EPA Method 8082A;
    - Lead using EPA 6010B (wet extraction; if needed STLC);
    - Arsenic using EPA 6020; and
    - Title 22 CAM Metals.
    - Note that all soil samples designated for volatile analyses must be preserved in the field using the EPA 5035 protocol.
- Backfill – Pending permission from LAUSD and/or their designee, use LAUSD-approved backfill material and compact to grade per grading plan.

4.0 HOIST REMOVALS, ASSESSMENT, AND BACKFILL

An overview of general procedures for the hoist removals is provided below.

- Remove and containerize any hydraulic fluid remaining in lifts, reservoirs, and/or conveyance piping.
- Saw cut the perimeter of each hoist excavation.
- Rinse any underground hydraulic fluid piping and containerize the rinse water.
- Excavate each hoist and remove.
- Break up any concrete pad found beneath the hoists into pieces capable of being transported and disposed of as construction debris at an off-site disposal facility.

- Clean up each hoist excavation by removing one foot of soil from the sides and bottom.
- Collect one soil sample from approximately two-feet beneath the bottom of each hoist excavation. Analyze these samples for:
    - TPH-O using EPA Method 8015;
    - Polychlorinated Biphenyls (PCBs) using EPA Method 8082A;
- Collect one composite sample from the hoist excavation soil stockpile and analyze it for Title 22 CAM Metals.
- The hoists, reservoirs, and piping should be transported and disposed of at an appropriate off-site disposal/recycling facility.
- Backfill – Pending permission from LAUSD and/or their designee, use LAUSD-approved backfill material and compact to grade per grading plan.

5.0 CONTINGENCY - REMEDIAL ACTION

In the event that chemically impacted soils are observed/ detected during removal of the clarifiers or hoists at the Site, the LAUSD project manager should be notified immediately. The OEHS and/or their designee will direct the removal/excavation contractor to remove and stockpile impacted soil(s) in accordance with appropriate permits and established procedures. Typically, impacted soil is segregated and stockpiled by placing it on and covering it with visqueen plastic sheeting.

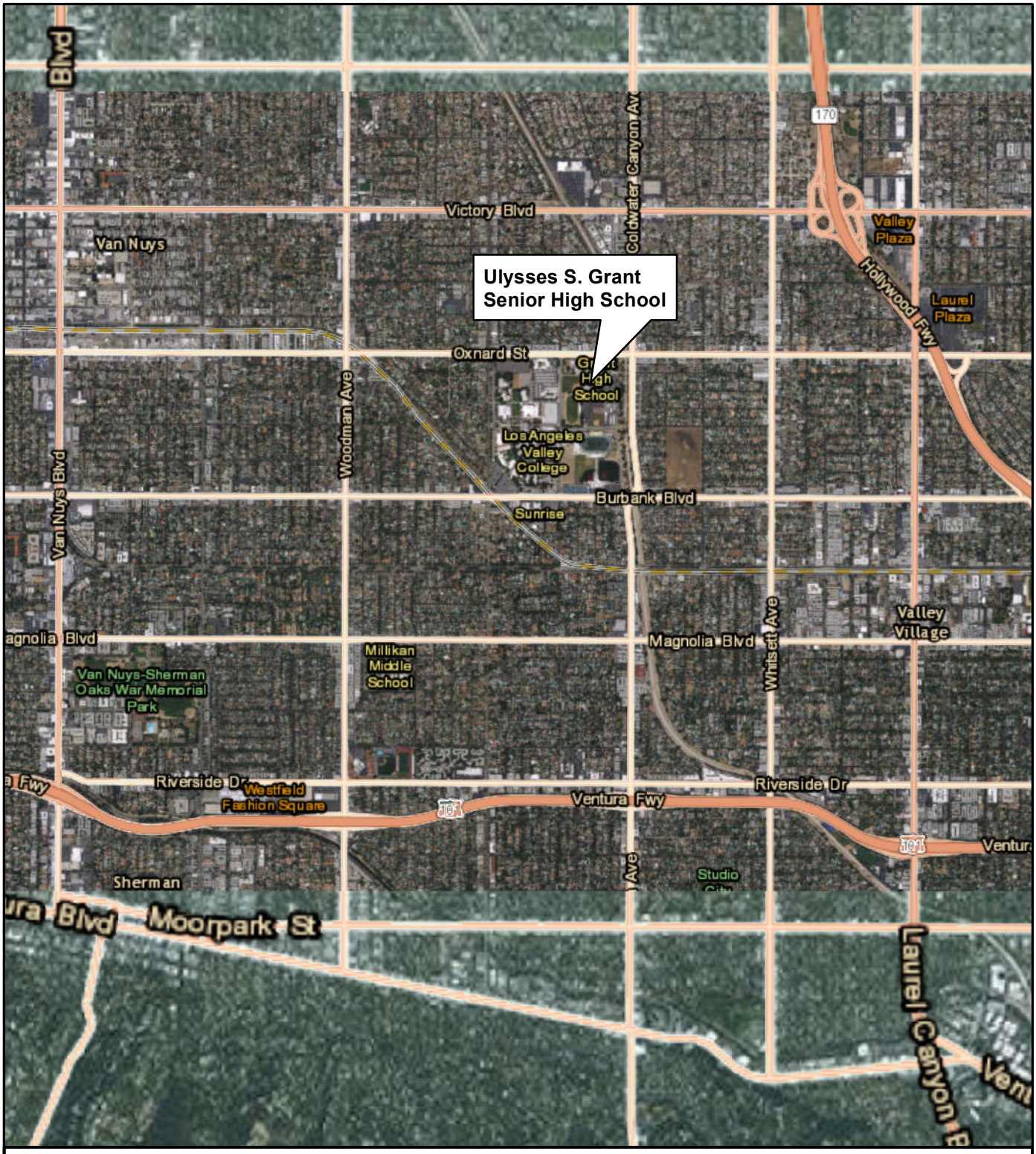
Confirmation soil samples will be required from the excavation. These samples will be obtained from the excavation bottom and sidewalls. All samples collected from an excavation must be obtained with the backhoe (personnel are not to enter an excavation for any reason). A 2 x 6 inch brass sleeve should be forced into soil from the toe of the backhoe bucket until it is completely filled. Once filled, each end of the tube should be covered with Teflon sheets and sealed with plastic end-caps. The sample tube should be labeled with a unique number and recorded on a chain-of-custody form. It should then be sealed in a plastic bag and immediately placed in an ice-chilled cooler. Soil samples designated for volatile analyses must be preserved in the field using the EPA 5035 protocol. All sample locations must be noted on a field map.

Sampling equipment should be washed with an approved non-phosphate detergent and water, double-rinsed, and air dried prior to sample collection and between each sample location.

If results from the analyses of these samples indicate that all impacted soil has been removed, the excavation can be backfilled and compacted to grade per the grading plan with permission from LAUSD and/or their designee.

Impacted soils removed from the excavation must be sampled and profiled for off-site disposal/recycling. The selection of the off-site disposal/recycling facility must be coordinated with and pre-approved by LAUSD.

FIGURES



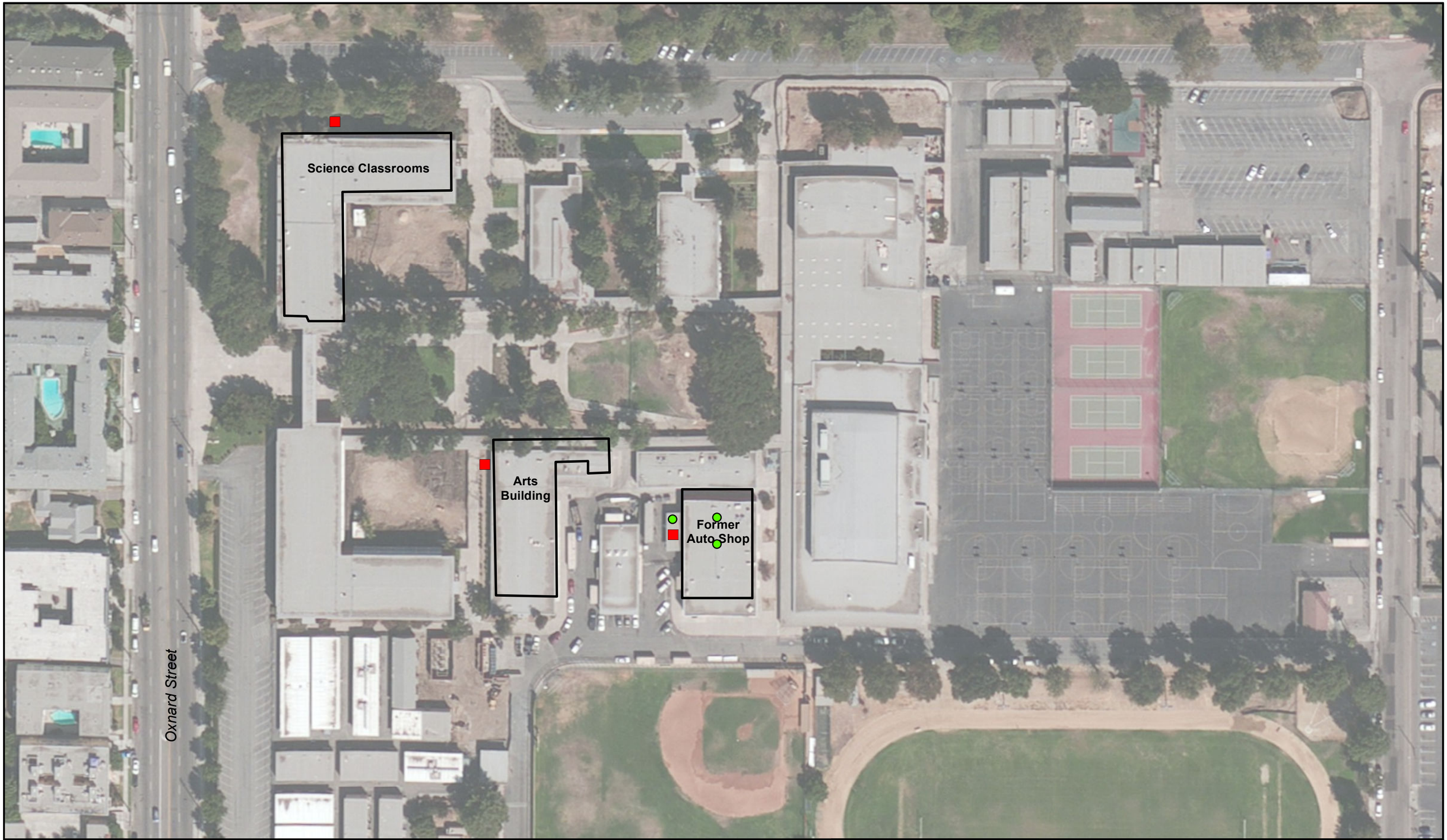
Aerial Imagery from ESRI Online Map Service 2017

N

0 0.5 mile

Scale is Approximate

WaynePerry CONSULTING - CONSTRUCTION SINCE 1968 ENGINEERING - MAINTENANCE	REVISED	Site Location Map	FIGURE NO. 1
	FILE	Ulysses S. Grant High School 13000 Oxnard Street Los Angeles, California	PROJECT NO. 170700



LEGEND

- Approximate Location of Lift To Be Removed
- Approximate Location of Clarifier To Be Removed

0 100 FEET
SCALE

DATE	Plot Plan	FIGURE NO.	2
REVISED 8/24/2017	Ulysses S. Grant High School 13000 Oxnard Street Los Angeles, California		
FILE PlotPlan.mxd		PROJECT NO.	170700

Path: C:\Projects\WPI\LAUSD-GrantHS\PlotPlan.mxd

Appendix F

Noise and Vibration Impact Analysis

NOISE REPORT

FOR THE

ULYSSES S. GRANT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

LOS ANGELES UNIFIED SCHOOL DISTRICT
LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

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OCTOBER 2017

NOISE REPORT

FOR THE

ULYSSES S. GRANT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

LOS ANGELES UNIFIED SCHOOL DISTRICT
LOS ANGELES COUNTY, CALIFORNIA

Los Angeles Unified School District, OEHS
333 S. Beaudry Avenue 21st Floor
Los Angeles, CA 90017

October 2017

Prepared by: _____ Date: OCTOBER 11, 2017
UltraSystems Environmental Inc.

Reviewed by: _____ Date: 10-11-17
UltraSystems Environmental Inc.

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APPENDICES

Appendix A Noise Measurement Field Data Forms and Noise Meter Output Files

1.0 INTRODUCTION

1.1 Context

This noise and vibration technical study was prepared by UltraSystems to support an Initial Study (IS) and Mitigated Negative Declaration (MND) for the Ulysses S. Grant (Grant) High School Comprehensive Modernization Project (Project) in the city of Los Angeles, California. The Project includes renovation, modernization, and reconfiguration of facilities throughout the campus, including demolition of existing facilities, construction of new facilities, site upgrades and accessibility improvements on the 32.4-acre site. Construction activities are anticipated to begin in early January 2019 and completed in late December 2021.

Ongoing master planning activities and facility site assessments conducted for Los Angeles Unified School District (LAUSD) facilities over the last several years have identified school sites throughout the District that exhibit critical physical conditions. The School Upgrade Program (SUP) implemented by the LAUSD outlines a series of capital improvements intended to rehabilitate and modernize these schools so they are safe, healthy, and functional places to learn.

The LAUSD prepared an Environmental Impact Report (EIR) (SCH No. 2013111046) at the program level of detail to evaluate the direct and indirect environmental effects of the SUP. The SUP EIR (Program EIR [PEIR]) was certified as adequate by the LAUSD Board of Education on November 10, 2015. As provided in § 15168 of the State California Environmental Quality Act (CEQA) Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR provides the LAUSD (as lead agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures, and provides the LAUSD with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.

Subsequent activities within the program are evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope, and additional environmental documents may not be required.[1] When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate any feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities.[2]

1.2 PEIR Noise Summary

Table 1.2-1 summarizes the PEIR's conclusions regarding noise and vibration impacts of the SUP.

1 14 CCR Section 15168(c).
2 14 CCR Section 15168(c)(3)

Table 1.2-1
NOISE AND VIBRATION IMPACTS IDENTIFIED IN THE PEIR

No.	Environmental Threshold	Level of Impact Significance	Potential Impacts Identified in the PEIR	Applicable SCAs	Mitigation Measures
1	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.	Potentially Significant	Noise impacts may occur from new or an increased number of sports events, use of athletic fields, and parking. The location of schools in residential neighborhoods makes it difficult to reduce exposures to less than significant levels, even with the methods prescribed in SC-N-4.	SC-N-4	Given the proximity of sensitive receivers, it may not be practical to reduce exposures further after implementing SC-N-4.
2	Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.	Potentially Significant	School operations do not involve sources that cause substantial ground-borne vibration. However, certain types of construction activity, such as pile driving and use of explosives for rock blasting—which almost never occurs on school sites—can be annoying and can damage fragile structures. Construction methods other than these two are far less likely to have significant vibration impacts during construction.	SC-N-5 SC-N-6 SC-N-7 SC-N-8	Given the proximity of sensitive receivers, it may not be practical to reduce vibration annoyance and structural damage further after implementing SC-N-5 through SC-N-8.
3	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less Than Significant	Where a project would add 5,000 vehicles per day to local traffic, or cause local traffic to double, traffic noise impacts could occur. However, SUP construction projects would not generate nearly that number of trips on local roadways and would not cause traffic to double.	SC-N-3	No mitigation measures are required.
4	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Potentially Significant	Construction activities associated with the SUP could cause substantial short-term noise from the use of stationary and mobile construction equipment. Exposures to nearby sensitive receivers could exceed local daytime standards, especially when several pieces of construction equipment are operated simultaneously. Even where construction is exempt from local noise limits, the short-term increase in exposures could be significant. Implementation of LAUSD Standard Conditions of	SC-AQ-2 SC-N-5 SC-N-9	If SC-N-9 does not make exposures less than significant, then the noise impacts cannot be fully mitigated.

No.	Environmental Threshold	Level of Impact Significance	Potential Impacts Identified in the PEIR	Applicable SCAs	Mitigation Measures
			Approval will reduce exposures but may not be effective enough to make them less than significant. Individual SUP projects need to be evaluated to determine the significance of construction noise.		
5	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, expose people residing or working in the project area to excessive noise levels. For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.	Less Than Significant	Although several District schools are within two nautical miles of an airport, projects conducted on existing campuses that do not involve acquisition of new property would not need to be reviewed for airport noise. It should also be noted that Education Code Section 17215 does not apply to school sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites. However, exterior and interior (classroom) maximum noise exposure limits would still apply to new construction, such as a classroom, on an existing campus. Implementation of LAUSD SC-N-2 would ensure that interior noise standards related to airport noise are identified and properly addressed prior to project construction. Exterior areas at existing school campuses are already exposed to airport noise, therefore new SUP-related projects would not exacerbate the airport noise.	SC-N-2	No mitigation measures are required.

1.3 Focus of This Report

This report focuses on those noise impacts that the PEIR found to be potentially significant for the SUP in general; the questions to be answered are:

- Do the findings apply in the specific case of the Ulysses S. Grant High School Comprehensive Modernization Project?
- If noise impacts are potentially significant, what combination of standard conditions of approval and project-specific mitigation measures could reduce the impacts to a less than significant level?

2.0 BACKGROUND INFORMATION

2.1 Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted dB scale (dBA) provides this compensation by discriminating against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero (for the average least perceptible sound) to about 130 (for the average human pain level).

The normal range of conversation is between 34 and 66 dBA. Between 70 and 90 dBA, sound is distracting and presents an obstacle to conversation, thinking, or learning. Above 90 dBA, sound can cause permanent hearing loss. Examples of various sound levels in different environments are shown in **Table 2.1-1**.

Table 2.1-1
TYPICAL SOUND LEVELS

Common Sounds	A-Weighted Sound Level in Decibels	Subjective Impression
Oxygen Torch	120	Pain Threshold
Rock Band	110	
Pile Driver at 50 feet	100	Very Loud
Ambulance Siren at 100 feet	90	
Garbage disposal	80	
Vacuum Cleaner at 10 feet	70	Moderately Loud
Air Conditioner at 100 feet	60	
Quiet Urban Daytime	50	
Quiet Urban Nighttime	40	Quiet
Bedroom at Night	30	
Recording Studio	20	Just Audible
	10	Threshold of Hearing
	0	

Sources: Aviation Planning Associates. 1978. Calculations of Maximum A-weighted Sound Levels (dBA) Resulting from Civil Aircraft Operations.

A noise environment consists of a base of steady "background" noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

According to the U.S. Environmental Protection Agency (USEPA 1974), a difference of more than 3 dBA is a perceptible change in environmental noise, while a 5-dBA difference typically causes a

change in community reaction, and an increase of 10 dBA is perceived by people as doubling of loudness, 20 dBA higher is four times as loud; and so forth.

2.2 Noise Measurement Scales

Several rating scales have been developed to analyze adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people depends largely upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- L_{eq}, the equivalent noise level, is an average of sound level over a defined time period (such as 1 minute, 15 minutes, 1 hour or 24 hours). Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.

- L_{90} is a noise level that is exceeded 90 percent of the time at a given location; it is often used as a measure of "background" noise.

- L_{max} is the root mean square (RMS) maximum noise level during the measurement interval. This measurement is calculated by taking the RMS of all peak noise levels within the sampling interval. L_{max} is distinct from the peak noise level, which only includes the single highest measurement within a measurement interval.

- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 4.77-dBA "penalty" added to noise during the hours of 7:00 p.m. to 10:00 p.m., and a 10-dBA penalty added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime (Caltrans 2013). The logarithmic effect of these additions is that a 60-dBA 24-hour L_{eq} would result in a calculation of 66.7 dBA CNEL.

- L_{dn}, the day-night average noise, is a 24-hour average L_{eq} with an additional 10-dBA "penalty" added to noise that occurs between 10 p.m. and 7 a.m. The L_{dn} metric yields values within 1 dBA of the CNEL metric. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

2.3 Noise Attenuation

The noise level from a particular source generally declines as the distance to the receiver increases. Other factors such as the weather and reflecting or shielding also intensify or reduce the noise level at any given location. Typically, a single row of buildings between the receiver and the noise source reduces the noise level by about 5 dBA. The U.S. Department of Housing and Urban Development (HUD) has stated that exterior noise levels can normally be reduced by 15 dBA inside buildings constructed with no special noise insulation (HUD 1985). The USEPA estimates that residences in "warm" climates provide at least 12 dBA of exterior-to-interior noise attenuation with windows open and 24 dBA with windows closed (USEPA 1974).

Noise from traffic on roads depends on the volume and speed of traffic and the distance from the traffic. A commonly used rule of thumb for traffic noise is that for every doubling of distance from the road, atmospheric spreading over "hard" or "soft" sites reduces the noise level by about 3 or 4.5 dBA, respectively. For a stationary source, the noise is reduced by at least 6 dBA for each doubling of distance. Further, because of the logarithmic nature of the dB scale, a doubling of traffic on any given roadway or doubling a stationary source would cause a noise increase of approximately 3 dBA.

3.0 PROJECT DESCRIPTION

3.1 Introduction

As part of the LAUSD SUP,[3] the District plans to implement a Comprehensive Modernization Project at Grant High School in Los Angeles, California. A campus-wide survey of the Grant High School campus found existing structures and mechanical systems to be outdated, requiring rehabilitation or modernization to meet current needs. The campus was originally constructed in 1959. To provide additional capacity for the booming suburban population, portable buildings were added from 1959 to 1964 in the northwest corner of the school site. Additional permanent buildings were constructed in 1964. An additional phase of construction in the southwest corner of the campus occurred from 1987 to 1991. More recently, additional portable classrooms were added to the southeast corner of the campus, encroaching on parking lot in this area of the campus.

The proposed Project would address the deficiencies identified in the campus-wide survey through demolition of structures and systems that are beyond repair; construction of new buildings; improvements to the existing campus building and facilities; upgrades to infrastructure and utilities; and various upgrades to comply with the Americans with Disabilities Act (ADA:42 U.S. Code Chapter 126).

3.2 Project Location

Grant High School is located on a 32.4-acre site at 13000 Oxnard Street in the city of Los Angeles, California. **Figures 3.2-1** and **3.2-2** show the site in its regional and local contexts, respectively. Regional access to the campus is provided by Oxnard Street, which intersects California State Route 170 (Hollywood Freeway) approximately one mile to the northeast, while local access is provided by a series of residential collectors including Lancer Lane to the east, Hatteras Street to the south, and Ethel Avenue to the west.

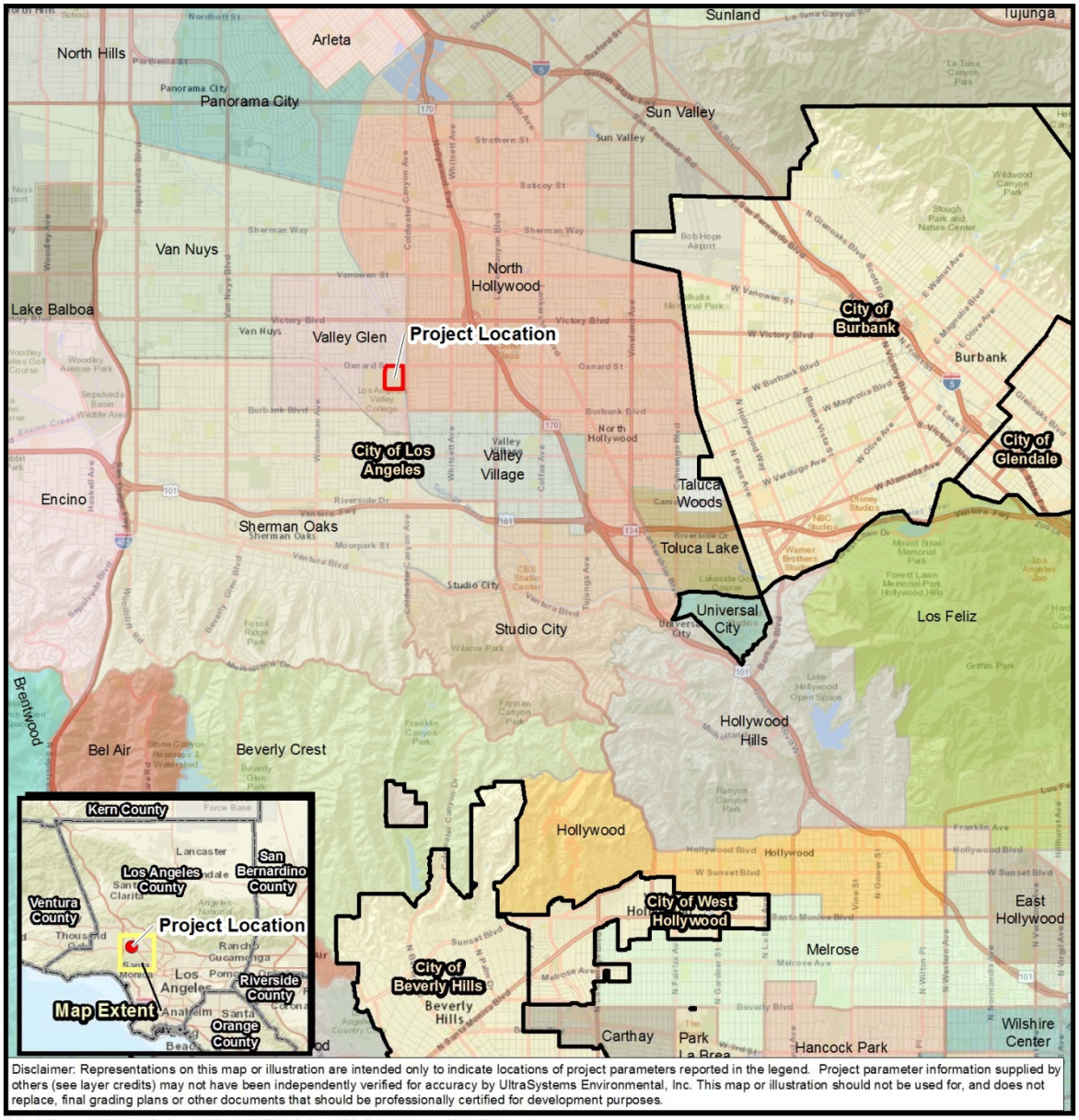
3.3 Campus Setting

The campus is organized around five Small Learning Communities and also houses a Communications Technology Magnet Center, the Jack London Continuation High School, and a Community Day School. **Figure 3.3-1** shows a site plan of the existing facilities. The campus contains 53 buildings, of which 28 are permanent and 25 are portable classrooms; the school has a combined 77 classrooms with capacity to accommodate 2,714 students.

The core campus is composed of one- and two-story permanent buildings clad in brick, dating to 1958 and 1959. The permanent buildings are located around a rectangular lawn, mostly in the northeast quadrant of the campus and include classrooms, administration, library, gymnasium, food service/multipurpose room, operations and maintenance and a lunch shelter. Clusters of one-story portable buildings dating from 1935 to 1991 are located in the northwest and southeast corners of the campus. Other facilities include a garden plot in the northwest corner of the campus; a track and softball field on the west side; and an asphalt playground, tennis courts, and practice field south of the gym. Several mature trees with invasive roots are located on campus. Mature trees and well-kept landscaping within the quad and around the perimeter of the campus enhance the appearance of the school.

3 LAUSD. 2015. Program EIR for the School Upgrade Program. Available at: http://achieve.lausd.net/ceqa.

Figure 3.2-1
REGIONAL LOCATION OF PROJECT



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August 31, 2016
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community; LA County Assessor, 2015-2016; LA County, 2013/2015; UltraSystems Environmental, Inc., 2016

Grant High School Comprehensive Modernization Project

Project Vicinity

Scale 1:95,040

N

Legend

Grant High School Parcel Boundary

City Boundary

0 0.75 1.5 Miles

0 0.75 1.5 Kilometers

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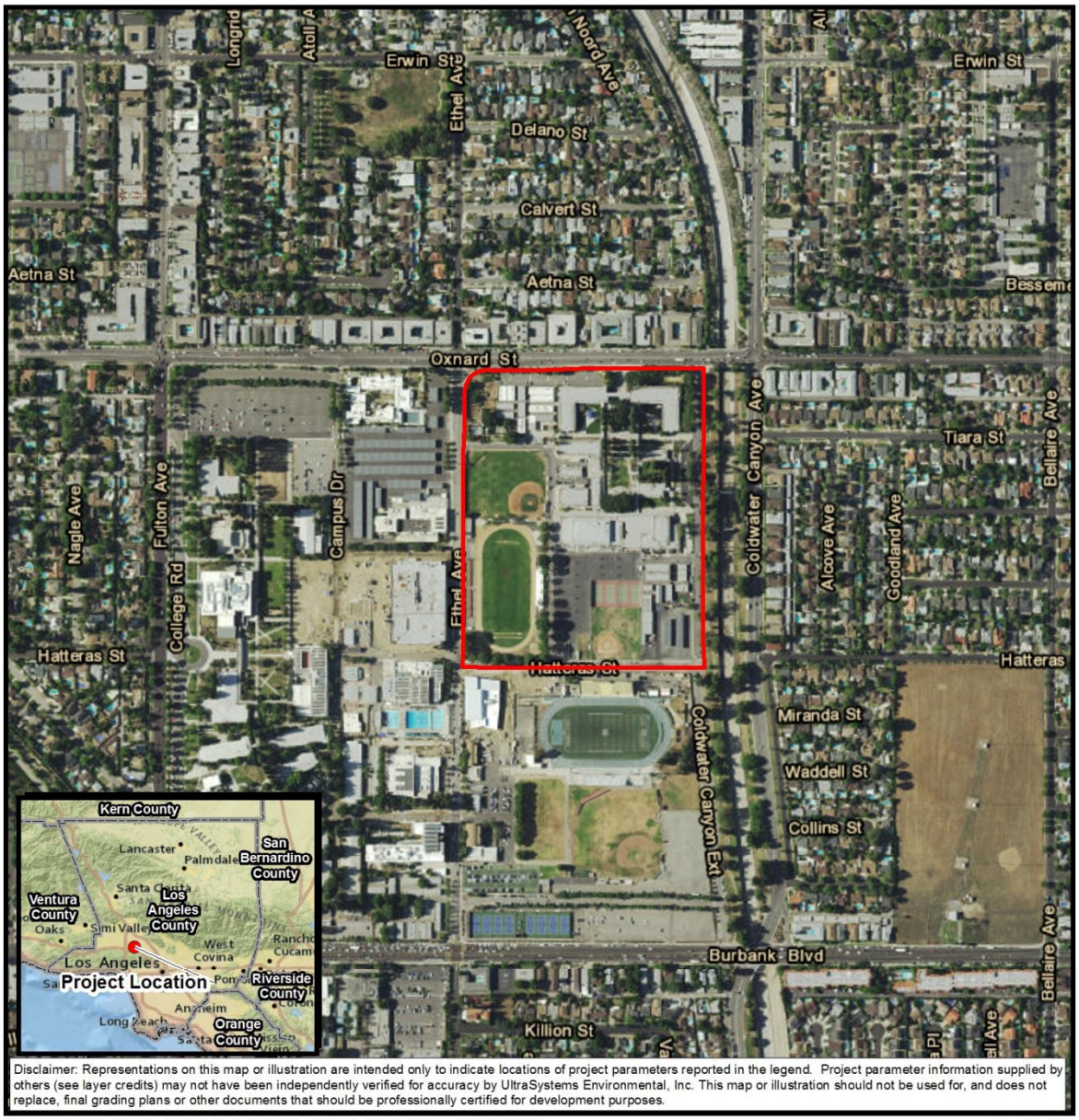
Figure 3.2-2
PROJECT LOCATION



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Path: J:\Projects\6013_LAUSD_Grant\MXDs\IS_MND\6013_Grant_2.0_Project_Location_2016_08_31.mxd

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August 31, 2016

Grant High School Comprehensive Modernization Project

Project Location

Scale 1:7,200

N

Legend

Grant High School Parcel Boundary

0 300 600 Feet

0 100 200 Meters

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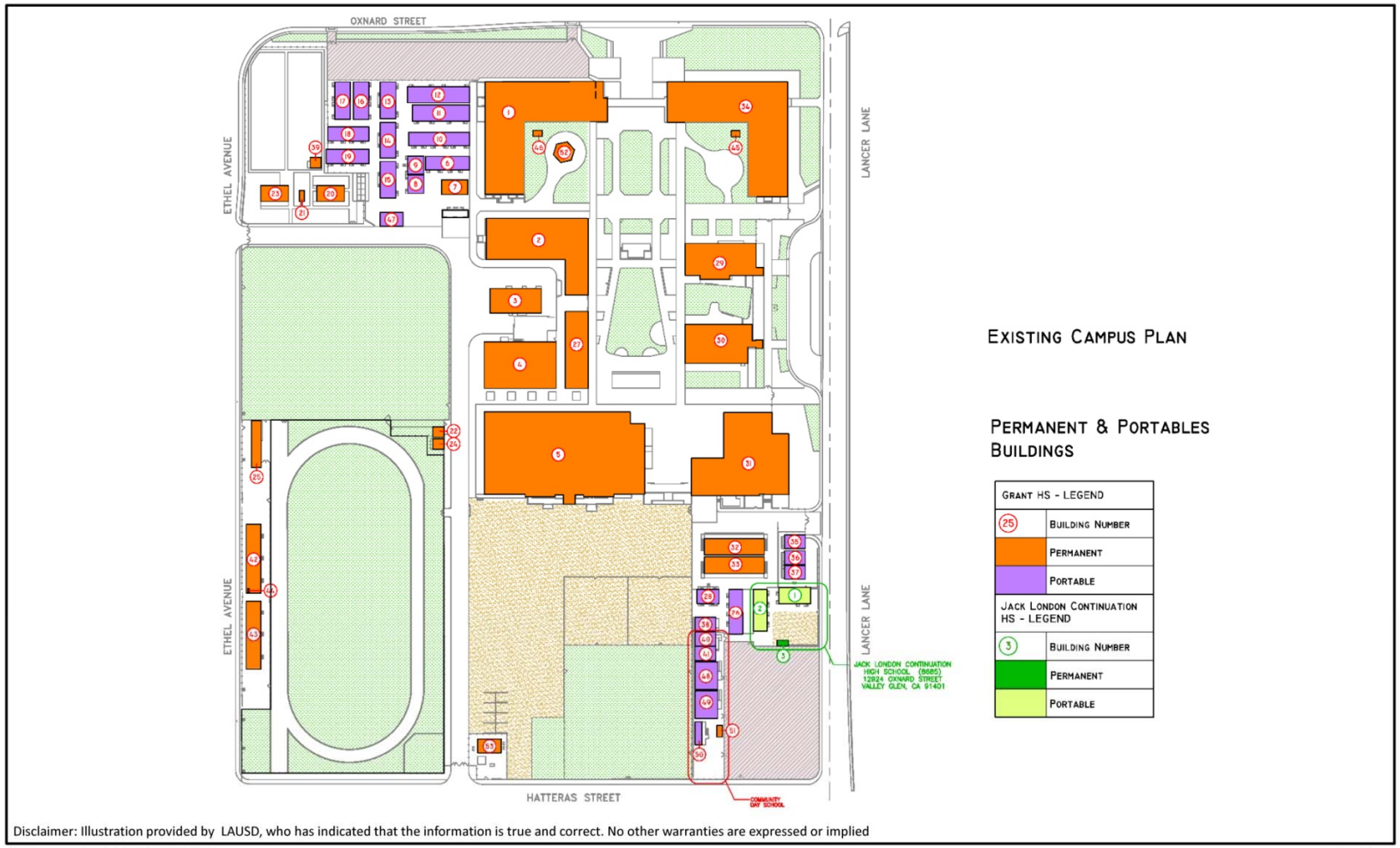
Figure 3.3-1
SITE PLAN



Disclaimer: Illustration provided by LAUSD, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: LAUSD. September 8, 2011

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Grant High School
Comprehensive Modernization Project
Existing Campus Plan

Main entry to the campus is provided from Lancer Lane located on the east side of the campus. Parking is available along the east side of Lancer Lane. School parking lots are located in the southeast corner with access from Hatteras Street, and in the northern part of the campus, along Oxnard Boulevard.

3.4 Description of Proposed Project

3.4.1 Purpose and Objectives

The purpose of the Grant High School Comprehensive Modernization Project (Project) is to provide facilities that are safe, secure, and aligned with the instructional program of Grant High School. The Project would not result in an increase in capacity or enrollment at the Grant High School campus. The Project would be completed under LAUSD's SUP. The goals of the Project are consistent with the SUP's goal to build, modernize, and repair school facilities to improve student health, safety, and educational quality.[4] The Project is designed to address the most critical physical concerns of the buildings and grounds at the campus, while providing renovation, modernization, and reconfiguration to facilities that are consistent with the Project definition for Grant High School.

3.4.2 Planned Improvements

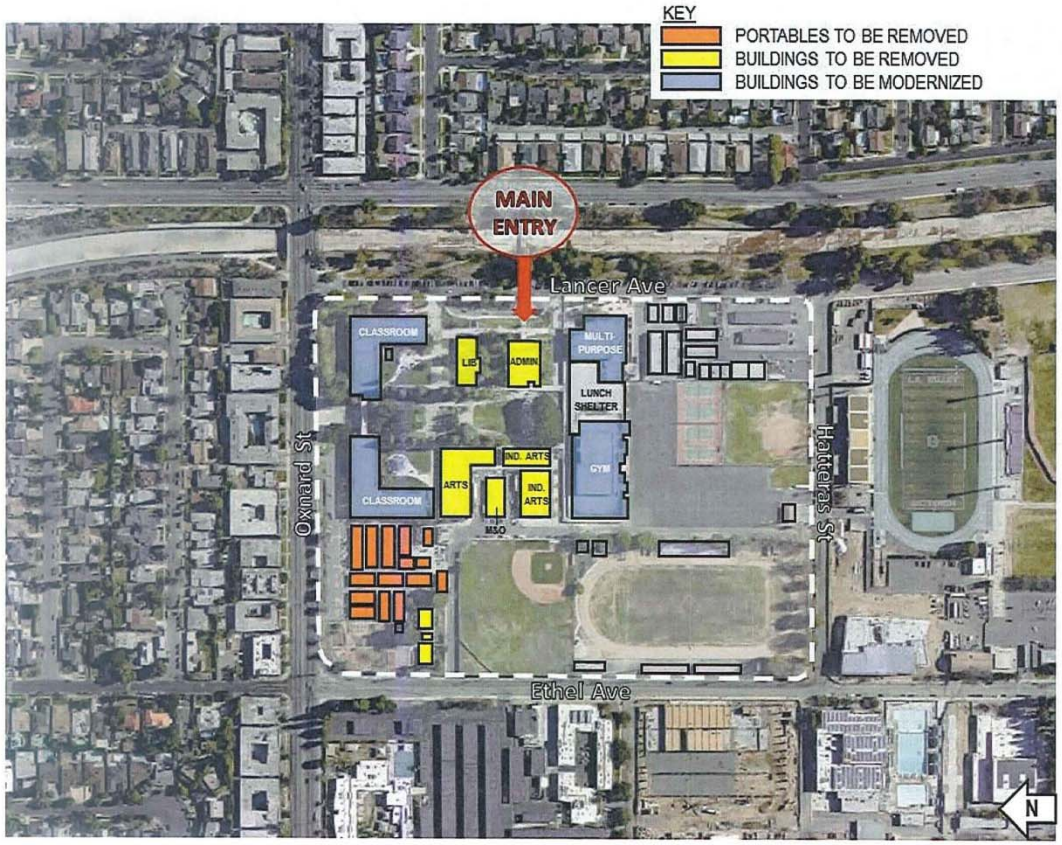
The major project components include (1) demolition of various buildings, (2) construction of new buildings, (3) upgrades to facilities throughout the campus, and (4) improvements to comply with federal, State and local facilities requirements**. Figure 3.4-1** shows a site plan of the Project improvements, while **Figure 3.4-2** shows the site plan at the end of the modernization program. **Table 3.4-1** and **Table 3.4-2** summarize the planned improvements to the campus. Each activity is described in greater detail following the table.

Table 3.4-1
SUMMARY OF PROPOSED CHANGES TO CAMPUS

Activity	Number of Classrooms	Square Footage
Demolition	(39)	(87,298)
New	31	88,271
Remodeled	49	142,081
Existing /No Change	13	58,880
Total Post Project	**93**	**289,232**
Total (Lost) / Gained	**(8)**	**973**

4 LAUSD's School Upgrade Program, Certified Program Environmental Impact Report, November 10, 2015.

Figure 3.4-1
PLANNED PROJECT ACTIONS



Proposed Scope of Work

- **Building Upgrades**
  - Gymnasium
  - Classroom Buildings
  - Multi-Purpose Building
- **New Building(s) to be Constructed**
  - Classrooms
  - Administration/Library Building
- **Site Work**
  - Parking
  - Student drop off
  - Site Infrastructure

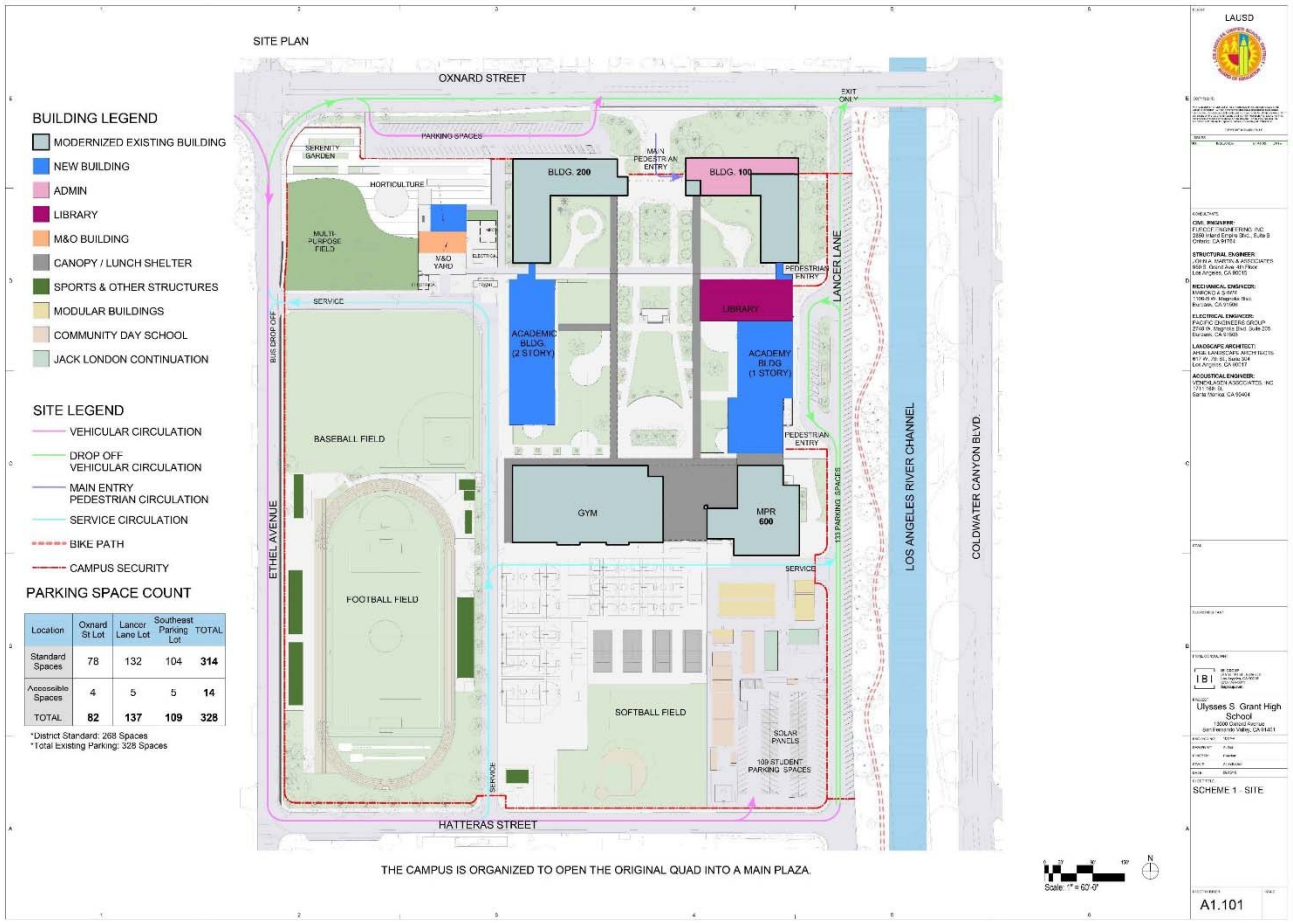
Disclaimer: Illustration provided by LAUSD, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: LAUSD. August 15, 2016.

UltraSystems

Grant High School
Comprehensive Modernization Project
Site Plan

Figure 3.4-2
SITE PLAN AT END OF PROJECT



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Source: IBI Group. 09/15/16

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Grant High School
Comprehensive Modernization Project

Proposed Site

Table 3.4-2
SUMMARY OF PROJECT IMPROVEMENTS

Building Number	Building Name/Location Description	Demolition Square Feet	Modernization Square Feet	New Square Feet	Existing (No Change) Square Feet
1	Classroom Building West		48,023		
2	Art Building	17,424			
3	Utility Building	4,020			
4	Industrial Arts Building	12,662			
5	Physical Education Building		24,581		18,201
6	Two/Three Unit Relocatable	1,824			
7	Transformer Vault	1,196			
8	Single Unit Relocatable	880			
9	Sanitary Relocatable Building	888			
10	Two/Three Unit Relocatable	2,592			
11	Two/Three Unit Relocatable	2,970			
12	Two/Three Unit Relocatable	3,202			
13	Two/Three Unit Relocatable	1,877			
14	Two/Three Unit Relocatable	1,877			
15	Two/Three Unit Relocatable	1,877			
16	Two/Three Unit Relocatable	1,877			
17	Two/Three Unit Relocatable	1,877			
18	Two/Three Unit Relocatable	1,728			
19	Two/Three Unit Relocatable	1,728			
20	Lath House	1,400			
21	Greenhouse	160			
22	Storage Unit 1				360
23	Agricultural Classroom Building	1,500			
24	Storage Unit 2				360
25	Sanitary Building				1,512
27	Industrial Arts Building	5,460			
28	Sanitary Relocatable Building				912
29	Library Building	7,958			
30	Administrative Building	8,111			
31	Multi-purpose Building		20,997		6,473
32	Classroom Building				6,518
33	Classroom Building				6,518
34	New Central Administration / Health Unit / Career Center / School Police (Existing Classroom Building East)		48,480		

Building Number	Building Name/Location Description	Demolition Square Feet	Modernization Square Feet	New Square Feet	Existing (No Change) Square Feet
35	Single Unit Modular				896
36	Single Unit Modular				896
37	Single Unit Modular				896
39	Storage Unit 3				360
42	Bleachers 1				3,300
43	Bleachers 2				3,300
44	Announcer's Booth				44
45	Electrical Equipment Room 1				194
46	Electrical Equipment Room 2				183
47	Single Classroom Relocatable	960			
52	Shade Structure				937
53	Utility Building				983
54	Bleachers				5,325
55	Sanitary Building				488
56	Storage				224
57	Platform	666			
58	Platform	584			
	Instructional Space (General and Specialized)			68,387	
	Support Services (Library / Media Center, Textbook Room, Support Spaces)			16,378	
	Maintenance and Operations			3,506	
TOTAL		**87,298**	**142,081**	**88,271**	**58,880**

Source: LAUSD, Ulysses S. Grant High School: Comprehensive Modernization Project – Space Program, 2017.

3.4.2.1 Demolition

The Project would include demolition of 12 existing permanent buildings and structures totaling approximately 61,141 square feet of floor space and demolition/removal of 14 portable buildings containing approximately 26,157 square feet of classroom space, for a total demolition/removal of approximately 87,298 square feet. The Project also includes the remodeling of approximately 142,081 square feet of existing building space.

Facilities to be removed include the following

- Administration building.
- Library building.
- Arts building.
- Two industrial arts classroom buildings.
- Agricultural/horticultural classroom building and auxiliary structures.
- Utility/support buildings and structures.

- Approximately 22 classrooms located in relocatable buildings

3.4.2.2 New Construction and Renovations

As shown in **Figure 3.4-2**, in the northwest corner of the Project site, the existing portable buildings will be replaced with a new multi-purpose field and the agricultural and maintenance and operations buildings. The existing buildings in the middle of the main quad will be replaced with new buildings, organizing the quad into a main plaza for the Project site. Administrative uses will be moved to the renovated Building #100, placing these uses at the main entrance to the campus.

The Project would include modernization and/or upgrades to the following facilities:

- Approximately 49 general, science and specialty classrooms, and support spaces.
- Classroom building (#100) renovated to include new uses: Central Administration, Health Unit, Career Center, and School Police. Also, seismic retrofit, and electrical and HVAC systems upgrade.
- Classroom building (#200): seismic retrofit, and electrical and HVAC systems upgrade.
- Gymnasium: seismic retrofit, HVAC and fire alarm systems upgrade, modernization of multiple existing uses.
- Multi-purpose building: seismic retrofit, HVAC system upgrade, and modernization of multiple existing uses including Grant Hall.
- Agricultural/horticultural area: landscape and utility improvements.

3.4.2.3 Infrastructure Upgrades

The Project would also include the following site upgrades

- Upgrades to site-wide infrastructure, including sanitary sewer, water, and electrical utilities.
- Various site-wide upgrades to remove identified and prioritized barriers to program accessibility per the Americans with Disabilities Act (42 U.S. Code Chapter 126).
- Upgrades to landscape, hardscape and exterior paint.

3.4.2.4 Updates for Regulatory Compliance

The Project includes various actions to ensure that Grant High School complies with various federal, state and local statutory and regulatory requirements. These include improvements required by the Americans with Disabilities Act (42 U.S. Code Chapter 126), California Department of General Services, Division of the State Architect, Department of Toxic Substances Control, Office of the Independent Monitor, and Standard Conditions of Approval of the PEIR.[5]

3.4.3 Access, Circulation and Parking

The Project would result in reconfiguration of some of the access points throughout the campus. Currently, Lancer Lane provides two-way traffic circulation with limited access from Oxnard Street. Access is restricted to inbound and outbound right turns. However, existing traffic currently makes illegal inbound and outbound left-turns, which presents a safety hazard due to the proximity of the intersection to Coldwater Canyon Boulevard. Lancer Lane will be reconfigured for northbound traffic only, with outbound right-turns permitted onto Oxnard Street. In addition, an internal vehicular

5 LAUSD. 2015. Program EIR for the School Upgrade Program. Available at: http://achieve.lausd.net/ceqa.

right-of-way would be provided through the center of the campus, in a counter-clockwise direction to allow for emergency vehicle access. All other existing driveways and parking lots would remain in place. Vehicular access and parking would be designed to comply with Section 2.3, Vehicular Access and Parking of the School Design Guide, January 2014.

3.4.4 Landscaping

The Project landscaping will be designed to be compatible with the campus and to incorporate, to the extent possible, native plants and vegetation that are appropriate for the campus and the Southern California setting. All plants and vegetation proposed for the campus will be selected from the District's approved plant list or will be approved by the District prior to being placed on the campus.

3.4.5 Site Security and Safety

Currently, the Grant High School campus is mostly secured by fencing along the boundaries. Following the Project, the campus would remain secured, with the majority of the campus being fenced or gated. The Project may install additional fences surrounding new parking lots. Additionally, security lighting would be installed throughout the campus to alleviate safety concerns.

The Los Angeles School Police Department (LASPD) is the primary provider of police protection to schools within the District's jurisdiction.[6] LASPD is the largest independent school police department in the United States, with over 350 sworn police officers, 126 nonsworn school safety officers, and 34 civilian support staff dedicated to serving LAUSD. In addition, police protection services for the campus is provided by the City of Los Angeles Police Department, Van Nuys Police station, located 1.5 miles northwest of the campus at 6240 Sylmar Street, Van Nuys.

3.4.6 Sustainability Features

The Project's new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. All new construction would at a minimum exceed by 10% or more, the energy efficiency standards under California Title 24, Part 6 energy efficiency standards consistent with LAUSD Standard Condition of Approval SC-GHG-5.

3.4.7 Construction Schedule

The Project would be executed through a design-build contract. Preconstruction activities are underway and are expected to be completed in the third quarter of 2018. Construction activities (including demolition) will occur in two 18-month sequential, non-overlapping phases. **Table 3.4-3** shows how each 18-month phase will be divided into four sequential subphases. The only subphase that may overlap another subphase is expected to be asphalt paving and offsite street work. The table also shows the anticipated starting and ending dates for the two main phases. The schedule is discussed further in **Section 4.3.1**.

[6] LAUSD SUP Final EIR, September 2015.

Table 3.4-3
CONSTRUCTION PHASES AND SUBPHASES

Construction Phase and Subphase	No. of Months	Start	End
PHASE 1	18	January 2019	July 2020
Demolition/Interim Housing/ Building Interior Modernization	2	January 2019	March 2019
Site Preparation/Modernization	2	March 2019	May 2019
Building Construction/Modernization	12	May 2019	May 2020
Asphalt Paving and Offsite Street Work	2	May 2020	June 2020
Architectural Coatings	1	June 2020	July 2020
PHASE 2	18	July 2020	January 2022
Demolition/Interim Housing/ Building Interior Modernization	2	July 2020	September 2020
Site Preparation/Modernization	2	September 2020	November 2020
Building Construction/Modernization	12	November 2020	November 2021
Architectural Coatings	1	October 2021	November 2021
Asphalt Paving and Offsite Street Work	2	November 2021	January 2022

3.5 Existing Noise Environment

The predominant source of noise in the area of Grant High School is motor vehicle traffic. Oxnard Street, which forms the school's northern boundary, is classified as an "Avenue II,"[7] and has an average traffic of about 35,600 vehicles per day.[8] Coldwater Canyon Avenue, which forms the school's Eastern boundary, is also an "Avenue II,"[9] with an average traffic of about 20,700 vehicles per day.[10] Results of UltraSystems' ambient measurements in the Project area are presented in **Section 3.7**.

3.6 Sensitive Land Uses

The Noise Element of the City of Los Angeles General Plan deems the following land uses "noise sensitive:[11]

- Single-family and multi-unit dwellings.
- Long-term care facilities (including convalescent and retirement facilities).

7 Ulysses S. Grant Senior High School Modernization Traffic Memo. Traffic memorandum from Meghan Macias, Transpo Group to Linda Wilde, Los Angeles Unified School District and Betsy Lindsay, UltraSystems Environmental Inc. May 8, 2017, p. 7.
8 Ibid., p. 9.
9 Ibid., p. 7.
10 Ibid., p. 9.
11 Noise Element of the Los Angeles City General Plan. City of Los Angeles, Department of City Planning, Los Angeles, California. Adopted February 3, 1998. P.3-1. http://planning.lacity.org/cwd/gnlpln/noiseElt.pdf. Accessed December 16, 2016.

- Dormitories, motels, hotels, transient lodgings and other residential uses.
- Houses of worship.
- Hospitals.
- Libraries.
- Schools.
- Auditoriums; concert halls; outdoor theaters.
- Nature and wildlife preserves.
- Parks.

The existing sensitive receivers nearest the Project site are residential neighborhoods immediately on the north and east sides of the school. Los Angeles Valley Community College is about 85 feet to the south-southwest. **Table 3.6-1** shows the distances to the nearest land uses normally considered to be noise-sensitive. Sensitive receivers within 0.25 mile of Grant High School are shown in **Figure 3.6-1**.

Figure 3.6-1
SENSITIVE RECEIVERS

Table 3.6-1
NEAREST EXISTING SENSITIVE RECEIVERS

	Sensitive Receiver Name	Type	Location	Distance from Proposed Project[a] (Feet)
1	Apartment Building	Multi-Family Dwelling	13031 Oxnard Street Van Nuys, CA 91401 Latitude: 34.179581 Longitude: -118.417065	80
2	Los Angeles Valley Community College	School (Public College)	5792 Ethel Avenue Sherman Oaks, CA 91401 Latitude: 34.175398 Longitude: -118.418026	85
3	The Church of Jesus Christ Latter-Day Saints	House of Worship	13042 Burbank Blvd. Van Nuys, CA 91401 Latitude: 34.171921 Longitude: -118.417196	93
4	Private Residence	Single-Family Dwelling	5914 Coldwater Canyon Avenue Valley Village, CA 91607 Latitude: 34.177930 Longitude: -118.413567	271
5	Sunrise School	School (Developmental Disabilities School)	13130 Burbank Blvd. Sherman Oaks, CA 91401 Latitude: 34.171677 Longitude: -118.419267	375
6	Maggy Haves School	School (Private Preschool)	6100 Coldwater Canyon Avenue North Hollywood, CA 91606 Latitude: 34.181424 Longitude: -118.413353	767
7	Monlux Elementary School	School (Public Elementary School)	6051 Bellaire Avenue North Hollywood, CA 91606 Latitude: 34.181437 Longitude: -118.409848	1,318

Source: UltraSystems and Google Earth Pro. 2016.
[a]Distances from nearest edge of school site.

3.7 Ambient Noise Monitoring

On Thursday, October 20, 2016, UltraSystems conducted ambient noise sampling at ten locations on campus and in the general Project area; these are shown in **Figure 3.7-1**. **Table 3.7-1** lists the measurement points, sampling times, and why the sites were chosen.

Table 3.7-1
CHARACTERISTICS OF AMBIENT NOISE MEASUREMENT LOCATIONS

Point	Sampling Location	Time Interval	Purpose of Selection
1	Near Classroom & Library (On Campus)	0903–0918	Additional building nearest to construction
2	Near Classroom & Arts Bldg. (On Campus)	0925–0940	Nearest building to future construction
3	Near Classrooms & Portables (On Campus)	0945–1000	Additional building near to construction
4	5914 Coldwater Canyon Ave. (Residential Area)	1036–1051	Nearest residential area east of the Project site
5	5800 Coldwater Canyon Ave. (Residential Area)	1056–1111	Nearest residential area southeast of the Project site
6	12860 Oxnard Street (Residential Area)	1117–1132	Nearest residential area northeast of the Project site
7	12959 Oxnard Street (Residential Area)	1137–1152	Nearest residential area north of the Project site
8	13059 Oxnard Street (Residential Area)	1157–1212	Nearest residential area northwest of the Project site
9	5712 Ethel Avenue (Residential Area)	1221–1236	Nearest area southwest of the Project site
10	Hatteras Street (LA Valley College Stadium)	1240–1255	Nearest area south of the Project site

The sampling locations were chosen to provide ambient noise data to compare with the results of construction noise estimates. (See **Section 5.1**.) A Quest SoundPro Model DL-1-1/3 ANSI Type 1 sound level meter was used in the "slow" mode at each site to obtain a 15-minute average sound level (L_{eq}), as well as other metrics. The meter's microphone was maintained five feet above the ground. The samples were taken in the morning on a Thursday. Noise meter output records and observations during sampling are in **Attachment A.**

Figure 3.7-1
AMBIENT NOISE MONITORING SITES

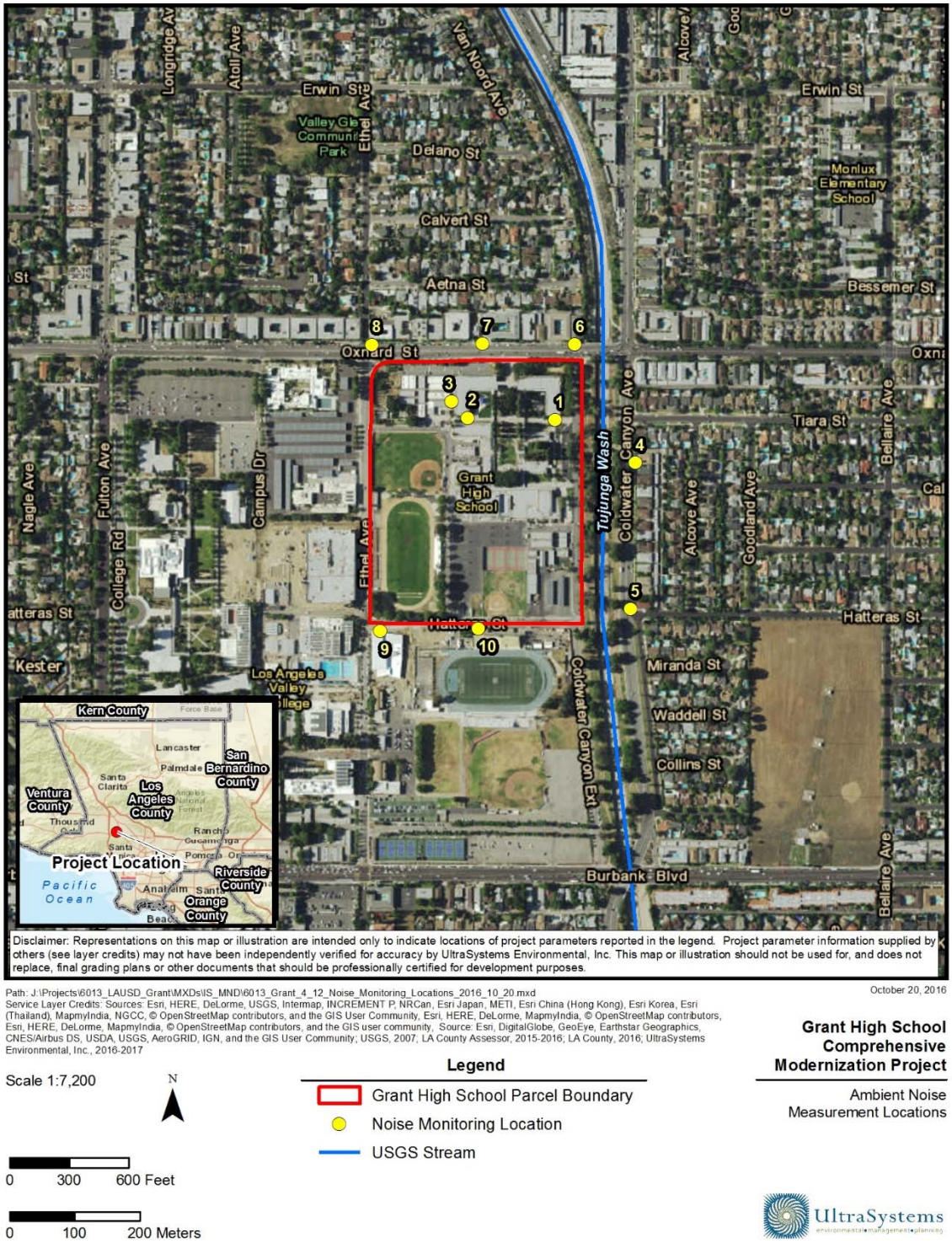

Table 3.7-2 shows the results of the ambient noise sampling. Ambient noise levels for the ten sampling points averaged (L_{eq}) 67.3 dBA. L_{90} values averaged 55.2 dBA.

Table 3.7-2
MEASURED AMBIENT NOISE LEVELS

Point	Measurement Results (dBA)		
	15-Minute Leq	L_{max}	L_{90}
1	56.8	71.1	51.5
2	58.6	74.0	51.8
3	60.8	68.6	51.2
4	65.2	76.6	50.9
5	68.4	85.8	51.3
6	71.4	88.3	61.3
7	69.0	80.5	54.5
8	72.4	84.3	59.2
9	59.1	74.4	50.4
10	62.3	77.8	48.6

Average ambient noise levels (L_{eq}) ranged from 56.8 to 72.4 dBA. The highest average noise levels were at measurement point 6 and 8, which are near the heavily traveled Oxnard Street. For most of the ambient monitoring locations, the difference between the L_{eq} and L_{90} values ranged from 5.3 to 17.1 dBA. Since the L_{90} is a measure of general "background" noise, it is likely that Oxnard Street is an important noise contributor on the northern side of the Project area. Two of the three ambient monitoring locations on campus yielded the lowest difference between the L_{eq} and L_{90} values. This implies a lack of loud sustained noise sources on the campus.

4.0 APPLICABLE REGULATIONS

Section 5.12 of the PEIR describes in considerable detail the laws, regulations and policies of the federal government, the State of California, and the City of Los Angeles[12] that are intended to reduce people's exposure to noise. The reader is referred to that discussion. For convenience in interpreting the findings of this technical study, we repeat those regulations that are directly relevant to the Project.

4.1 Federal

Because Grant High School is bordered on two sides by residences that could be affected by construction noise from the Project, the U.S. Department of Housing and Urban Development's (HUDs) goal of 45 dBA L_{dn} as a desirable maximum interior standard for residential units developed under HUD funding (HUD 1985) is pertinent. While HUD does not specify acceptable exterior noise levels, standard construction of residential dwellings constructed under Title 24 of the California Code of Regulations typically provides 20 dBA of acoustical attenuation with the windows closed and 10 dBA with the windows open. Based on this assumption, the exterior L_{dn} or CNEL should not exceed 65 dBA under normal conditions.

4.2 State of California

The California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels with effects on various land uses. (The Office of Noise Control no longer exists.) The most current guidelines prepared by the state noise officer are contained in the "General Plan Guidelines" issued by the Governor's Office of Planning and Research in 2003 (OPR 2003). These guidelines establish four categories for judging the severity of noise intrusion on specified land uses:

- **Normally Acceptable**: Is generally acceptable, with no mitigation necessary.
- **Conditionally Acceptable**: May require some mitigation, as established through a noise study.
- **Normally Unacceptable**: Requires substantial mitigation.
- **Clearly unacceptable**: Probably cannot be mitigated to a less-than-significant level.

The types of land uses addressed by the state standards, and the acceptable noise categories for each are presented in **Table 4.2-1**. There is some overlap between categories, which indicates that some judgment is required in determining the applicability of the numbers in every situation.

12 Because Grant High School and the immediately surrounding area are within the City of Los Angeles, the City's regulations take precedence over those of the County of Los Angeles, which apply to unincorporated areas.

Table 4.2-1
LAND USE COMPATIBILITY FOR COMMUNITY NOISE SOURCES

Land Use Category	Noise Exposure (dBA, CNEL)						
	55	60	65	70	75	80	
Residential – Low-Density Single-Family, Duplex, Mobile Homes							
Residential – Multiple Family							
Transient Lodging – Motel, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							

Land Use Category	Noise Exposure (dBA, CNEL)					
	55	60	65	70	75	80
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

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.

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 system or air conditioning will normally suffice.

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.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: State of California, 2003.

4.3 City of Los Angeles

The Noise Element of the City of Los Angeles' General Plan uses a scheme similar to that of **Table 4.2-1** to classify the acceptability of different long-term noise levels for sensitive land uses.[13] For the single-family houses near Grant High School, 24-hour averages below 55 dBA CNEL are normally acceptable, and levels between 55 and 70 dBA CNEL are conditionally acceptable. For multifamily housing in the area, 24-hour averages below 60 dBA CNEL are normally acceptable, and levels between 60 and 70 dBA CNEL are conditionally acceptable.

As described in the PEIR, the City of Los Angeles Municipal Code has short-term noise exposure standards for various types of sources, but none appears to be relevant to this analysis. Section 41.40(a) of the Municipal Code restricts construction operations to 7:00 a.m. to 9:00 p.m., Monday through Friday, 8:00 a.m. to 6 p.m. on Saturdays and national holidays. Construction is prohibited on Sundays. Variances for construction during normally prohibited hours may be obtained from the Executive Officer of the Los Angeles Board of Police Commissioners.[14]

Section 112.05(a) of the City of Los Angeles Municipal Code limits noise exposures from construction equipment to 75 dBA at a distance of 50 feet. Almost all common types of construction equipment

13 City of Los Angeles. Noise Element of the Los Angeles City General Plan. Exhibit I: Guidelines for Noise Compatible Land Use. Department of City Planning, Los Angeles, California. Adopted February 3, 1999. Internet URL: http://planning.lacity.org/cwd/gnlpln/noiseElt.pdf.

14 City of Los Angeles Municipal Code § 41.40(b).

exceed that limit. The Municipal Code allows exceedance of the limit upon demonstration that compliance is technically infeasible.

4.4 Thresholds of Significance for this Analysis

Two criteria were used for judging noise impacts from the proposed Project. First, noise levels generated by the proposed Project must comply with all relevant federal, state and local standards and regulations. Noise impacts on the surrounding community are limited by local noise ordinances, which are implemented through investigations in response to nuisance complaints. It is assumed that all existing regulations for construction and operation of the proposed Project will be enforced. In addition, the proposed Project should not produce noise levels that are incompatible with adjacent noise sensitive land uses.

The second measure of impact used in this analysis is a significant increase in noise levels above existing ambient noise levels as a result of the introduction of a new noise source. An increase in noise level due to a new noise source has a potential to adversely impact people. According to LAUSD guidelines, [15] the proposed Project would have a significant noise impact if it would do any of the following:

- Create a maximum exterior noise level exceeding 70 dBA L_{10} or 67 dBA L_{eq}.
- Result in a maximum interior classroom noise level exceeding 55 dBA L_{10} or 45 dBA L_{eq}.
- Result in a permanent increase in noise levels at nearby sensitive land uses exceeding 3 dBA CNEL.

The following additional criteria are from the City of Los Angeles. The proposed Project would have a significant noise impact if it would do any of the following:

- Generate operational noise from traffic and onsite sources that would cause the ambient noise levels at the property line of affected uses to increase by 3 dBA CNEL and noise levels reach or are within the "normally unacceptable" or "clearly unacceptable" category or increase by 5 dBA CNEL or greater.

- Generate noise from operational stationary sources that causes ambient levels to increase by more than 5 dBA.

- For construction activities lasting more than one day, exceed existing exterior ambient levels by 10 dBA or more at a noise sensitive use.

- For construction activities lasting more than ten days in a three-month period, exceed existing exterior ambient levels by 5 dBA or more at a noise sensitive use.

- For construction activities between 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 at any time on Sunday, exceed the ambient level by 5 dBA at a sensitive receiver.

15 PEIR, p. 5.12-25.

5.0 PROJECT IMPACTS

Noise impacts associated with SUPs include short-term and long-term impacts. Construction activities, especially heavy equipment operation, would create noise effects on and adjacent to the construction site. Long-term noise impacts include Project-generated on-site and off-site operational noise sources. Onsite (stationary) noise sources would include operation of mechanical equipment such as air conditioners, landscape, building maintenance, and sports and recreational activities. Offsite noise would be attributable to Project-induced traffic, which would cause an incremental increase in noise levels within and near the Project vicinity.

This section also evaluates potential ground-borne vibration that would be generated from the construction or operation of the proposed Project.

5.1 Short-Term Noise Impacts

As noted in **Table 1.2.1**,

- SUP implementation may result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance.

- SUP-related Project construction activities may result in generation of excessive ground-borne vibration, primarily through the use of heavy construction equipment, pile driving, and/or rock blasting. Project-specific analysis required.

- Construction activities may result [in a] substantial temporary or periodic increase in ambient noise levels in the Project vicinity. Project-specific analysis required.

- Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and onroad delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise-generating activities. For the purpose of this analysis, it was estimated that construction of the proposed Project would begin in mid-January 2019 and finish mid-January 2022. This time would be divided into two approximately 18-month, non-overlapping phases.

Using preliminary design and scheduling information from LAUSD,[16] UltraSystems used the air pollutant emissions estimation model CalEEMod[17] to estimate the number of days to execute the following construction phases:

- Demolition/interior remodeling.
- Site preparation.
- Building construction.
- Architectural coating.
- Onsite paving and offsite street work.
- Offsite (local street) paving.

Table 5.1-1 lists the noise-emitting construction equipment expected to be used. For each equipment type, the table shows an average noise emission level (in dB at 50 feet, unless otherwise

16 Email from Linda Wilde, Los Angeles Unified School District, Los Angeles, CA to Betsy Lindsay, UltraSystems Environmental, Inc., Irvine, CA. April 18, 2017.
17 BREEZE Software, California Emissions Estimator Model. User's Guide, Version 2016.3.1, September 2016.

specified) and a "usage factor," which is an estimated percentage of operating time that the equipment would be producing noise at the stated level.[18] Equipment use was matched to phases of the construction schedule.

Table 5.1-1
CONSTRUCTION EQUIPMENT NOISE CHARACTERISTICS

Equipment Type	Horsepower	Usage Factor	Maximum Sound Level (dBA @ 50 feet)
Air Compressor (portable)	78	0.4	81
Bore/Drill Rig	221	0.5	84
Crane	231	0.2	83
Crushing/Process Equipment	85	0.8	96
Excavator	158	0.4	80
Forklift	89	0.2	67
Paver	130	0.5	77
Plate Compactor	8	0.2	83
Pump	84	0.5	81
Roller	80	0.2	80
Rubber Tired Loader	203	0.4	79
Skid Steer Loader	65	0.4	79
Tractor/Loader/Backhoe	97	0.4	85
Trencher	78	0.5	83
Water Trucks	402	0.4	79

5.1.1 Impacts to Neighborhood Sensitive Receivers

Construction noise from onsite activities was analyzed for each of the six subphases within each of the two 18-month main phases. These are shown in the first column of **Table 5.1-2**. The impact analysis focused on three sensitive receivers described in **Table 3.6-1** and shown in **Figure 3.6-1**: an apartment building on Oxnard Street (No. 1), a single-family residence on Coldwater Canyon Avenue (No. 4) and Los Angeles Valley Community College (No. 3). These receivers correspond approximately to ambient noise sampling points 8, 4, and 9, respectively. (See **Table 3.7-1** and **Figure 3.7-1**.) Distances between each construction activity and each sensitive receiver were determined by GIS analysis.

Table 5.1-2 shows the calculated one-hour average noise exposure (L_{eq}) at each site during each of the 12 construction phase combinations. The highest exposure (about 81 dBA L_{eq}) would occur during onsite parking lot paving across the street from the Oxnard Street apartments. The next highest exposures would be 77.6 dBA L_{eq} at the Coldwater Canyon Avenue residence and 76.6 dBA L_{eq} at the Oxnard Street residence during demolition.

18 Equipment noise emissions and usage factors are from Knauer, H. et al., 2006. *FHWA Highway Construction Noise Handbook.* U.S. Department of Transportation, Research and Innovative Technology, Administration, Cambridge, Massachusetts, FHWA-HEP-06-015 (August 2006), except where otherwise noted.

Table 5.1-2
CONSTRUCTION NOISE EXPOSURES AT THREE SENSITIVE RECEIVERS

Construction Phase Combination	Hourly Exposure (dBA L_{eq})		
	Oxnard Apartments	Coldwater Canyon House	Los Angeles Valley CC
Phase I			
Demolition	76.6	72.5	**71.8**
Site Preparation	67.0	63.0	62.2
Building Construction	68.1	64.1	63.3
Architectural Coating	63.3	59.0	55.0
Onsite Paving	**81.2**	61.7	65.9
Offsite Street Paving	67.0	68.1	64.1
Phase II			
Demolition	73.6	**77.6**	69.7
Site Preparation	64.0	68.1	60.1
Building Construction	65.1	69.2	61.2
Architectural Coating	53.4	57.9	52.0
Onsite Paving	62.9	61.2	62.6
Offsite Street Paving	66.9	70.6	58.5

As seen in **Table 5.1-3**, for the Oxnard apartments, the Coldwater Canyon house, and the community college, the increase over the measured ambient levels would be 9.3, 12.6 and 12.9 dBA L_{eq}, respectively. These increases in unmitigated noise exposure would normally be considered significant. However, the construction noise measures enumerated in SC-N-9: Construction Noise, will reduce exposures to a less than significant level. Furthermore, the analysis did not take into account shielding by existing and future structures.

Finally, impacts of construction-related on-road mobile sources were evaluated. The Project will generate temporary increases in traffic, comprised of worker commuting vehicles, material delivery trucks, debris hauling trucks, and other vehicles. For offsite, on-road noise impacts to be significant, it is generally necessary for traffic to double.[19] According to the Project traffic analysis, daily construction traffic would represent less than one percent of the existing daily volumes.[20]

19 *Technical Noise Supplement.* Prepared by ICF Jones & Stokes, Sacramento, California for California Department of Transportation (Caltrans), Sacramento, California (November 2009), p. 2-12.

20 Ulysses S. Grant Senior High School Modernization Traffic Memo. Traffic memorandum from Meghan Macias, Transpo Group to Linda Wilde, Los Angeles Unified School District and Betsy Lindsay, UltraSystems Environmental Inc. May 8, 2017, p. 13.

Table 5.1-3
ESTIMATED UNMITIGATED CONSTRUCTION NOISE EXPOSURES AT NEAREST SENSITIVE RECEIVERS

Site	Sensitive Receiver	1-Hour L_{eq} (dBA)		
		Existing	Projected[a]	Change
1	13031 Oxnard Street Van Nuys, CA 91401	72.4	81.7	+9.3
4	5914 Coldwater Canyon Avenue Valley Village, CA 91607	65.2	77.8	+12.6
3	Los Angeles Valley Community College 5792 Ethel Avenue Sherman Oaks, CA 91401	59.1	72.0	+12.9

[a]Existing ambient plus contribution of construction equipment during the loudest construction phase combination.

5.1.2 Impacts to Onsite (Campus) Sensitive Receivers

Existing buildings will be demolished and new structures will be built on a functioning, full-time high school campus. Most of the noise-generating construction activities will, for several days at a time, be near enough to classroom building to create a potential for noise disturbance. Per LAUSD standards, interior classroom noise levels are supposed to be at 45 dBA L_{eq} or below. The exterior walls of the classroom building already provide considerable attenuation. As seen in **Section 3.7**, ambient noise levels outside three existing buildings ranged from 56.8 to 60.8 dBA L_{eq}. Thus, the buildings are capable of attenuating up to about 15 to 16 dBA without extra measures. Implementation of SC-N-5: Construction Noise and Vibration, will minimize noise-related disruptions to school operations during construction.

5.2 Long-Term Noise Impacts

The Project will replace or upgrade facilities on the campus of Grant High School, but it will not increase the number of students or faculty at the school, and will not introduce major new onsite noise sources or bring existing noise sources closer to sensitive receivers. Therefore, there will be no change in exposure to the community and the impact will be less than significant.

For offsite, on-road noise impacts to be significant, it is generally necessary for traffic to double.[21] As stated in the traffic study, the proposed Project would not increase the existing number of students, nor would it add additional uses, and therefore would not generate new (permanent) traffic to the study area.[22] Therefore, impacts will be less than significant.

5.3 Vibration Impacts

Vibration is sound radiated through the ground. Ground-borne noise is the rumbling sound caused by the vibration of building interior surfaces. The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second and is referenced as vibration decibels (VdB).

21 *Technical Noise Supplement.* Prepared by ICF Jones & Stokes, Sacramento, California for California Department of Transportation (Caltrans), Sacramento, California (November 2009), p. 2-12.

22 Ulysses S. Grant Senior High School Modernization Traffic Memo. Traffic memorandum from Meghan Macias, Transpo Group to Linda Wilde, Los Angeles Unified School District and Betsy Lindsay, UltraSystems Environmental Inc. May 8, 2017, p. 1.

Typical outdoor sources of perceptible ground-borne vibration are construction equipment and traffic on rough roads.

The American National Standards Institute (ANSI 1983) indicates that vibration levels in critical care areas, such as hospital surgical rooms and laboratories, should not exceed 0.2 inch per second of PPV. The FTA also uses a PPV of 0.2 inch per second as a vibration damage threshold for fragile buildings and a PPV of 0.12 inch per second for extremely fragile historic buildings (FTA 2006). The FTA criteria for infrequent ground-borne vibration events (less than 30 events per day) that may cause annoyance are 80 VdB for residences and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime use.

5.3.1 Construction Vibration

It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

Heavy Construction Equipment. Although all heavy, mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate closely enough to any sensitive receivers to cause vibration impact.

Trucks. Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes almost always eliminates the problem.

The FTA (2006) has published standard vibration levels for construction equipment operations, at a distance of 25 feet. The calculated vibration levels expressed in VdB and PPV for typical construction equipment at distances of 25, 50, and 238 feet are listed in **Table 5.3-1**.[23]

Table 5.3-1
VIBRATION LEVELS OF TYPICAL CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (in/sec)	Vibration Decibels at 25 feet (VdB)	PPV at 50 feet (in/sec)	Vibration Decibels at 50 feet (VdB)	PPV at 238 feet (in/sec)[a]	Vibration Decibels at 238 feet (VdB)[a]
Loaded trucks	0.076	86	0.0269	80	0.0026	66
Jack hammer	0.035	79	0.0124	73	0.0012	59
Small bulldozer	0.003	58	0.0011	52	0.0001	38

Source: Calculated by UltraSystems from FTA data.
[a] Distance from onsite classrooms to major construction activity.

As shown in **Table 5.3-1**, the vibration level of construction equipment at the nearest sensitive receiver (238 feet) is at most 0.0026 inch per second, which is less than the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings, and 66 VdB, which is less than the FTA

23 The geometric mean distance from classrooms to major construction activities is about 238 feet.

threshold for human annoyance of 80 VdB. Vibration impacts during construction would therefore be less than significant.

5.3.2 Operational Vibration

As stated in the PEIR, school operations do not involve sources that cause substantial ground-borne vibration. Therefore, the modernization Project at Grant High School will not result in long-term significant impacts due to ground-borne vibration or noise levels.

6.0 MITIGATION MEASURES

The standard conditions of approval cited in this report will be adequate to reduce all potentially significant noise impacts to less than significant. No mitigation measures are required for this Project.

7.0 IMPACTS AFTER MITIGATION

No noise mitigation measures are required for this Project.

8.0 REFERENCES

ANSI. 1983. Guide to the Evaluation of Human Exposure to Vibration in Buildings: American National Standards Institute, ANSI S.329-1983.

Caltrans. 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol: California Department of Transportation, Sacramento, California. September.

FTA. 2006. Transit Noise and Vibration Impact Assessment: Federal Transit Administration, Office of Planning and Environment, FTA-VA-90-1003-06. May.

HUD. 1985. Noise Guidebook: U.S. Department of Housing and Urban Development.

OPR. 2003. General Plan Guidelines: State of California, Governor's Office of Planning and Research, Sacramento, California.

USEPA. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety: U.S. Environmental Protection Agency. March.

APPENDICES

ATTACHMENT A

NOISE MEASUREMENT FIELD DATA FORMS

AND NOISE METER OUTPUT FILES

UltraSystems
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16431 Scientific Way
Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 900 Project Number: 6013

Monitoring Segment / Area: 0013 Monitoring Site Address: Between library/classroom on campus

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: Ø mph [km/hr] Approximate Wind Direction: From the N/A

Approximate distance of sound level meter from receptor location: 15 FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☐ Residential ☑ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 903 Measurement End Time: 918

Total Measurement Time: 15 mins Session File Name (e.g., S012): S049

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.7	Post: 113.7
L_{eq} (h)	Slow: 56.8	Fast: X
L_{max}	Slow: 71.1	Fast: X
L_{90}	Slow: 51.5	Fast: X

Field Notes:

1. Photos 36-39
2. Bell 9:04Am, Kids change classes; Bell at 910
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 900 Project Number: 6013

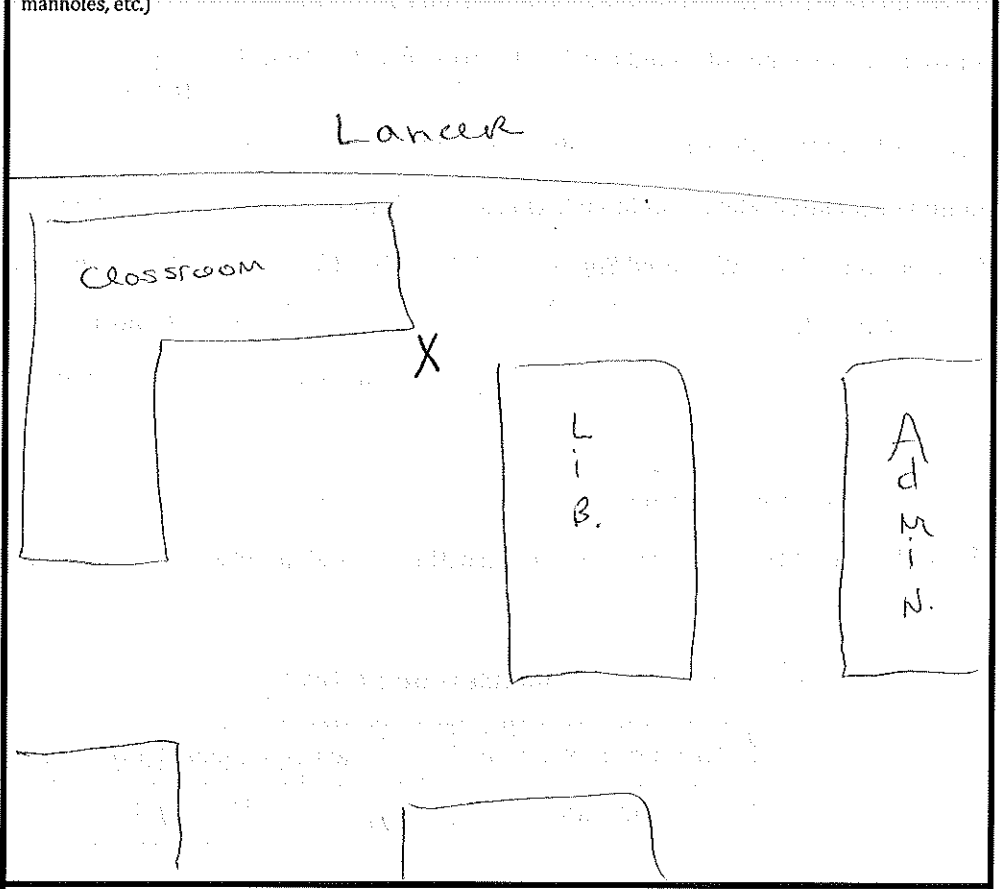
Monitoring Segment / Area: 0013 Monitoring Site Address: Between library / classroom on campus

Site Map

Plan View

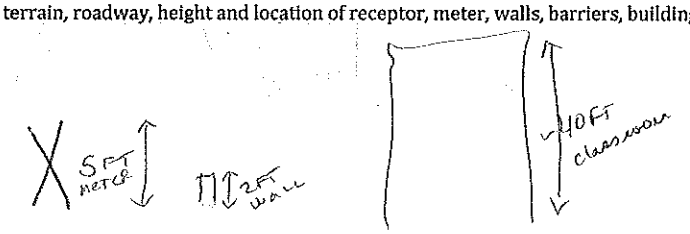
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.18141	Longitude: 118.41209	Elevation: 52? Doesn't seem right

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 925 Project Number: 6013

Monitoring Segment / Area: 014 Monitoring Site Address: Between arts/classroom on campus

Measurement Taken By: S. Sefcryn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 0.2 mph [km/hr] Approximate Wind Direction: From the W

Approximate distance of sound level meter from receptor location: 10 FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☐ Residential ☑ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 925 Measurement End Time: 940

Total Measurement Time: 15 mins Session File Name (e.g., S012): S050

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)
Calibration	Pre: 113.7 Post: 113.7
L_{eq} (h)	Slow: 58.6 Fast:
L_{max}	Slow: 74.0 Fast:
L_{90}	Slow: 51.8 Fast:

Field Notes:

1. Photos 40-42 / Photo 43 of nests swallow on classroom bldg entrance
2. 928 campus announcements for a few mins
3. 932 students leave classrooms to head to PE area for earthquake drill

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 925 Project Number: 6013

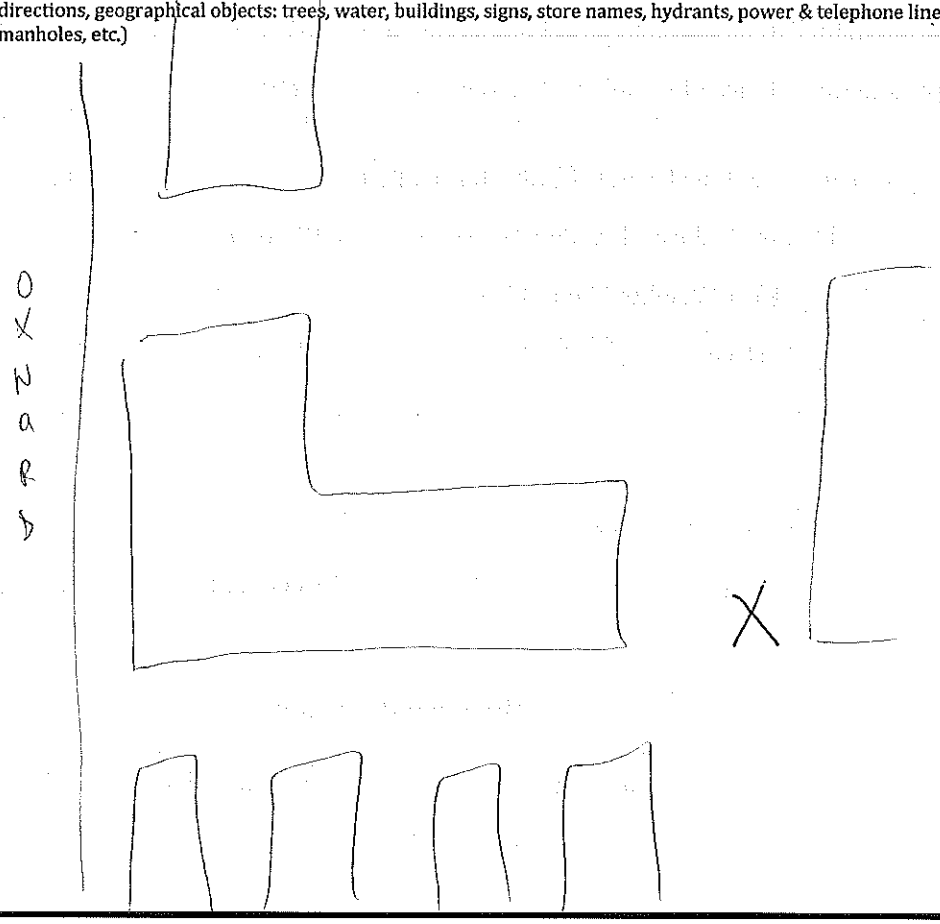
Monitoring Segment / Area: 014 Monitoring Site Address: Between arts/classroom on campus

Site Map

Plan View

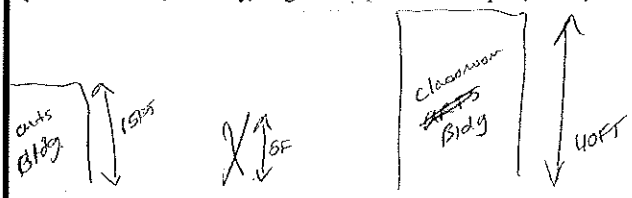
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17849	Longitude: 118.41644	Elevation: 686

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 945 Project Number: 6013

Monitoring Segment / Area: 015 Monitoring Site Address: Between classroom/portables on campus

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 1.2 mph [km/hr] Approximate Wind Direction: From the N

Approximate distance of sound level meter from receptor location: 7FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☐ Residential ☑ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 945 Measurement End Time: 1000

Total Measurement Time: 15 mins Session File Name (e.g., S012): S051

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.7	Post: 113.6
L_{eq} (h)	Slow: 60.8	Fast:
L_{max}	Slow: 68.6	Fast:
L_{90}	Slow: 51.2	Fast:

Field Notes:

1. Photos 44-47 / Photo 48 swallow nests at classroom bldg entrance
2. 25FT - 30FT from air conditioning unit for classroom (ran from 945-948)
3. ↑ (Kicked back on from 956 - until end of measurement)

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 945 Project Number: 6013

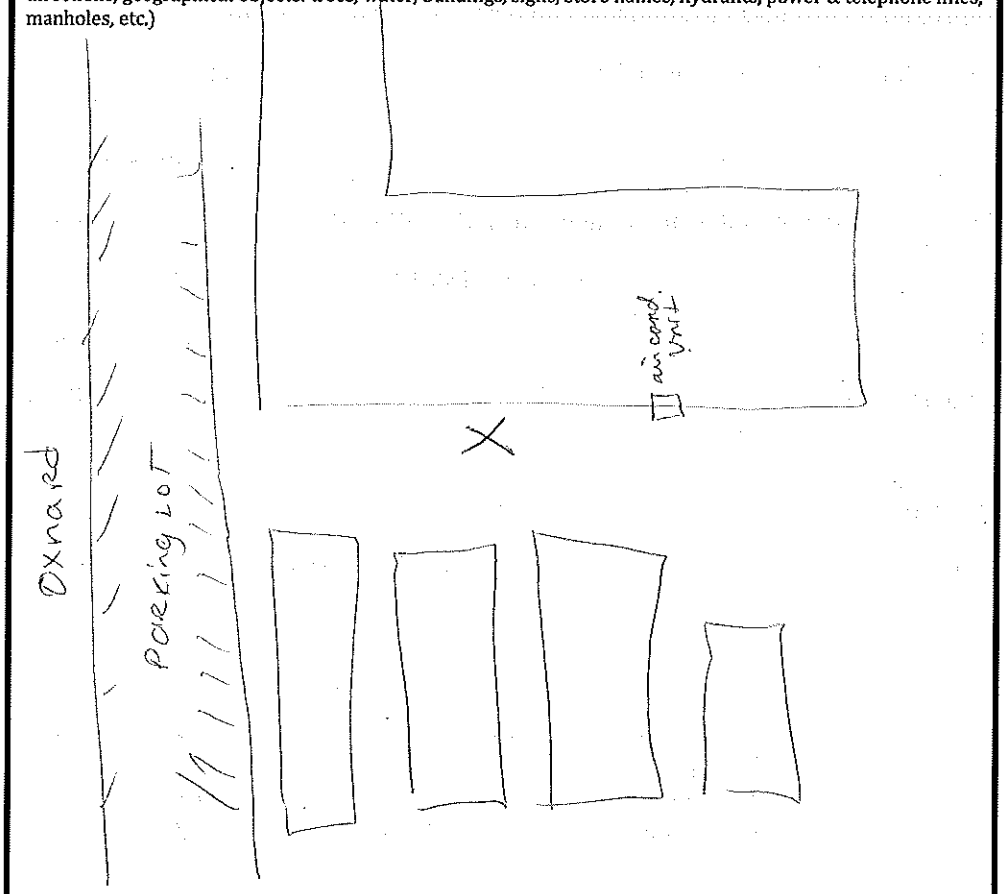
Monitoring Segment / Area: 015 Monitoring Site Address: between classrooms/portables on campus

Site Map

Plan View

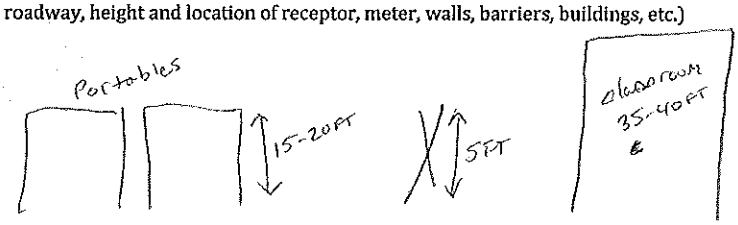
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17877	Longitude: 118.41684	Elevation: 750

Noise Monitor's Signature: _____ Date: 10/20/16

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Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs. Time: 1035 Project Number: 6013

Monitoring Segment / Area: 016 Monitoring Site Address: 5914 Coldwater canyon ave.

Measurement Taken By: S. Sefergn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the —

Approximate distance of sound level meter from receptor location: 7 FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☑ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1036 Measurement End Time: 10 51

Total Measurement Time: 15 mins Session File Name (e.g., S012): S052

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.7	Post: 113.8
$L_{eq\,(h)}$	Slow: 65.2	Fast:
L_{max}	Slow: 76.6	Fast:
L_{90}	Slow: 50.9	Fast:

Field Notes:

1. Photos 49-50
2.
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs. Time: 1035 Project Number: 6013

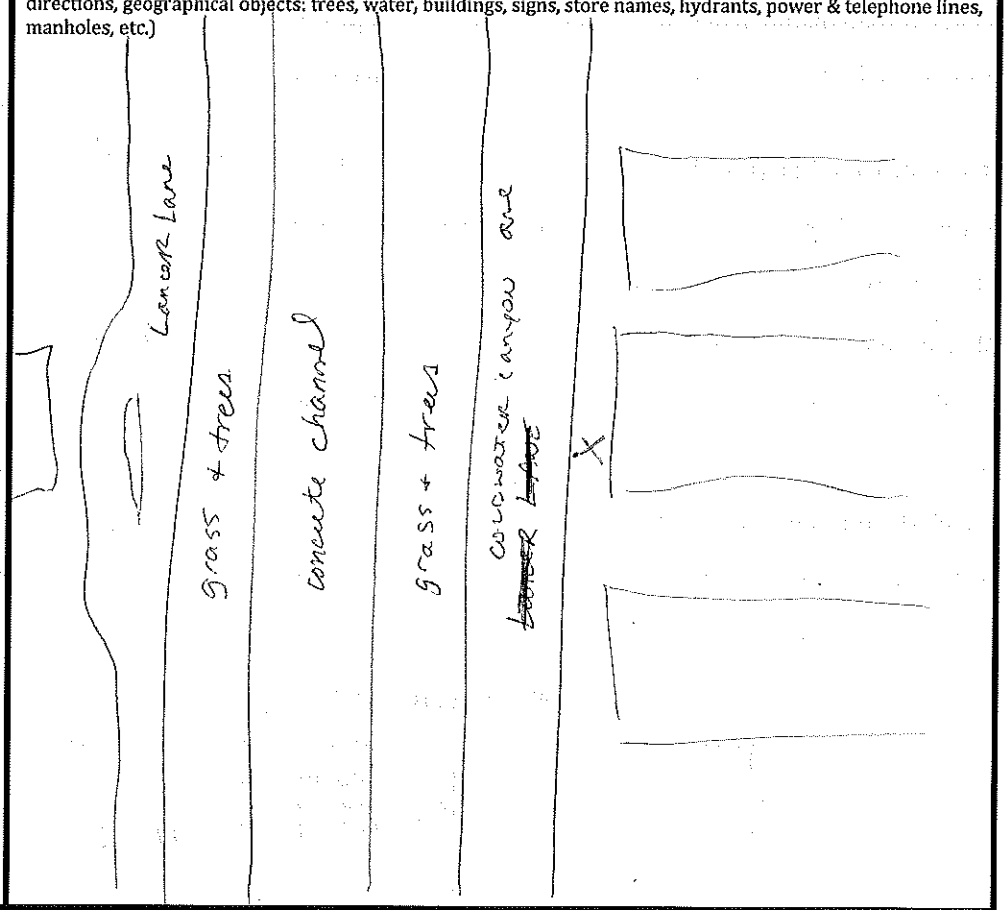
Monitoring Segment / Area: 016 Monitoring Site Address: 5914 Coldwater Canyon Ave

Site Map

Plan View

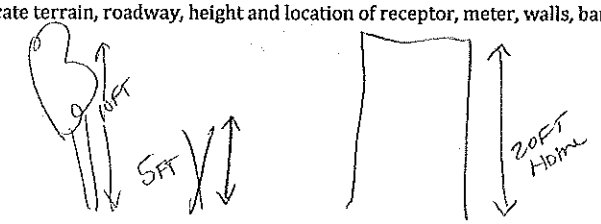
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17788	Longitude: 118.41364	Elevation: 676

Noise Monitor's Signature: Steve Seifer Date: 10/20/16

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Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1056 Project Number: 6013

Monitoring Segment / Area: 017 Monitoring Site Address: 5800 Coldwater Canyon

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 0.7 mph [km/hr] Approximate Wind Direction: From the W

Approximate distance of sound level meter from receptor location: 6 ft

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☑ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1056 Measurement End Time: 1111

Total Measurement Time: 15 mins Session File Name (e.g., S012): S053

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.7	Post: 113.8
L_{eq} (h)	Slow: 68.4	Fast:
L_{max}	Slow: 85.8	Fast:
L_{90}	Slow: 51.3	Fast:

Field Notes:

1. Photos 51-53
2.
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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949.788.4900

Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 1056 Project Number: 6013

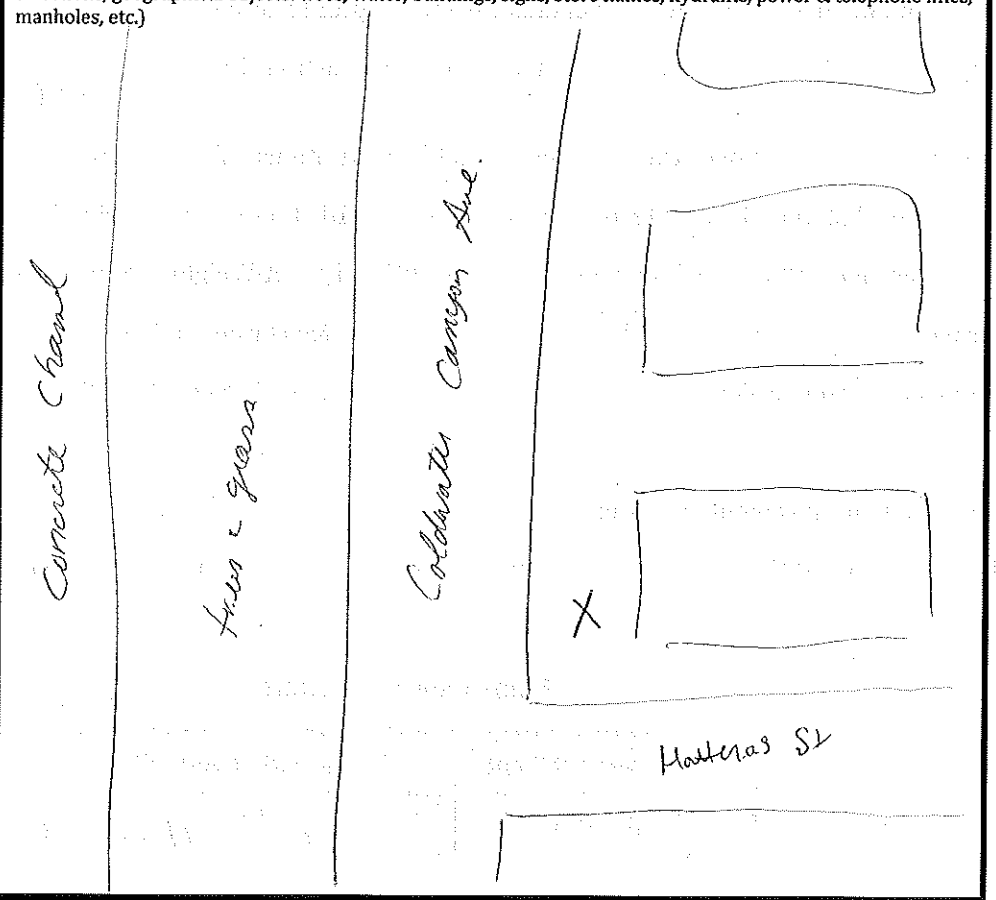
Monitoring Segment / Area: 017 Monitoring Site Address: 5800 Coldwater Canyon

Site Map

Plan View

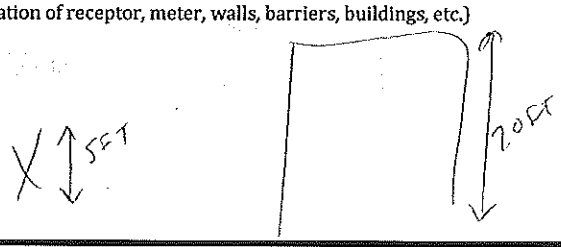
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17585	Longitude: 118.41371	Elevation: 690

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1117 Project Number: 6013

Monitoring Segment / Area: 018 Monitoring Site Address: 12860 Oxnard St.

Measurement Taken By: S. Sclayn/E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 0.9 mph [km/hr] Approximate Wind Direction: From the S

Approximate distance of sound level meter from receptor location: 12 FT

Approximate distance of sound level meter from construction site: ——
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☑ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1117 Measurement End Time: 1132

Total Measurement Time: 15 mins Session File Name (e.g., S012): S054

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.8	Post: 113.7
L_{eq} (h)	Slow: 71.4	Fast: X
L_{max}	Slow: 88.3	Fast: X
L_{90}	Slow: 61.3	Fast: X

Field Notes:

1. Photos 54-56
2.
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: _____ Project Number: 6013

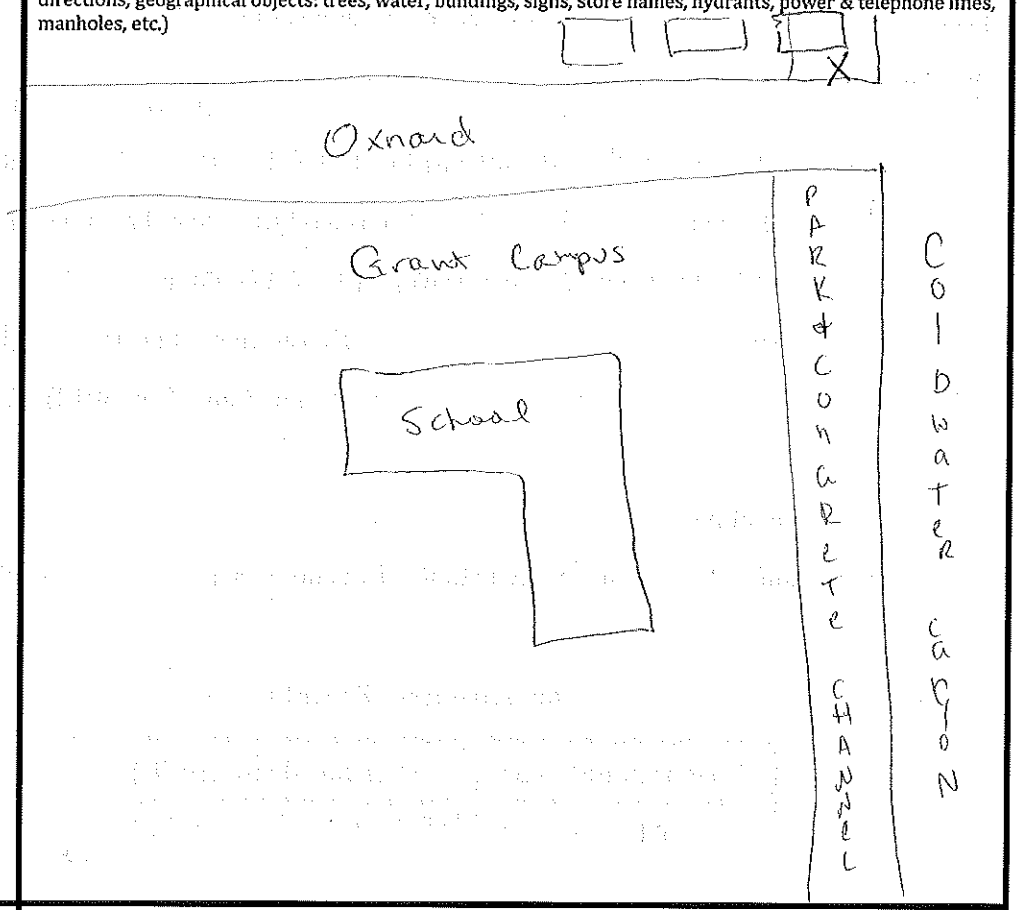
Monitoring Segment / Area: 018 Monitoring Site Address: 12860 Oxnard St

Site Map

Plan View

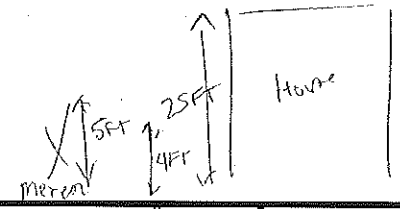
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17952	Longitude: 118.41466	Elevation: 686

Noise Monitor's Signature: _____ Date: 10/20/16

metal Gate / fence

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16431 Scientific Way
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949.788.4900

Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1137 Project Number: 6013

Monitoring Segment / Area: 019 Monitoring Site Address: 12959 Quard

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 1.3 mph [km/hr] Approximate Wind Direction: From the S

Approximate distance of sound level meter from receptor location: 15 FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☑ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1137 Measurement End Time: 11 52

Total Measurement Time: 15 mins Session File Name (e.g., S012): S055

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.8	Post: 113.8
L_{eq} (h)	Slow: 69.0	Fast:
L_{max}	Slow: 80.5	Fast:
L_{90}	Slow: 54.5	Fast:

Field Notes:

1. Photos 57-58
2.
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 1137 Project Number: 6013

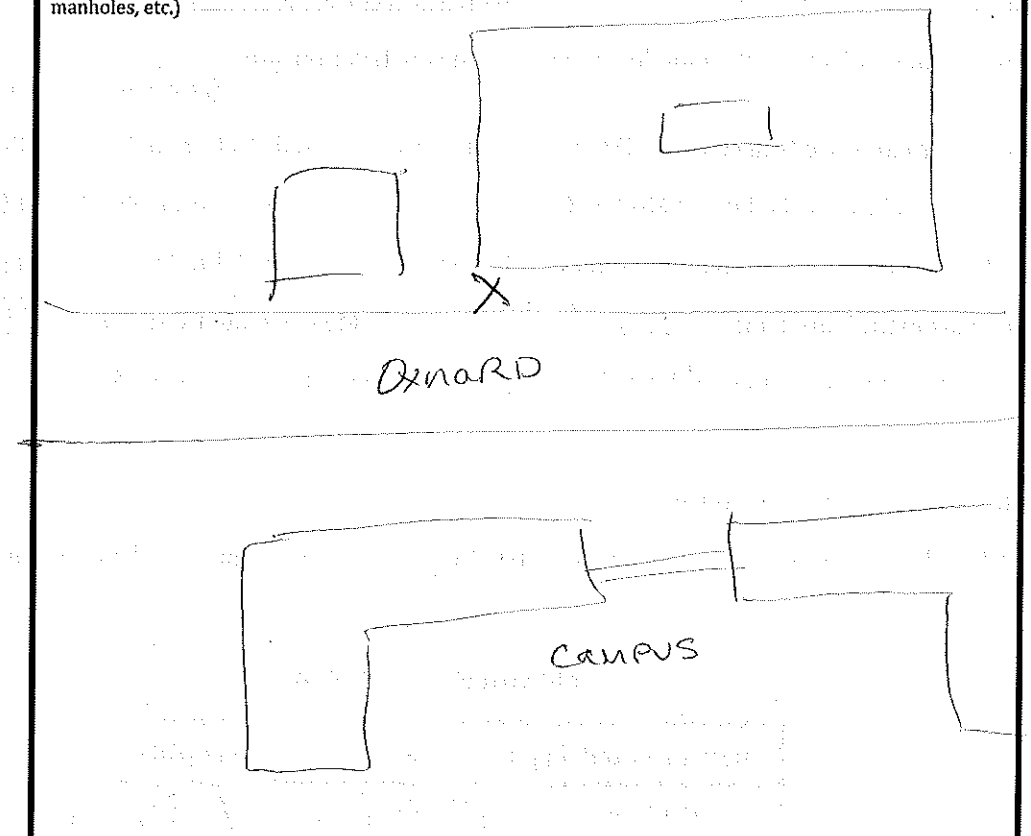
Monitoring Segment / Area: 019 Monitoring Site Address: 12959 Oxnard

Site Map

Plan View

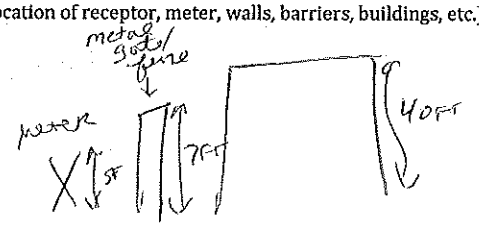
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17952	Longitude: 118.41619	Elevation: 677

Noise Monitor's Signature: [signature] Date: 10/20/16

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16431 Scientific Way
Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1157 Project Number: 6013

Monitoring Segment / Area: 020 Monitoring Site Address: 13059 Oxnard

Measurement Taken By: S. Sefergn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 20 mph [km/hr] Approximate Wind Direction: From the S

Approximate distance of sound level meter from receptor location: 20 ft

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☑ Residential ☐ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1157 Measurement End Time: 1212

Total Measurement Time: 15 mins Session File Name (e.g., S012): S056

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.9	Post: 113.8
L_{eq} (h)	Slow: 72.4	Fast: X
L_{max}	Slow: 84.3	Fast: X
L_{90}	Slow: 59.2	Fast: X

Field Notes:

1. Photos 59-60
2.
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 1157 Project Number: 6013

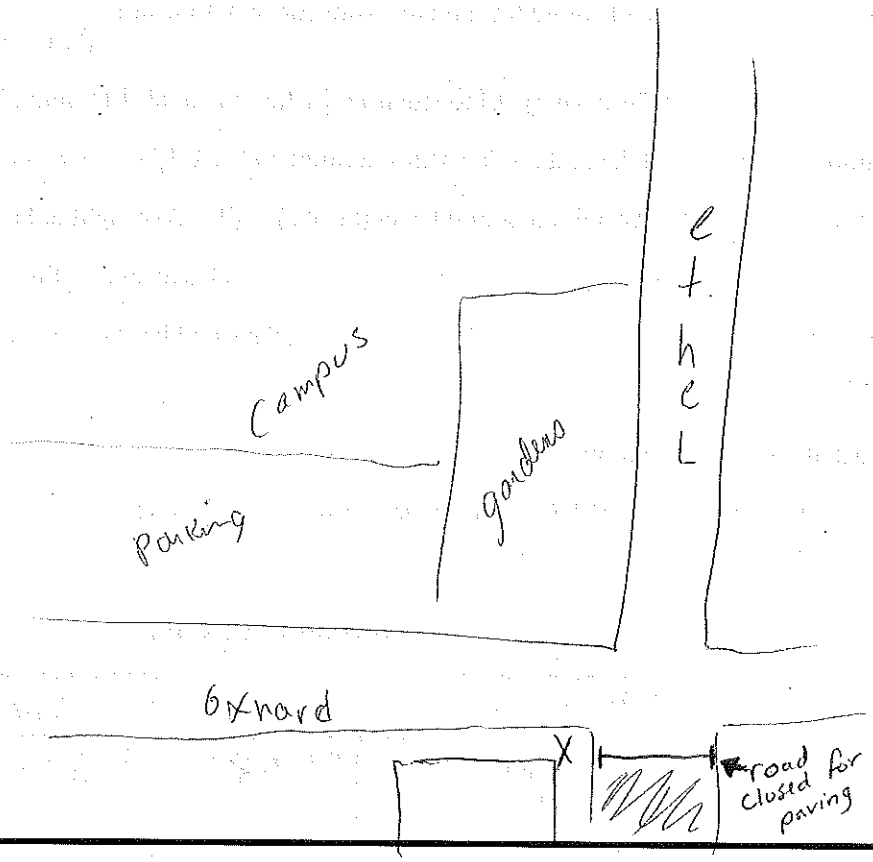
Monitoring Segment / Area: 020 Monitoring Site Address: 13059 Oxnard

Site Map

Plan View

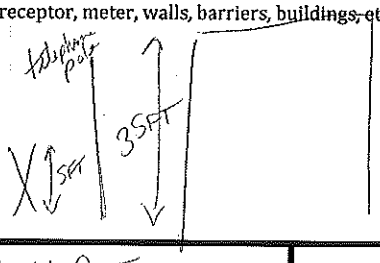
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17950	Longitude: 118.41805	Elevation: 683

Noise Monitor's Signature: _____ Date: _____

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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1221 Project Number: 6013

Monitoring Segment / Area: 021 Monitoring Site Address: 5712 Ethel

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 0 mph [km/hr] Approximate Wind Direction: From the —

Approximate distance of sound level meter from receptor location: 25ft

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☐ Residential ☑ Institutional ☐ Comm./Ind. ☐ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1221 Measurement End Time: 1236

Total Measurement Time: 15 mins Session File Name (e.g., S012): S057

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.8	Post: 113.7
L_{eq} (h)	Slow: 59.1	Fast:
L_{max}	Slow: 74.4	Fast:
L_{90}	Slow: 50.4	Fast:

Field Notes:

1. Photo 61-63
2. Helicopter flew over at 1235
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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949.788.4900

Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 1221 Project Number: 6013

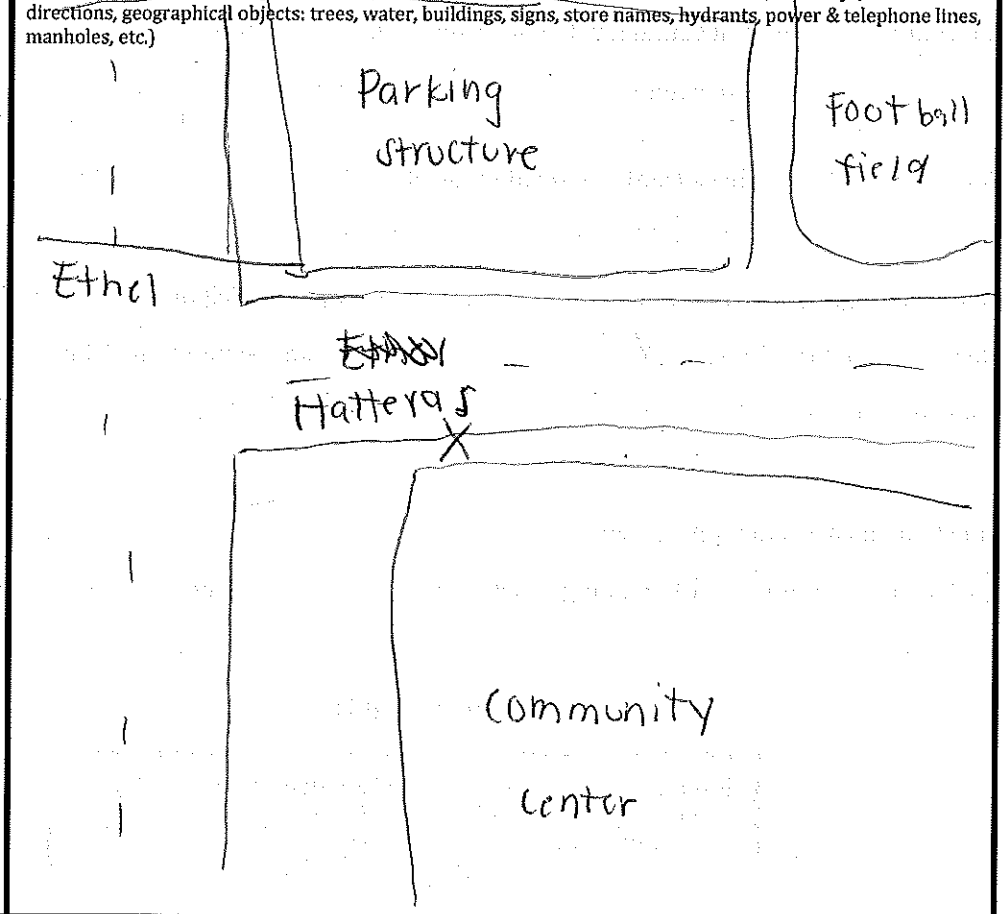
Monitoring Segment / Area: 021 Monitoring Site Address: 5712 Ethel Community Center

Site Map

Plan View

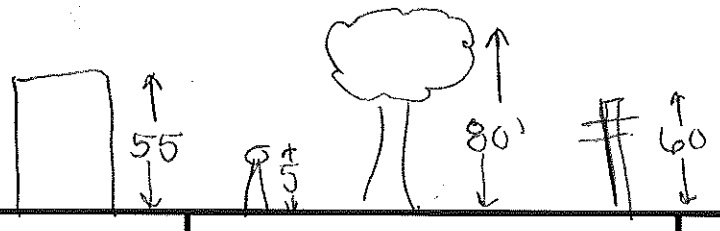
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17553	Longitude: 118.41788	Elevation: 671

Noise Monitor's Signature: [signature] Date: 10/20/16

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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part A

Date: 10/20/16 Day of Week: Thurs Time: 1240 Project Number: 6013

Monitoring Segment / Area: 022 Monitoring Site Address: Next to LA Valley College Stadium

Measurement Taken By: S. Seferyn / E. Mendoza of UltraSystems Environmental

Approximate Wind Speed: 10 mph [km/hr] Approximate Wind Direction: From the N

Approximate distance of sound level meter from receptor location: 10 FT

Approximate distance of sound level meter from construction site: —
(Leave Blank for Baseline Ambient)

Receptor Land Use (Check One): ☐ Residential ☑ Institutional ☐ Comm./Ind. ☑ Recreational

Sound Level Meter: Make and Model: Quest SoundPro DL-1-1/3 Serial Number: BLH080004

Meter Setting: ☑ A-Weighted Sound Level (SLOW) ☐ A-Weighted Sound Level (FAST)

Measurement Start Time: 1240 Measurement End Time: 1255

Total Measurement Time: 15 mins Session File Name (e.g., S012): S058

Check the measurement purpose:

☑ Baseline condition ☐ Ongoing construction ☐ Major change ☐ Complaint response

Measurement Results

Measurement Type	Measured Levels (dB)	
Calibration	Pre: 113.7	Post: 113.7
$L_{eq\,(h)}$	Slow: 62.3	Fast:
L_{max}	Slow: 77.8	Fast:
L_{90}	Slow: 48.6	Fast:

Field Notes:

1. Photos 64-66
2. No children or young adults on any recreation field
3.

Noise Monitor's Signature: [signature] Date: 10/20/16

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Irvine, CA 92618
949.788.4900

Noise Measurement Report Form – Part B

Date: 10/20/16 Day of Week: Thurs Time: 1240 Project Number: 6013

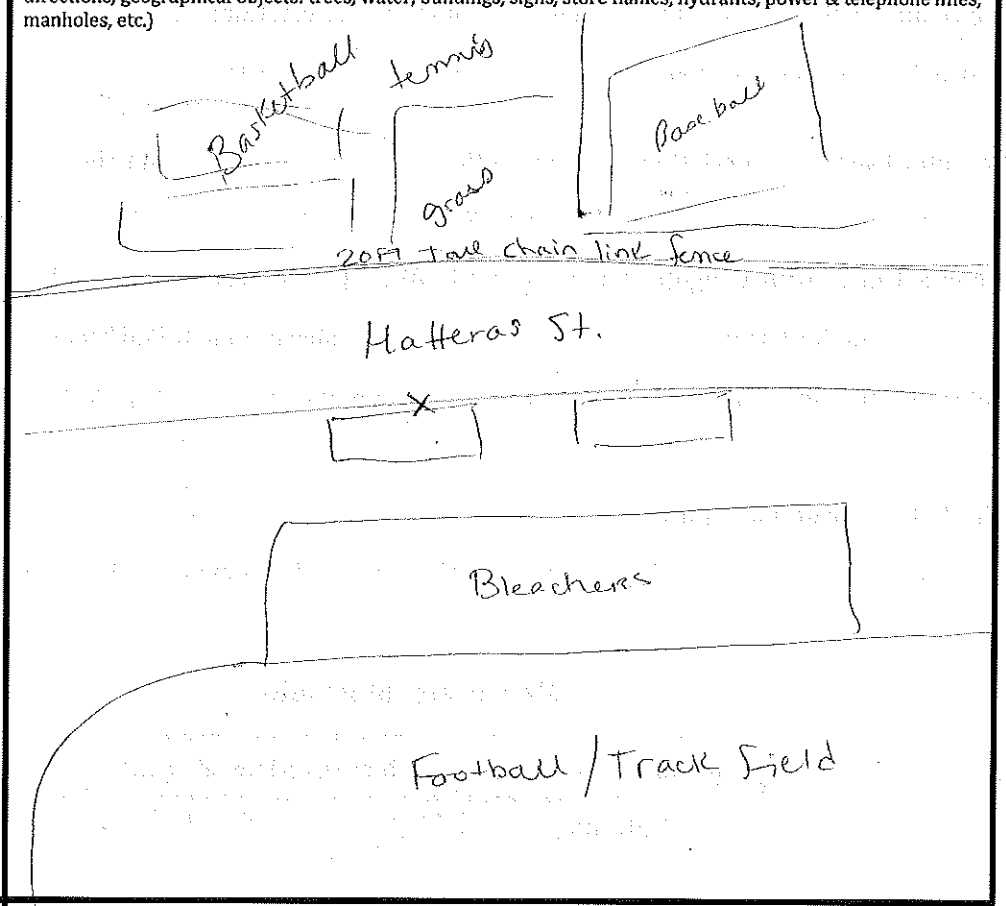
Monitoring Segment / Area: 022 Monitoring Site Address: Next to LA Valley College Stadium

Site Map

Plan View

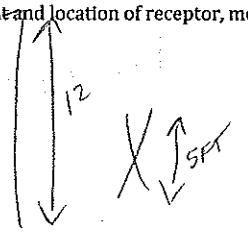
North Arrow (fill-in)

(Indicate site location, receptor location, meter location, distance in feet to landmarks, roadways, travel lane directions, geographical objects: trees, water, buildings, signs, store names, hydrants, power & telephone lines, manholes, etc.)



Elevation View

(Indicate terrain, roadway, height and location of receptor, meter, walls, barriers, buildings, etc.)



Latitude: 34.17558	Longitude: 118.41624	Elevation: 664

Noise Monitor's Signature: [signature] Date: 10/20/16

Session Report

10/25/2016

Information Panel

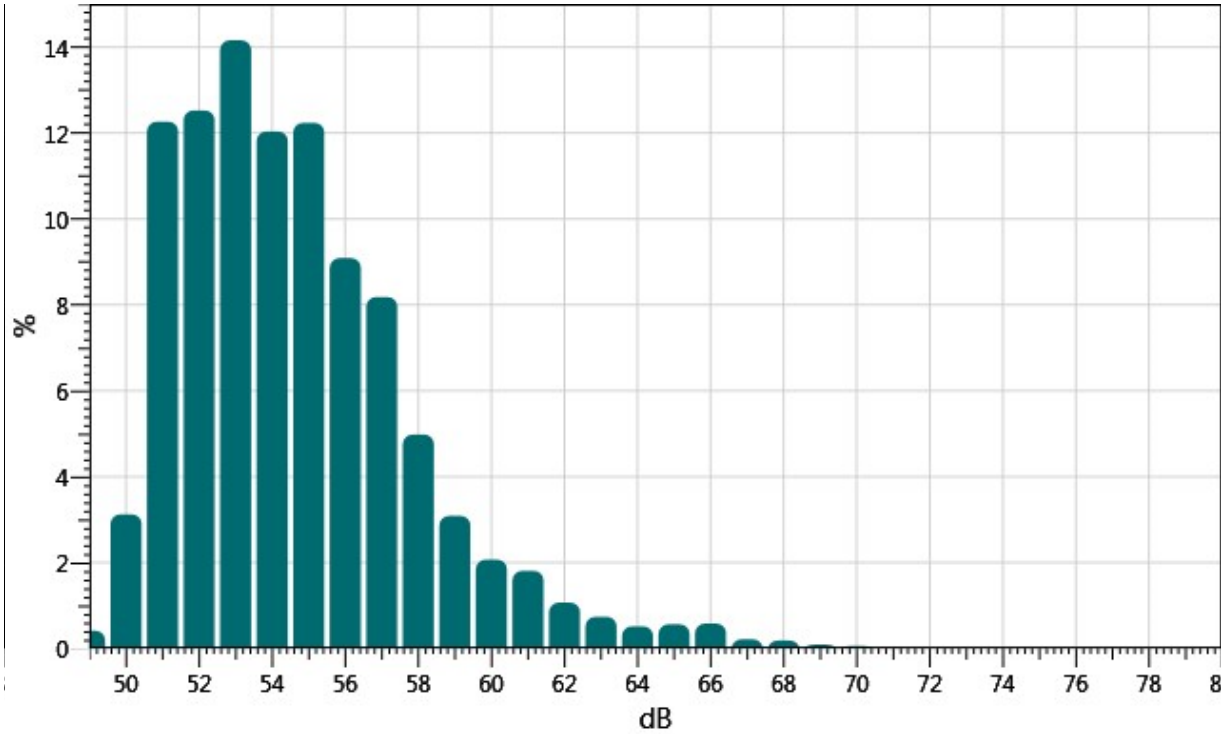
Name	S049_BLH080004_25102016_110318
Start Time	10/20/2016 8:09:07 AM
Stop Time	10/20/2016 8:24:07 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	56.8 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

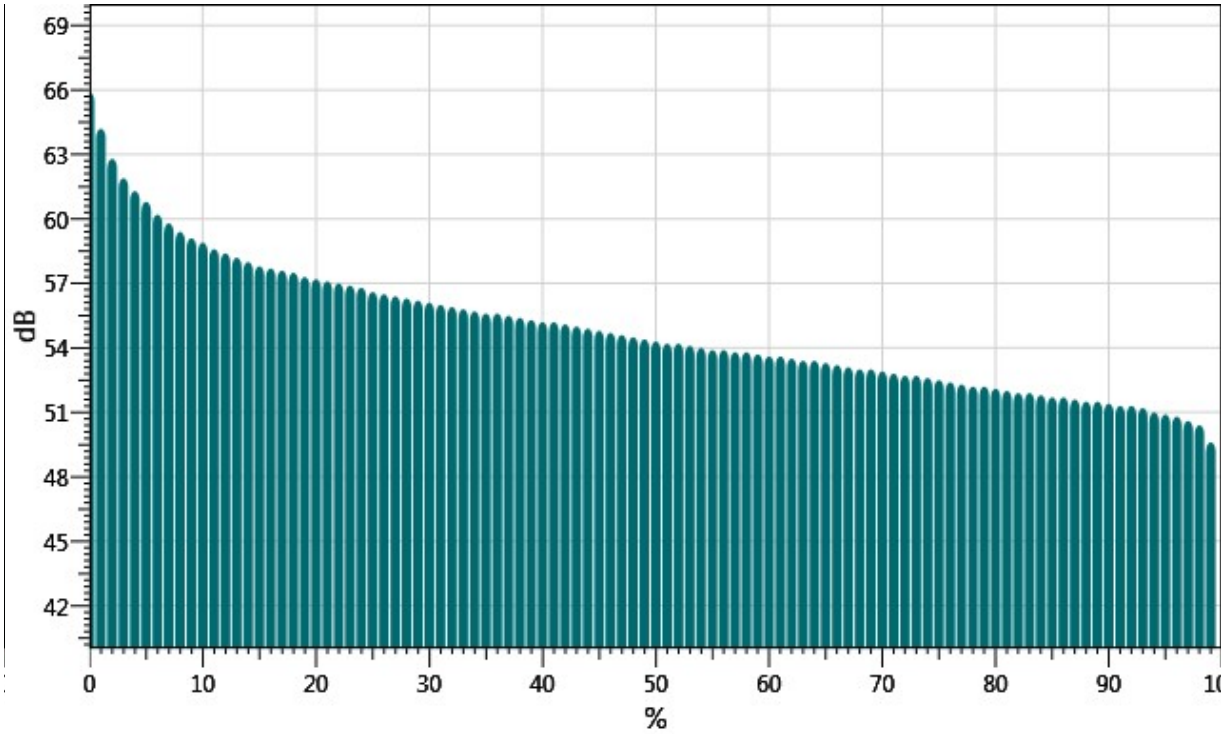
Statistics Chart

S049_BLH080004_25102016_110318: Statistics Chart



Exceedance Chart

S049_BLH080004_25102016_110318: Exceedance Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
49:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.28	0.41
50:	0.12	0.05	0.08	0.15	0.14	0.14	0.18	0.81	0.77	0.68	3.12
51:	0.62	1.01	0.73	0.98	1.17	1.77	1.64	1.39	1.42	1.52	12.26
52:	1.57	1.12	1.32	1.26	1.23	0.81	1.09	1.59	1.57	0.96	12.52
53:	1.24	1.54	1.27	1.28	1.33	1.49	1.42	1.49	1.43	1.68	14.16
54:	1.68	1.77	0.77	1.34	1.45	1.38	0.99	0.94	0.90	0.81	12.03
55:	1.13	1.02	1.27	1.16	1.28	1.37	1.20	1.17	1.18	1.45	12.23
56:	1.06	1.03	1.07	1.00	0.65	0.72	0.79	0.97	0.94	0.86	9.09
57:	1.01	0.93	0.69	0.92	0.76	0.76	0.88	0.86	0.71	0.65	8.18
58:	0.64	0.64	0.51	0.55	0.48	0.53	0.44	0.46	0.35	0.39	4.98
59:	0.44	0.37	0.37	0.31	0.27	0.31	0.25	0.25	0.25	0.26	3.09
60:	0.27	0.29	0.18	0.22	0.21	0.15	0.16	0.20	0.23	0.17	2.07
61:	0.20	0.23	0.19	0.18	0.16	0.19	0.18	0.22	0.14	0.11	1.81
62:	0.13	0.13	0.13	0.10	0.12	0.11	0.09	0.08	0.09	0.10	1.07
63:	0.06	0.09	0.06	0.07	0.08	0.08	0.07	0.06	0.08	0.09	0.74
64:	0.05	0.07	0.06	0.06	0.06	0.04	0.04	0.05	0.04	0.05	0.52
65:	0.05	0.06	0.06	0.07	0.07	0.05	0.05	0.06	0.04	0.07	0.56
66:	0.19	0.09	0.03	0.05	0.03	0.03	0.03	0.05	0.05	0.03	0.58
67:	0.04	0.02	0.02	0.02	0.03	0.02	0.02	0.01	0.02	0.02	0.21
68:	0.02	0.02	0.03	0.02	0.03	0.03	0.02	0.01	0.01	0.01	0.19
69:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.09
70:	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.06
71:	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

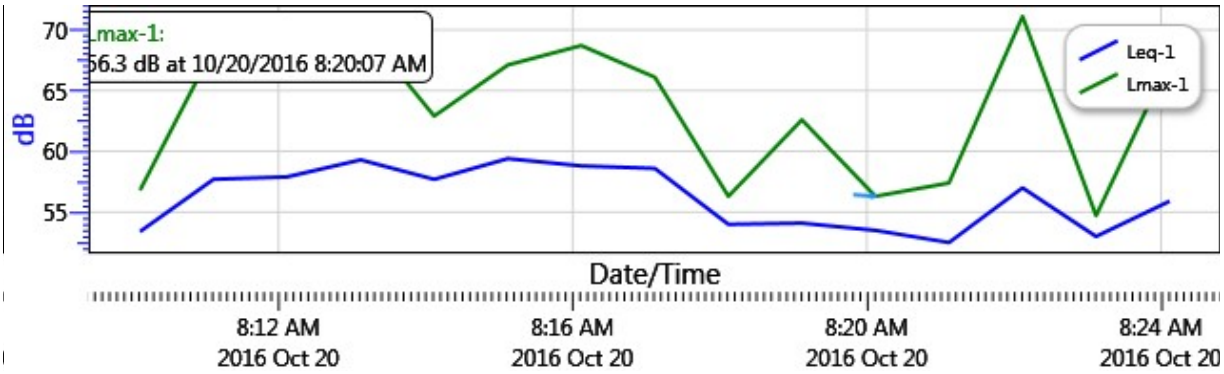
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		65.9	64.2	62.8	61.9	61.3	60.8	60.2	59.8	59.4
10%:	59.1	58.9	58.6	58.4	58.2	58.0	57.8	57.7	57.6	57.5
20%:	57.3	57.2	57.1	57.0	56.9	56.8	56.6	56.5	56.4	56.3
30%:	56.2	56.1	56.0	55.9	55.8	55.7	55.6	55.6	55.5	55.4
40%:	55.3	55.2	55.2	55.1	55.0	54.9	54.8	54.7	54.6	54.5
50%:	54.4	54.3	54.2	54.2	54.1	54.0	53.9	53.9	53.8	53.8
60%:	53.7	53.6	53.6	53.5	53.4	53.4	53.3	53.2	53.1	53.0
70%:	53.0	52.9	52.8	52.7	52.7	52.6	52.5	52.4	52.3	52.2

80%:	52.2	52.1	52.0	51.9	51.9	51.8	51.7	51.7	51.6	51.5
90%:	51.5	51.4	51.3	51.3	51.2	51.0	50.9	50.8	50.6	50.4
100%:	49.6									

Logged Data Chart

S049_BLH080004_25102016_110318: Logged Data Chart



Session Report

10/25/2016

Information Panel

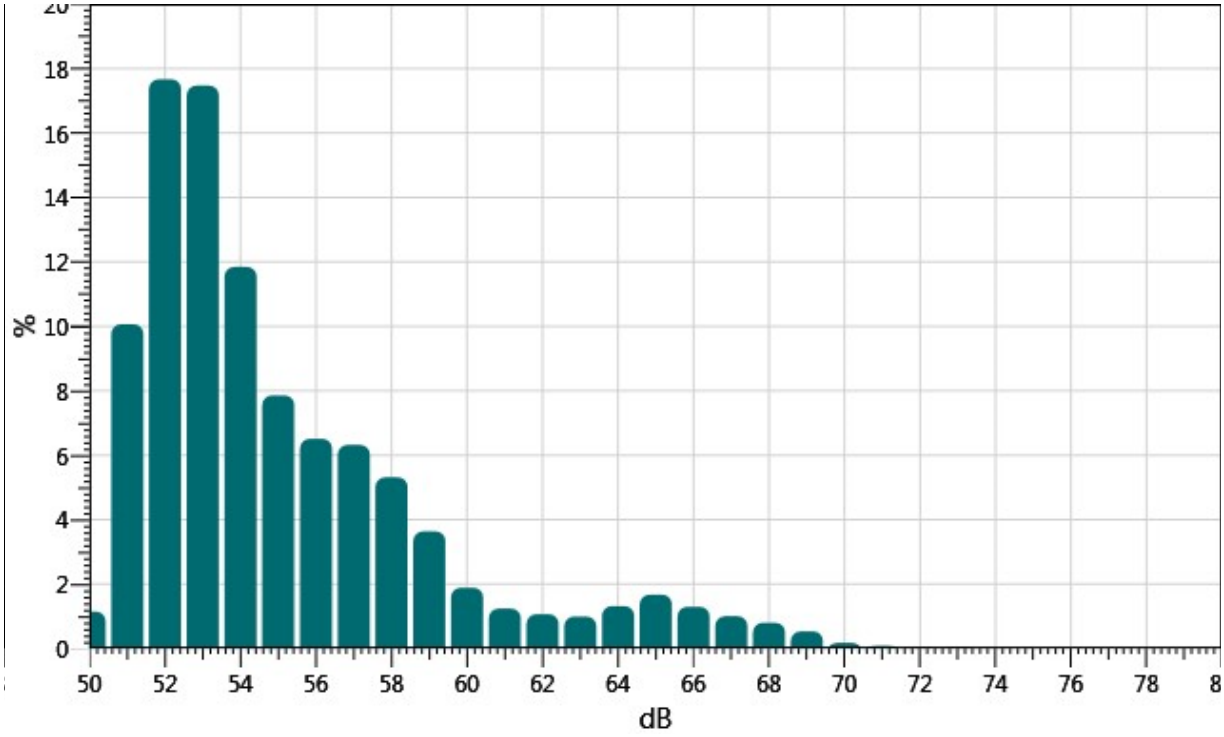
Name	S050_BLH080004_25102016_110319
Start Time	10/20/2016 8:31:34 AM
Stop Time	10/20/2016 8:46:34 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	58.5 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

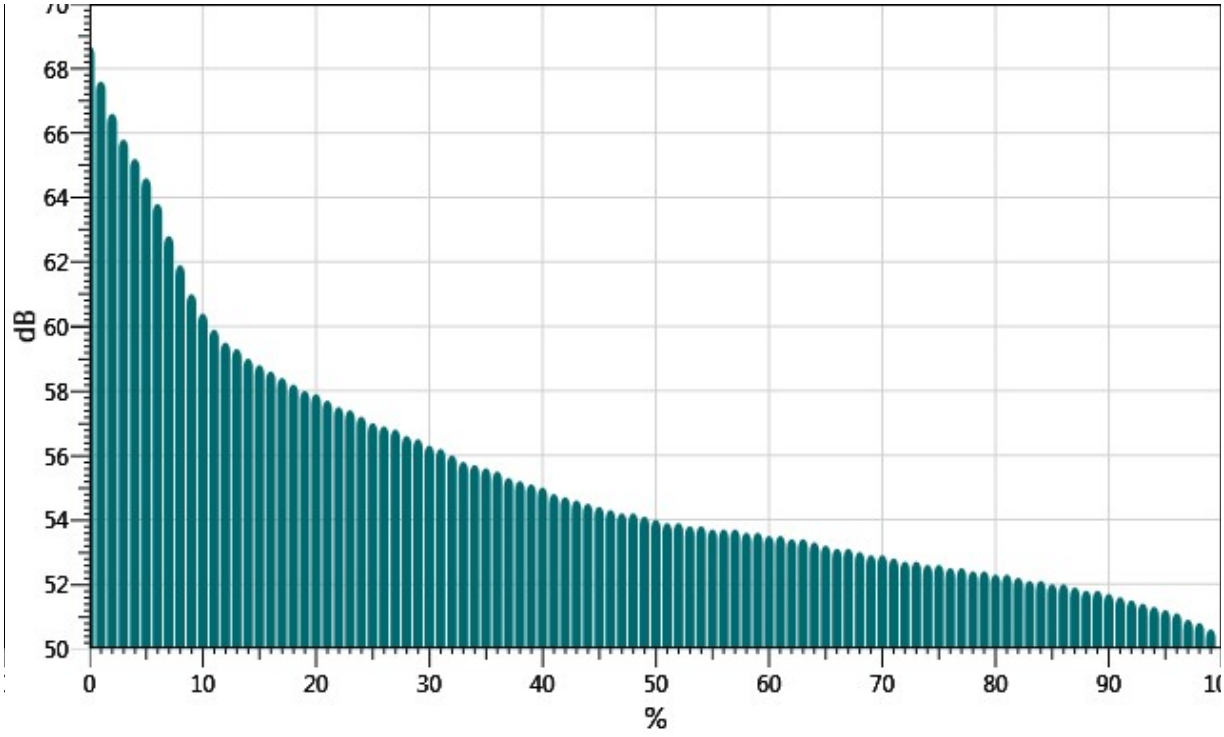
Statistics Chart

S050_BLH080004_25102016_110319: Statistics Chart



Exceedance Chart

S050_BLH080004_25102016_110319: Exceedance Chart



Statistics Table

dB:	0.0	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	0.10	0.52	0.53	1.15
51:	1.03	0.82	0.75	0.93	0.87	0.80	0.96	1.06	1.35	1.49	10.06
52:	1.69	1.33	1.81	1.77	1.85	1.84	2.09	1.99	1.78	1.50	17.67
53:	1.58	1.41	1.26	1.24	1.55	1.82	1.79	2.06	2.54	2.21	17.47
54:	1.85	1.52	1.18	1.51	1.31	1.14	0.84	0.91	0.88	0.71	11.84
55:	0.71	0.76	0.75	0.73	0.90	0.87	1.02	0.81	0.66	0.65	7.85
56:	0.60	0.60	0.56	0.67	0.64	0.69	0.59	0.66	0.69	0.80	6.51
57:	0.82	0.75	0.46	0.53	0.76	0.59	0.72	0.60	0.52	0.59	6.32
58:	0.64	0.51	0.56	0.55	0.60	0.54	0.54	0.38	0.44	0.56	5.31
59:	0.42	0.49	0.35	0.34	0.35	0.43	0.44	0.31	0.27	0.25	3.64
60:	0.27	0.34	0.17	0.20	0.15	0.10	0.17	0.15	0.15	0.18	1.89
61:	0.16	0.13	0.17	0.18	0.11	0.12	0.11	0.09	0.09	0.09	1.24
62:	0.08	0.11	0.10	0.08	0.12	0.16	0.10	0.12	0.09	0.10	1.07
63:	0.12	0.11	0.06	0.14	0.09	0.09	0.09	0.11	0.08	0.10	0.99
64:	0.10	0.12	0.12	0.11	0.13	0.14	0.15	0.14	0.15	0.18	1.32
65:	0.18	0.17	0.15	0.18	0.16	0.17	0.18	0.16	0.16	0.16	1.67
66:	0.16	0.13	0.11	0.13	0.13	0.13	0.15	0.14	0.11	0.11	1.30
67:	0.10	0.10	0.09	0.10	0.10	0.11	0.10	0.10	0.10	0.11	1.00
68:	0.08	0.07	0.09	0.10	0.07	0.07	0.07	0.07	0.10	0.08	0.80
69:	0.07	0.07	0.04	0.04	0.05	0.05	0.07	0.05	0.03	0.07	0.53
70:	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.03	0.03	0.01	0.18
71:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.00	0.09
72:	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
73:	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.04
74:	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02

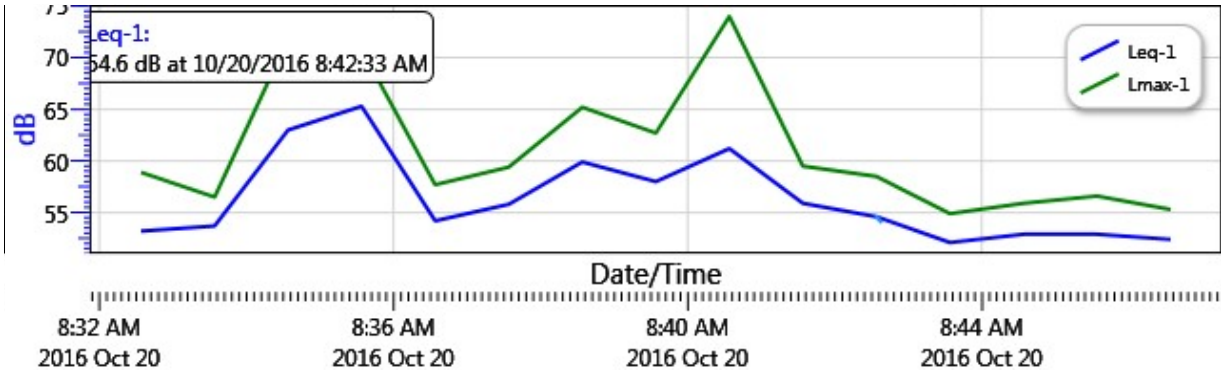
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		68.7	67.6	66.6	65.8	65.2	64.6	63.8	62.8	61.9
10%:	61.0	60.4	59.9	59.5	59.3	59.0	58.8	58.6	58.4	58.2
20%:	58.0	57.9	57.7	57.5	57.4	57.2	57.0	56.9	56.8	56.6
30%:	56.5	56.3	56.2	56.0	55.8	55.7	55.6	55.5	55.3	55.2
40%:	55.1	55.0	54.8	54.7	54.6	54.5	54.4	54.3	54.2	54.2
50%:	54.1	54.0	53.9	53.9	53.8	53.8	53.7	53.7	53.7	53.6

60%:	53.6	53.5	53.5	53.4	53.4	53.3	53.2	53.1	53.1	53.0
70%:	52.9	52.9	52.8	52.7	52.7	52.6	52.6	52.5	52.5	52.4
80%:	52.4	52.3	52.3	52.2	52.1	52.1	52.0	52.0	51.9	51.8
90%:	51.8	51.7	51.6	51.5	51.4	51.3	51.2	51.1	50.9	50.8
100%:	50.6									

Logged Data Chart

S050_BLH080004_25102016_110319: Logged Data Chart



Session Report

10/25/2016

Information Panel

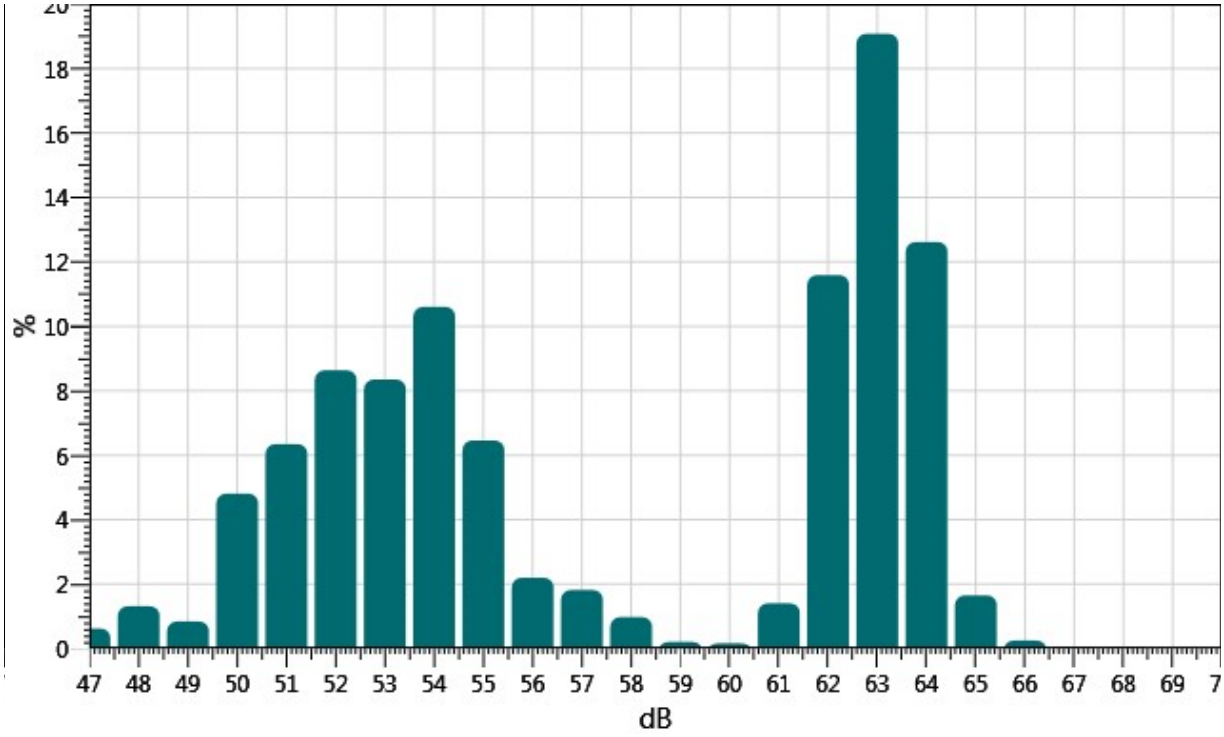
Name	S051_BLH080004_25102016_110319
Start Time	10/20/2016 8:51:04 AM
Stop Time	10/20/2016 9:06:04 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	60.7 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

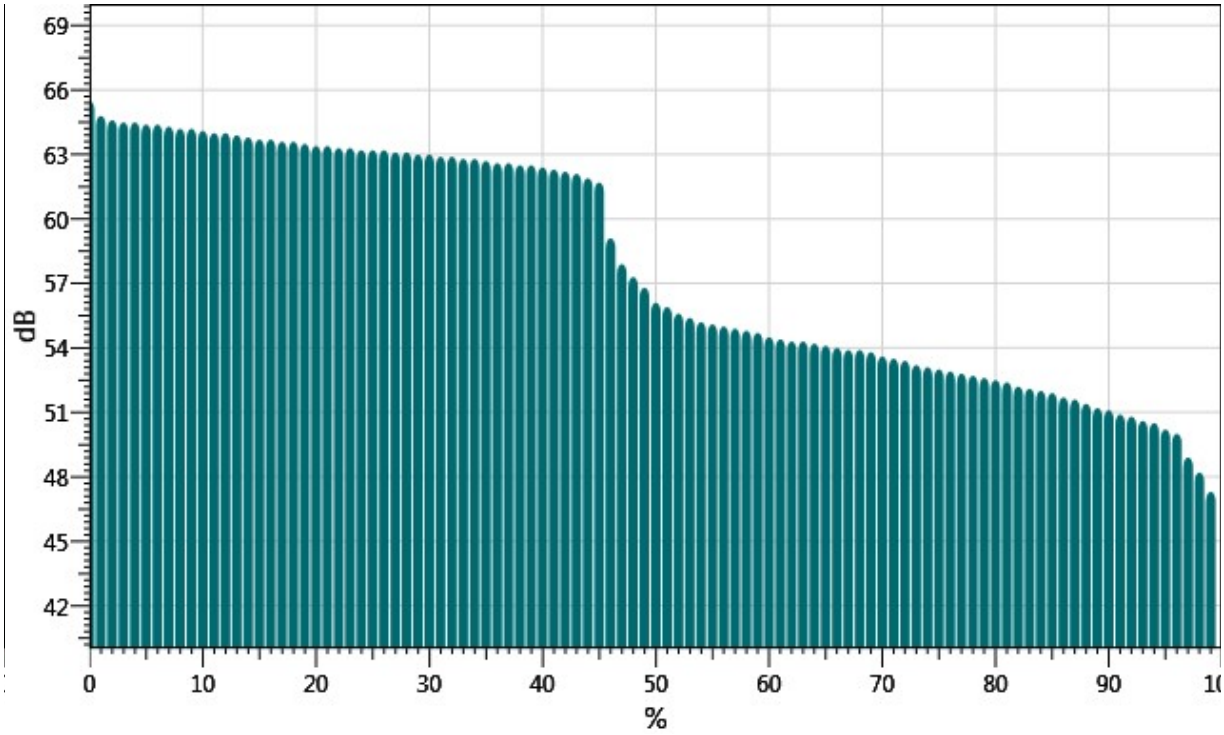
Statistics Chart

S051_BLH080004_25102016_110319: Statistics Chart



Exceedance Chart

S051_BLH080004_25102016_110319: Exceedance Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
47:	0.00	0.00	0.00	0.00	0.02	0.13	0.18	0.14	0.06	0.09	0.62
48:	0.10	0.11	0.07	0.11	0.13	0.17	0.26	0.19	0.10	0.06	1.31
49:	0.07	0.06	0.10	0.14	0.07	0.05	0.07	0.06	0.10	0.11	0.84
50:	0.20	0.36	0.41	0.40	0.36	0.43	0.56	0.63	0.80	0.67	4.81
51:	0.68	0.63	0.47	0.73	0.64	0.52	0.49	0.74	0.73	0.71	6.35
52:	0.62	0.87	0.91	0.68	0.95	0.99	1.05	0.90	0.80	0.86	8.63
53:	0.86	0.95	0.96	0.74	0.67	0.74	0.83	0.73	0.81	1.07	8.35
54:	1.48	1.40	0.95	1.22	1.13	1.10	0.95	0.81	0.73	0.84	10.60
55:	0.81	0.83	1.05	0.85	0.69	0.37	0.40	0.50	0.59	0.37	6.46
56:	0.36	0.32	0.36	0.18	0.16	0.18	0.13	0.14	0.14	0.23	2.20
57:	0.20	0.16	0.13	0.24	0.21	0.11	0.20	0.21	0.18	0.17	1.82
58:	0.17	0.20	0.13	0.11	0.04	0.07	0.07	0.08	0.07	0.02	0.97
59:	0.02	0.02	0.02	0.02	0.04	0.02	0.04	0.02	0.01	0.01	0.21
60:	0.02	0.02	0.02	0.05	0.03	0.01	0.00	0.00	0.01	0.00	0.16
61:	0.01	0.00	0.00	0.01	0.04	0.04	0.15	0.33	0.36	0.46	1.40
62:	0.45	0.56	0.55	0.74	1.09	1.84	1.50	1.86	1.39	1.62	11.59
63:	1.78	2.31	2.02	2.71	1.97	1.90	1.75	1.63	1.64	1.37	19.08
64:	1.39	1.53	1.40	1.44	1.63	2.16	1.67	0.73	0.40	0.26	12.62
65:	0.26	0.11	0.19	0.12	0.13	0.12	0.20	0.23	0.23	0.05	1.65
66:	0.06	0.09	0.02	0.04	0.01	0.01	0.01	0.00	0.01	0.00	0.25
67:	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.04
68:	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.04

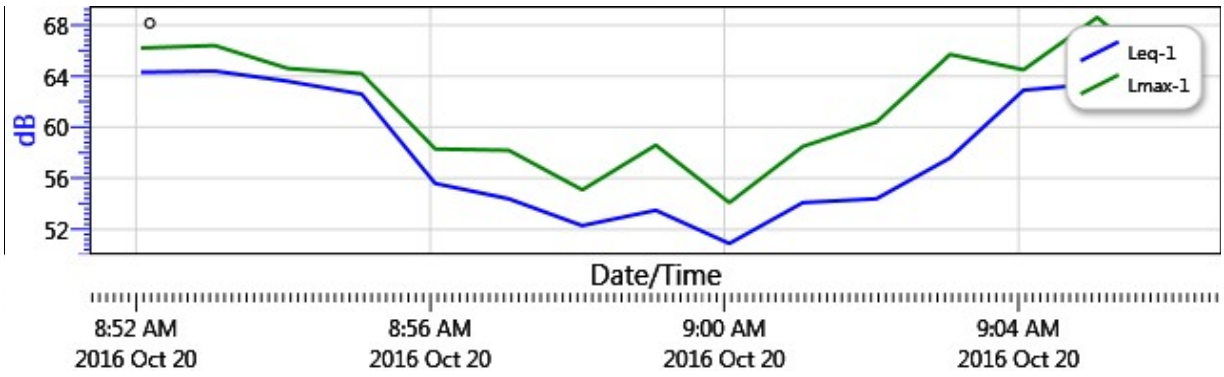
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		65.5	64.8	64.6	64.5	64.5	64.4	64.4	64.3	64.2
10%:	64.2	64.1	64.0	64.0	63.9	63.8	63.7	63.7	63.6	63.6
20%:	63.5	63.4	63.4	63.3	63.3	63.2	63.2	63.2	63.1	63.1
30%:	63.0	63.0	62.9	62.9	62.8	62.8	62.7	62.6	62.6	62.5
40%:	62.5	62.4	62.3	62.2	62.1	61.9	61.7	59.1	57.9	57.3
50%:	56.8	56.1	55.9	55.6	55.4	55.2	55.1	55.0	54.9	54.8
60%:	54.7	54.5	54.4	54.3	54.3	54.2	54.1	54.0	53.9	53.9
70%:	53.8	53.6	53.5	53.4	53.2	53.1	53.0	52.9	52.8	52.7
80%:	52.6	52.5	52.4	52.2	52.1	52.0	51.9	51.7	51.6	51.4

90%:	51.2	51.1	50.9	50.8	50.6	50.5	50.2	50.0	48.9	48.2
100%:	47.3									

Logged Data Chart

S051_BLH080004_25102016_110319: Logged Data Chart



Session Report

10/25/2016

Information Panel

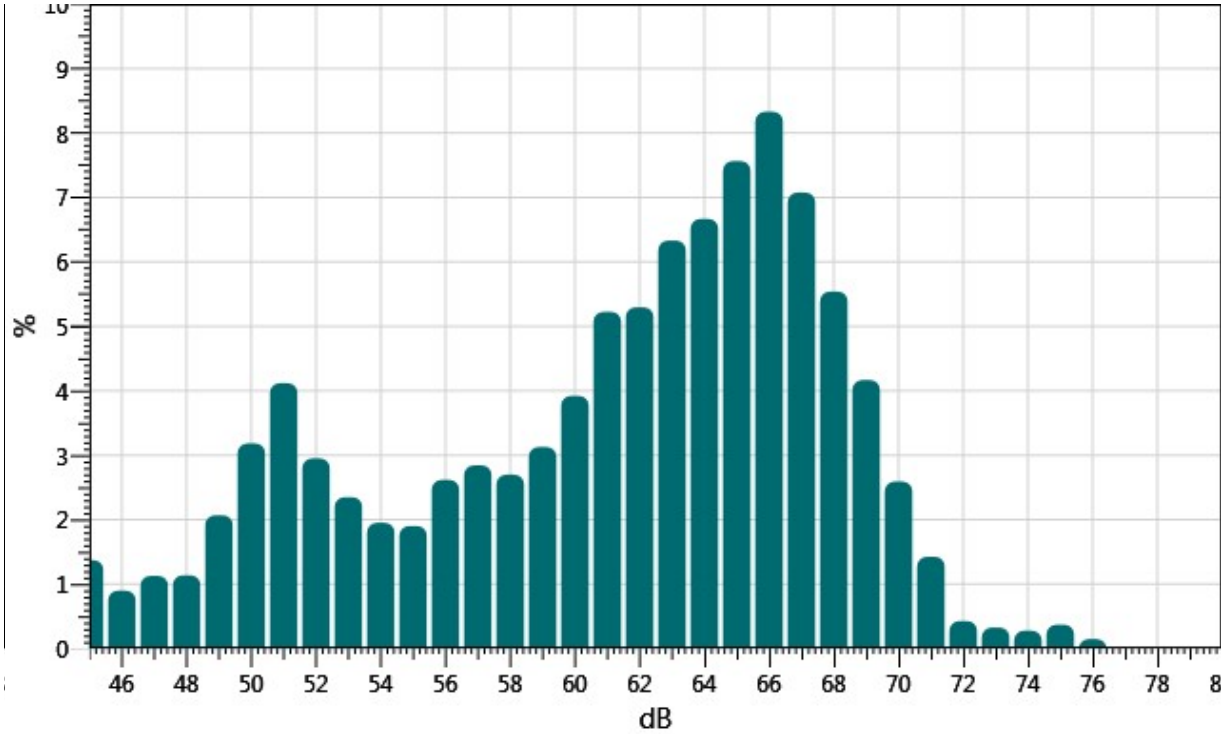
Name	S052_BLH080004_25102016_110320
Start Time	10/20/2016 9:42:11 AM
Stop Time	10/20/2016 9:57:11 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	65.2 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

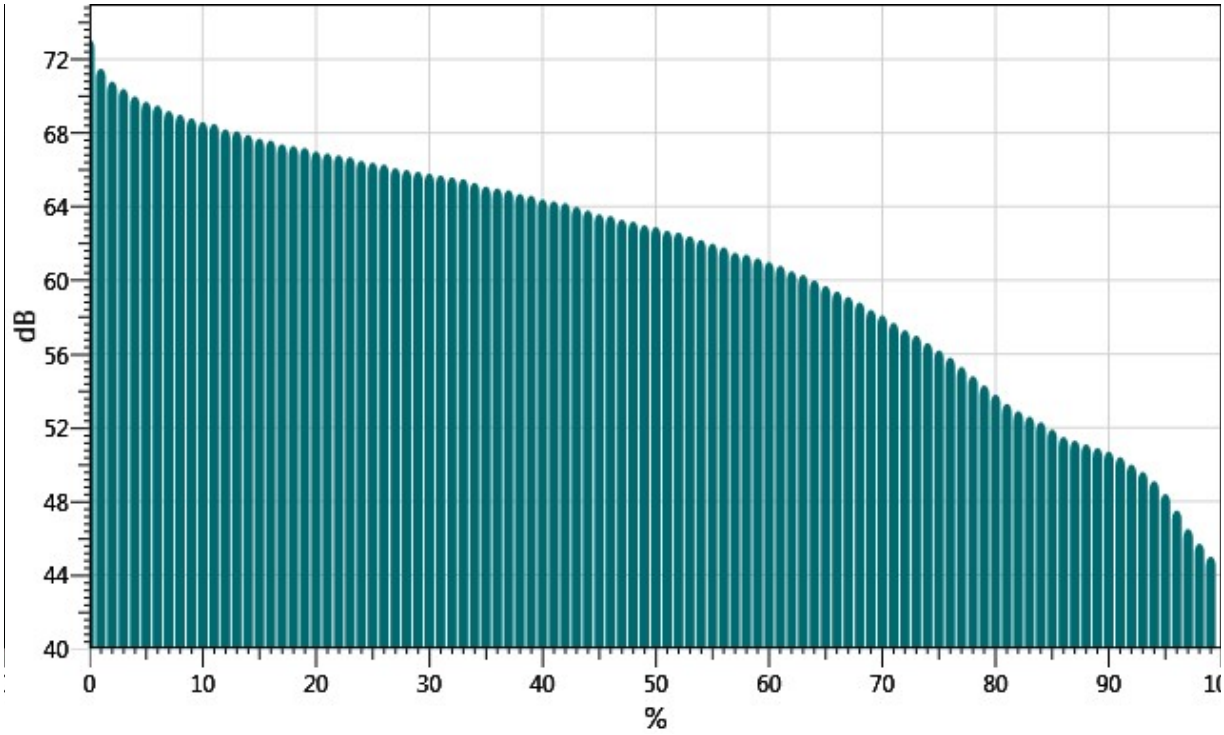
Statistics Chart

S052_BLH080004_25102016_110320: Statistics Chart



Exceedance Chart

S052_BLH080004_25102016_110320: Exceedance Chart



Statistics Table

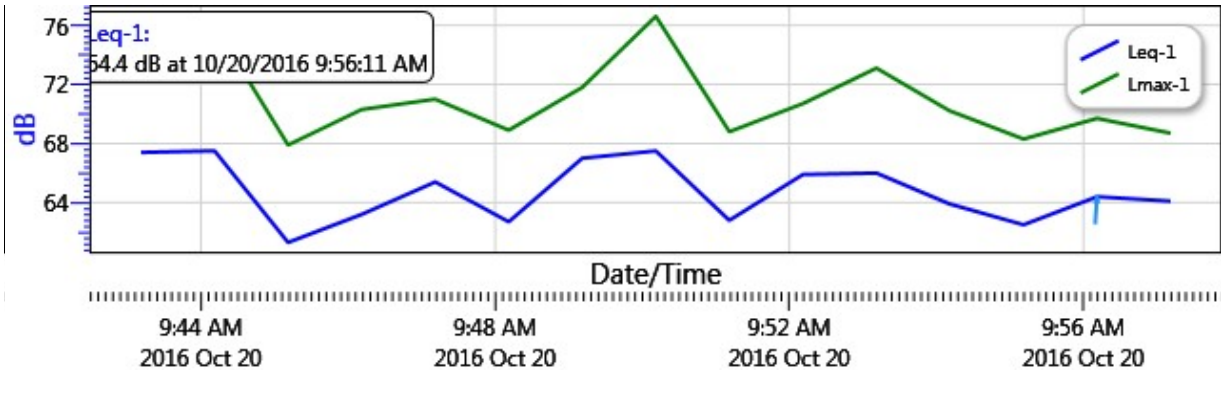
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
45:	0.00	0.03	0.06	0.06	0.06	0.06	0.19	0.18	0.39	0.36	1.37
46:	0.17	0.09	0.08	0.08	0.09	0.11	0.07	0.06	0.08	0.08	0.90
47:	0.14	0.13	0.13	0.08	0.10	0.09	0.10	0.10	0.07	0.19	1.13
48:	0.13	0.12	0.06	0.14	0.11	0.12	0.12	0.07	0.12	0.14	1.14
49:	0.13	0.16	0.21	0.12	0.18	0.24	0.25	0.24	0.30	0.25	2.07
50:	0.27	0.21	0.24	0.22	0.26	0.22	0.46	0.36	0.32	0.63	3.18
51:	0.60	0.53	0.27	0.46	0.50	0.48	0.40	0.33	0.29	0.26	4.12
52:	0.25	0.22	0.24	0.32	0.30	0.31	0.43	0.39	0.26	0.24	2.95
53:	0.26	0.23	0.24	0.27	0.23	0.21	0.25	0.21	0.24	0.20	2.35
54:	0.19	0.21	0.12	0.20	0.21	0.20	0.24	0.23	0.16	0.19	1.95
55:	0.17	0.15	0.16	0.18	0.22	0.16	0.19	0.20	0.22	0.26	1.90
56:	0.27	0.32	0.27	0.26	0.30	0.24	0.24	0.23	0.23	0.26	2.62
57:	0.27	0.31	0.23	0.31	0.30	0.31	0.28	0.28	0.28	0.26	2.84
58:	0.25	0.23	0.27	0.32	0.26	0.30	0.27	0.26	0.27	0.28	2.70
59:	0.26	0.32	0.28	0.33	0.34	0.28	0.27	0.32	0.39	0.33	3.13
60:	0.33	0.36	0.31	0.39	0.40	0.44	0.45	0.43	0.38	0.43	3.92
61:	0.44	0.52	0.54	0.58	0.58	0.61	0.51	0.51	0.45	0.49	5.22
62:	0.40	0.49	0.51	0.43	0.47	0.57	0.62	0.57	0.56	0.67	5.30
63:	0.82	0.80	0.56	0.72	0.63	0.56	0.59	0.62	0.57	0.46	6.33
64:	0.52	0.65	0.67	0.77	0.67	0.69	0.63	0.70	0.64	0.72	6.67
65:	0.65	0.83	0.76	0.66	0.60	0.69	0.82	0.86	0.81	0.89	7.56
66:	1.06	1.10	0.57	0.69	0.66	0.77	0.87	0.92	0.98	0.72	8.33
67:	0.69	0.75	0.65	0.80	0.70	0.78	0.83	0.58	0.64	0.65	7.07
68:	0.60	0.54	0.59	0.64	0.46	0.43	0.59	0.51	0.61	0.56	5.54
69:	0.51	0.63	0.43	0.40	0.34	0.34	0.35	0.43	0.37	0.38	4.16
70:	0.38	0.27	0.24	0.32	0.32	0.23	0.20	0.16	0.18	0.28	2.59
71:	0.23	0.17	0.16	0.21	0.10	0.08	0.09	0.11	0.13	0.12	1.42
72:	0.09	0.06	0.04	0.02	0.03	0.04	0.03	0.05	0.03	0.04	0.43
73:	0.05	0.05	0.02	0.03	0.03	0.03	0.05	0.02	0.02	0.02	0.33
74:	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.05	0.03	0.03	0.28
75:	0.07	0.03	0.03	0.02	0.03	0.03	0.04	0.06	0.04	0.04	0.37
76:	0.02	0.01	0.03	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.15

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		73.1	71.5	70.8	70.4	70.0	69.7	69.5	69.2	69.0
10%:	68.8	68.6	68.5	68.2	68.1	67.9	67.7	67.6	67.4	67.3
20%:	67.2	67.0	66.9	66.8	66.7	66.5	66.4	66.3	66.1	66.0
30%:	65.9	65.8	65.7	65.6	65.5	65.3	65.1	65.0	64.9	64.7
40%:	64.6	64.4	64.3	64.2	64.0	63.8	63.6	63.5	63.3	63.2
50%:	63.0	62.9	62.7	62.6	62.4	62.2	62.0	61.8	61.5	61.4
60%:	61.2	61.0	60.8	60.5	60.3	60.0	59.7	59.4	59.1	58.8
70%:	58.4	58.1	57.7	57.3	57.0	56.6	56.2	55.8	55.3	54.8
80%:	54.3	53.8	53.3	52.9	52.6	52.3	51.9	51.5	51.3	51.1
90%:	50.9	50.7	50.4	50.0	49.6	49.1	48.4	47.5	46.5	45.7
100%:	45.0									

Logged Data Chart

S052_BLH080004_25102016_110320: Logged Data Chart



Session Report

10/25/2016

Information Panel

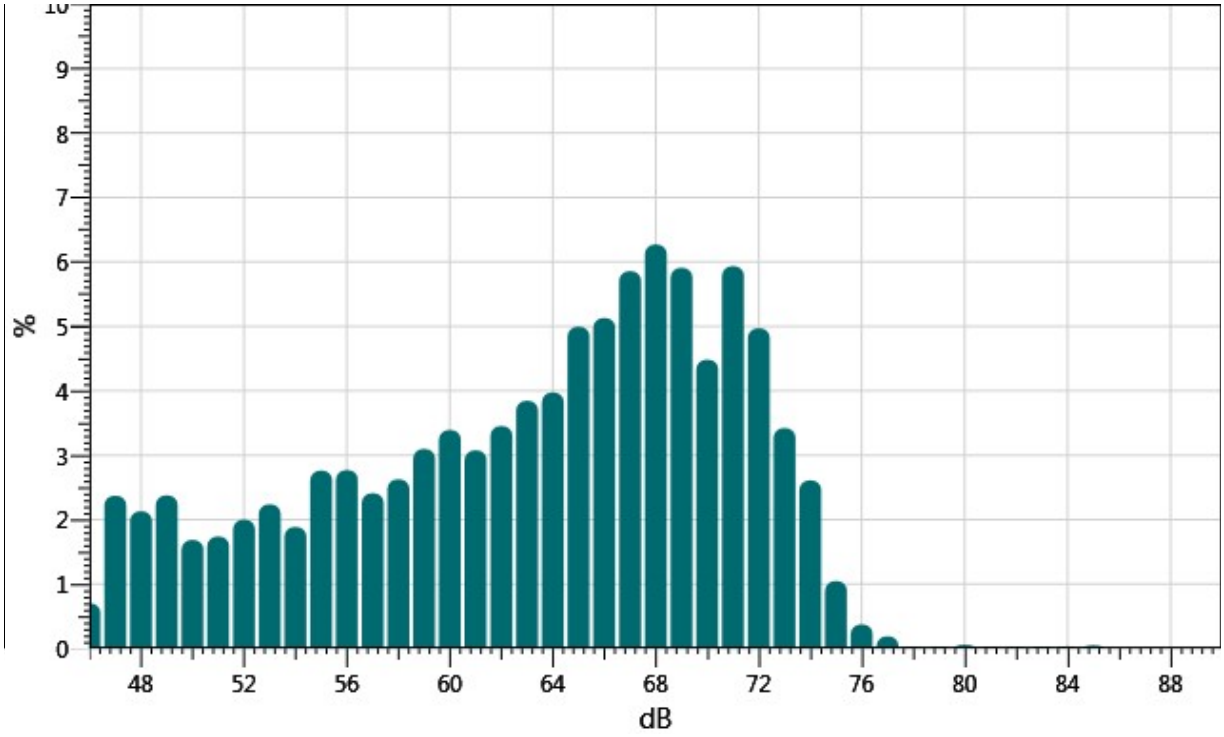
Name	S053_BLH080004_25102016_110321
Start Time	10/20/2016 10:02:19 AM
Stop Time	10/20/2016 10:17:19 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.4 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

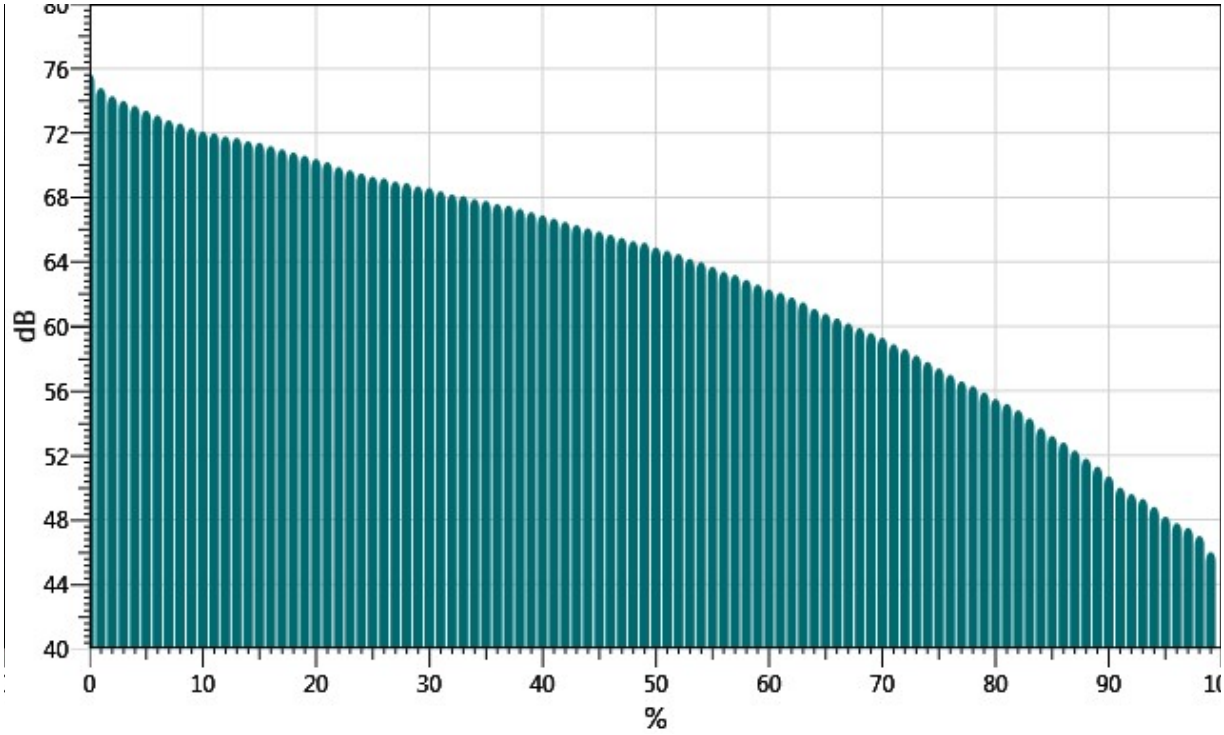
Statistics Chart

S053_BLH080004_25102016_110321: Statistics Chart



Exceedance Chart

S053_BLH080004_25102016_110321: Exceedance Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
46:	0.00	0.02	0.04	0.07	0.07	0.07	0.09	0.13	0.13	0.10	0.70
47:	0.15	0.24	0.25	0.17	0.17	0.27	0.20	0.26	0.30	0.35	2.37
48:	0.36	0.29	0.23	0.31	0.13	0.12	0.11	0.14	0.21	0.23	2.13
49:	0.14	0.15	0.16	0.22	0.26	0.22	0.36	0.43	0.25	0.19	2.38
50:	0.19	0.26	0.14	0.14	0.14	0.19	0.19	0.14	0.12	0.16	1.68
51:	0.15	0.16	0.10	0.18	0.15	0.13	0.18	0.26	0.18	0.24	1.74
52:	0.23	0.19	0.19	0.20	0.21	0.21	0.24	0.16	0.20	0.17	2.00
53:	0.19	0.26	0.26	0.30	0.26	0.20	0.16	0.16	0.21	0.22	2.24
54:	0.24	0.23	0.10	0.17	0.16	0.14	0.18	0.19	0.22	0.26	1.89
55:	0.25	0.26	0.31	0.30	0.29	0.26	0.32	0.27	0.26	0.25	2.76
56:	0.22	0.27	0.31	0.26	0.26	0.24	0.27	0.33	0.33	0.28	2.77
57:	0.30	0.29	0.22	0.25	0.23	0.26	0.23	0.22	0.22	0.21	2.41
58:	0.25	0.26	0.25	0.26	0.21	0.22	0.25	0.30	0.29	0.33	2.63
59:	0.31	0.32	0.28	0.31	0.30	0.31	0.30	0.34	0.32	0.31	3.10
60:	0.38	0.40	0.25	0.35	0.37	0.36	0.33	0.28	0.32	0.35	3.39
61:	0.36	0.31	0.30	0.27	0.28	0.28	0.34	0.28	0.30	0.35	3.07
62:	0.38	0.35	0.32	0.38	0.36	0.36	0.32	0.30	0.32	0.37	3.45
63:	0.43	0.36	0.27	0.47	0.46	0.43	0.39	0.36	0.36	0.32	3.84
64:	0.43	0.35	0.32	0.38	0.36	0.39	0.40	0.39	0.45	0.51	3.97
65:	0.49	0.45	0.48	0.55	0.51	0.64	0.49	0.45	0.46	0.45	4.99
66:	0.55	0.56	0.44	0.55	0.51	0.52	0.52	0.54	0.42	0.51	5.13
67:	0.48	0.52	0.63	0.52	0.56	0.57	0.59	0.74	0.67	0.57	5.86
68:	0.65	0.62	0.65	0.60	0.62	0.56	0.55	0.62	0.69	0.73	6.27
69:	0.87	0.79	0.56	0.67	0.64	0.54	0.54	0.42	0.45	0.43	5.91
70:	0.49	0.40	0.41	0.40	0.46	0.50	0.46	0.47	0.45	0.43	4.48
71:	0.45	0.45	0.51	0.60	0.58	0.59	0.76	0.64	0.69	0.66	5.93
72:	0.83	0.79	0.73	0.26	0.49	0.40	0.40	0.41	0.38	0.29	4.97
73:	0.33	0.34	0.28	0.31	0.35	0.39	0.41	0.42	0.29	0.30	3.42
74:	0.28	0.36	0.31	0.34	0.35	0.18	0.18	0.23	0.20	0.18	2.61
75:	0.15	0.17	0.18	0.09	0.09	0.07	0.08	0.07	0.06	0.08	1.05
76:	0.06	0.04	0.04	0.03	0.03	0.03	0.04	0.03	0.05	0.02	0.38
77:	0.02	0.04	0.03	0.04	0.03	0.01	0.00	0.00	0.01	0.00	0.19
78:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
79:	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03
80:	0.00	0.00	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.06

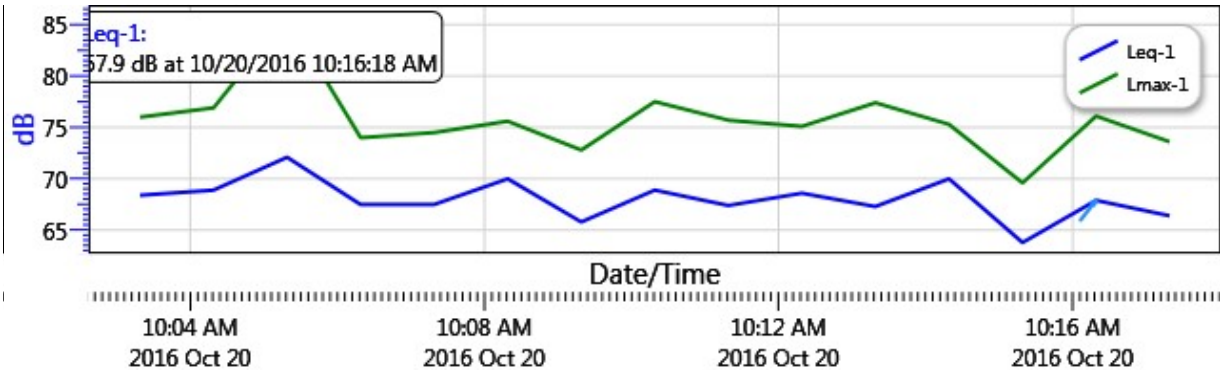
81:	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
82:	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.03
83:	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
84:	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.04
85:	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.05

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		75.7	74.8	74.3	74.0	73.7	73.4	73.1	72.8	72.6
10%:	72.3	72.1	72.0	71.8	71.7	71.5	71.4	71.2	71.0	70.8
20%:	70.6	70.4	70.2	69.9	69.7	69.5	69.3	69.2	69.0	68.9
30%:	68.7	68.6	68.4	68.2	68.1	67.9	67.8	67.6	67.5	67.3
40%:	67.1	66.9	66.7	66.5	66.3	66.1	65.9	65.7	65.5	65.3
50%:	65.2	64.9	64.7	64.5	64.2	64.0	63.7	63.4	63.2	62.9
60%:	62.6	62.3	62.1	61.8	61.5	61.1	60.8	60.5	60.2	59.9
70%:	59.6	59.3	58.9	58.6	58.2	57.8	57.4	57.0	56.6	56.3
80%:	55.9	55.5	55.2	54.8	54.3	53.7	53.2	52.8	52.3	51.8
90%:	51.3	50.7	50.0	49.6	49.3	48.8	48.2	47.8	47.5	47.0
100%:	46.0									

Logged Data Chart

S053_BLH080004_25102016_110321: Logged Data Chart



Session Report

10/25/2016

Information Panel

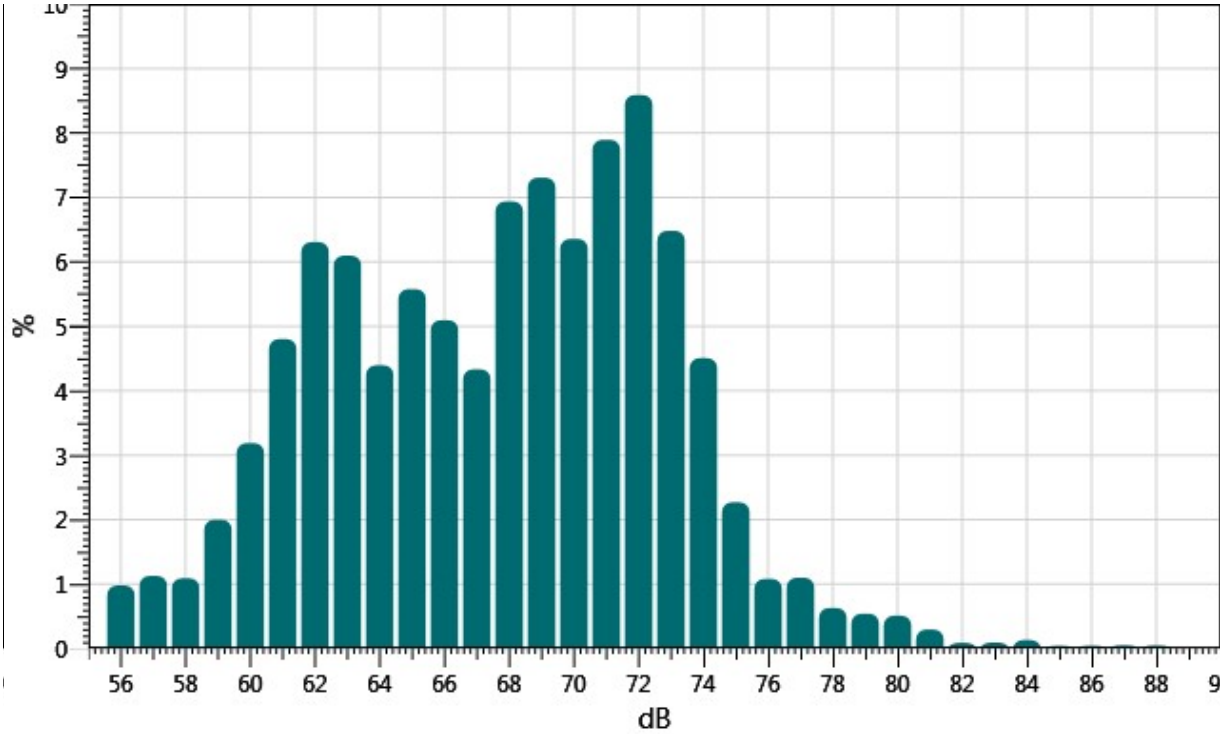
Name	S054_BLH080004_25102016_110322
Start Time	10/20/2016 10:23:38 AM
Stop Time	10/20/2016 10:38:38 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	71.3 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

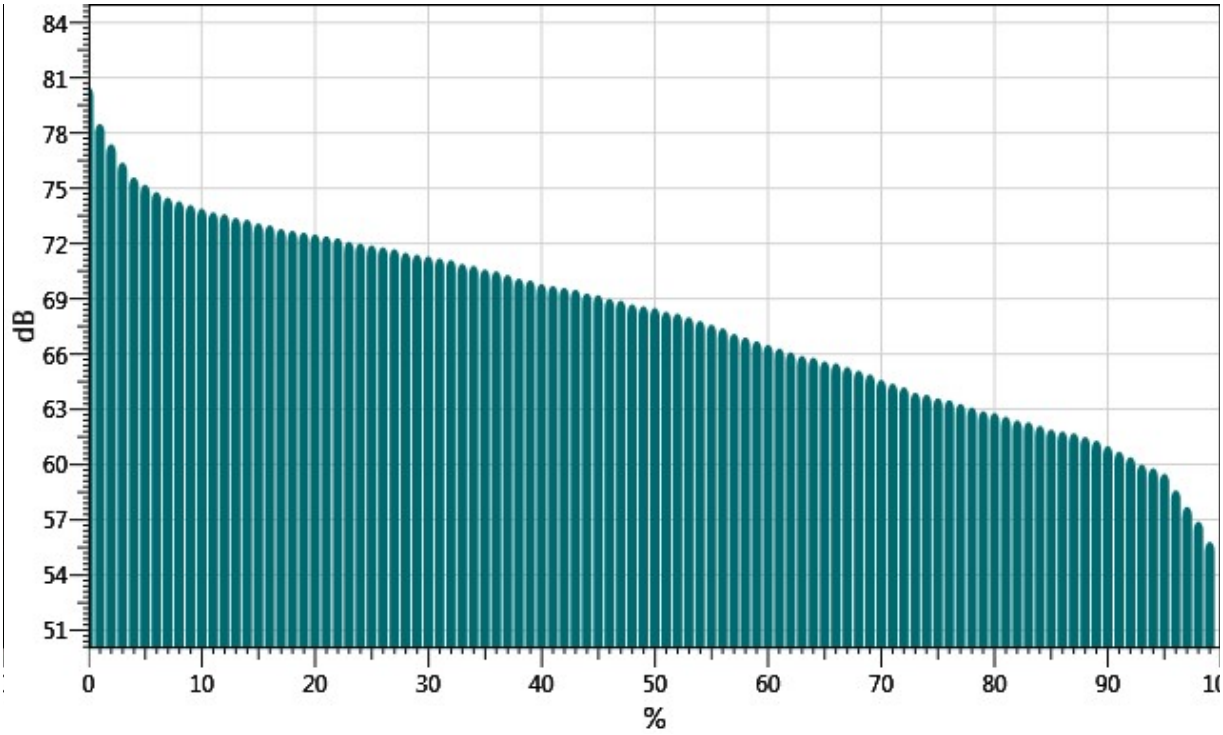
Statistics Chart

S054_BLH080004_25102016_110322: Statistics Chart



Exceedance Chart

S054_BLH080004_25102016_110322: Exceedance Chart



Statistics Table

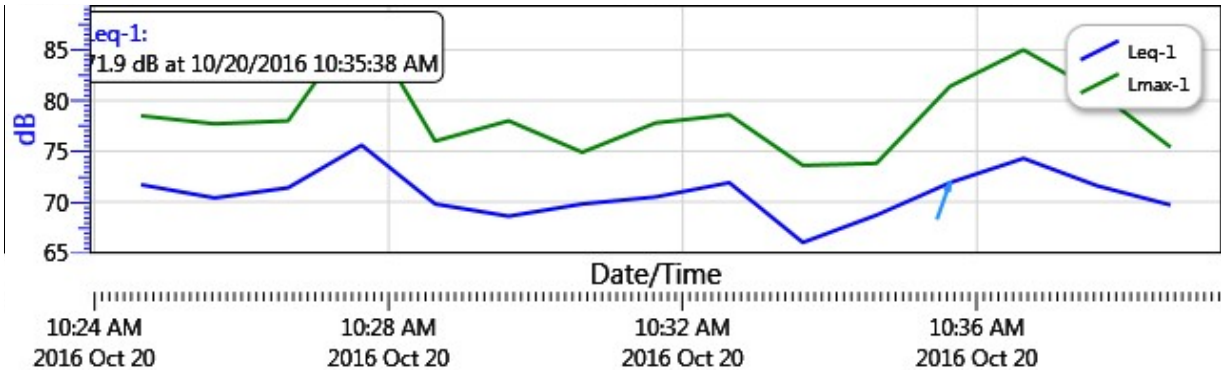
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
55:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
56:	0.03	0.06	0.08	0.15	0.09	0.06	0.08	0.11	0.16	0.15	0.98
57:	0.14	0.13	0.05	0.11	0.09	0.09	0.12	0.19	0.13	0.09	1.13
58:	0.16	0.10	0.12	0.14	0.12	0.10	0.10	0.09	0.09	0.08	1.09
59:	0.09	0.09	0.08	0.07	0.06	0.15	0.36	0.34	0.38	0.39	2.00
60:	0.45	0.44	0.22	0.23	0.35	0.32	0.27	0.27	0.32	0.31	3.19
61:	0.33	0.35	0.40	0.45	0.45	0.50	0.47	0.57	0.60	0.69	4.80
62:	0.86	0.81	0.62	0.49	0.64	0.57	0.66	0.56	0.57	0.53	6.31
63:	0.56	0.71	0.47	0.47	0.51	0.69	0.58	0.64	0.75	0.71	6.10
64:	0.56	0.44	0.40	0.41	0.38	0.40	0.39	0.44	0.41	0.57	4.40
65:	0.47	0.39	0.48	0.54	0.53	0.49	0.57	0.64	0.66	0.82	5.58
66:	0.60	0.52	0.42	0.48	0.52	0.50	0.54	0.50	0.46	0.56	5.10
67:	0.50	0.44	0.42	0.41	0.33	0.41	0.40	0.49	0.45	0.49	4.33
68:	0.60	0.62	0.62	0.55	0.67	0.78	0.77	0.90	0.71	0.72	6.94
69:	0.65	0.69	0.49	0.64	0.65	0.71	0.95	0.99	0.90	0.63	7.31
70:	0.65	0.60	0.64	0.67	0.54	0.55	0.64	0.62	0.65	0.79	6.36
71:	0.67	0.63	0.83	0.86	0.94	0.73	0.80	0.80	0.70	0.94	7.89
72:	0.88	1.03	0.77	0.55	0.84	0.86	0.92	0.97	1.04	0.73	8.59
73:	0.73	0.67	0.64	0.63	0.81	0.64	0.65	0.70	0.55	0.46	6.48
74:	0.48	0.57	0.50	0.59	0.55	0.47	0.40	0.30	0.28	0.37	4.51
75:	0.32	0.27	0.31	0.17	0.32	0.27	0.21	0.14	0.14	0.12	2.27
76:	0.14	0.11	0.10	0.10	0.12	0.10	0.13	0.11	0.10	0.08	1.08
77:	0.08	0.14	0.12	0.09	0.08	0.09	0.09	0.12	0.15	0.14	1.10
78:	0.09	0.10	0.07	0.05	0.07	0.08	0.06	0.03	0.04	0.03	0.63
79:	0.04	0.03	0.03	0.04	0.07	0.06	0.04	0.06	0.10	0.06	0.54
80:	0.05	0.05	0.05	0.06	0.04	0.05	0.07	0.05	0.05	0.05	0.51
81:	0.03	0.04	0.05	0.05	0.03	0.01	0.02	0.02	0.02	0.02	0.30
82:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09
83:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.09
84:	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.13
85:	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.04
86:	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.05
87:	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.05
88:	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.05

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		80.5	78.5	77.4	76.4	75.6	75.2	74.8	74.5	74.3
10%:	74.1	73.9	73.7	73.6	73.4	73.3	73.1	73.0	72.8	72.7
20%:	72.6	72.5	72.4	72.3	72.1	72.0	71.9	71.8	71.7	71.5
30%:	71.4	71.3	71.2	71.1	70.9	70.8	70.6	70.5	70.3	70.1
40%:	70.0	69.8	69.7	69.6	69.5	69.3	69.2	69.0	68.9	68.7
50%:	68.6	68.5	68.3	68.2	68.0	67.8	67.6	67.4	67.1	66.9
60%:	66.7	66.5	66.3	66.1	65.9	65.8	65.6	65.5	65.3	65.1
70%:	64.9	64.6	64.4	64.2	63.9	63.8	63.6	63.5	63.3	63.1
80%:	62.9	62.8	62.6	62.4	62.3	62.1	61.9	61.8	61.7	61.5
90%:	61.3	61.0	60.7	60.4	60.0	59.8	59.5	58.6	57.7	56.9
100%:	55.8									

Logged Data Chart

S054_BLH080004_25102016_110322: Logged Data Chart



Session Report

10/25/2016

Information Panel

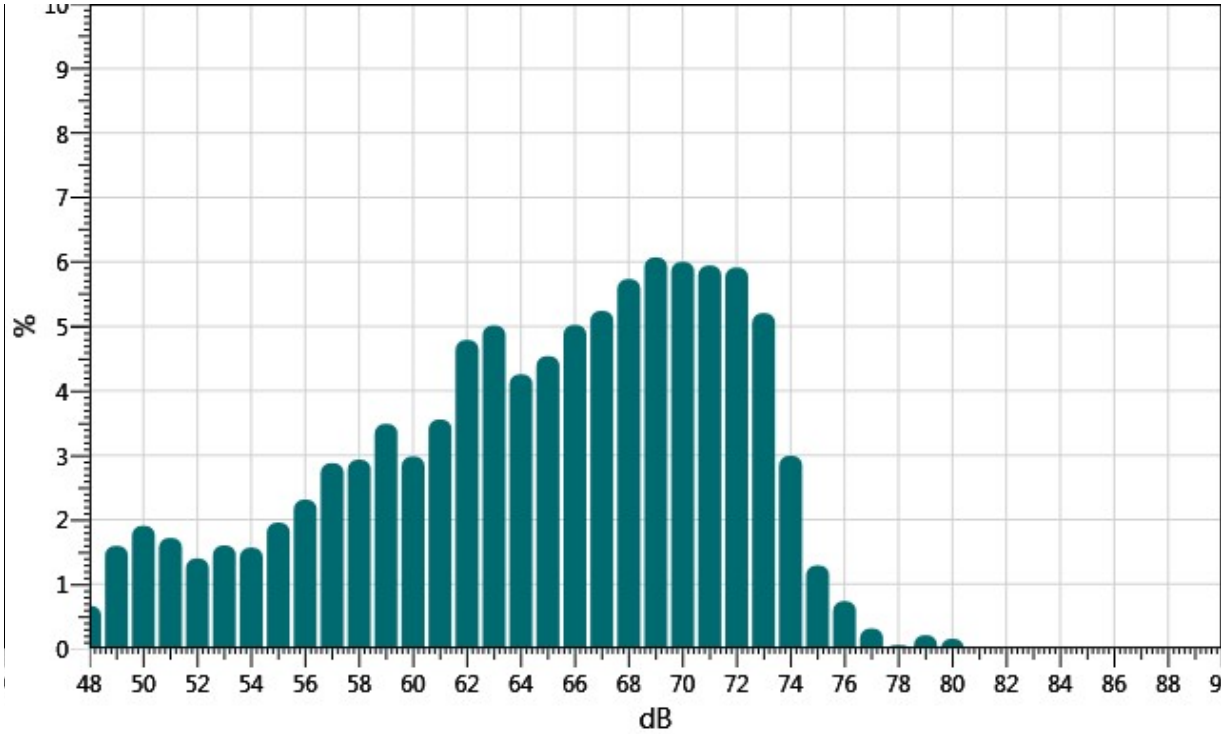
Name	S055_BLH080004_25102016_110323
Start Time	10/20/2016 10:43:54 AM
Stop Time	10/20/2016 10:58:54 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

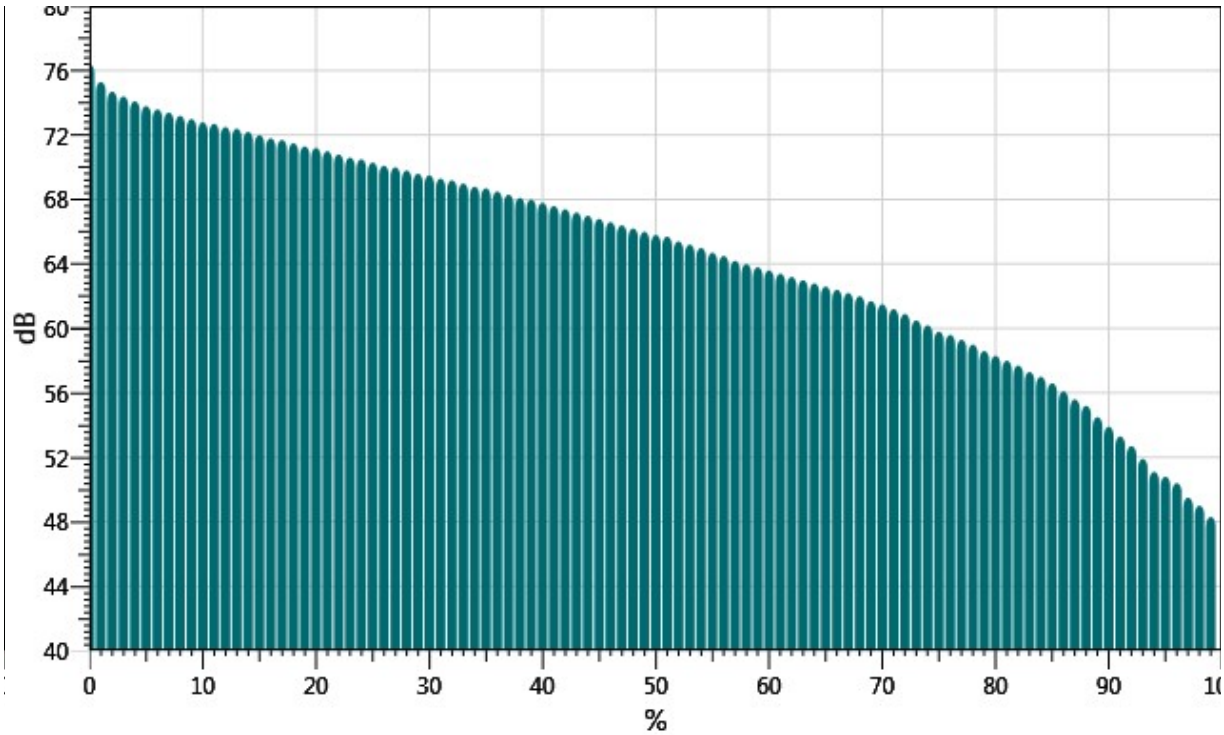
Statistics Chart

S055_BLH080004_25102016_110323: Statistics Chart



Exceedance Chart

S055_BLH080004_25102016_110323: Exceedance Chart



Statistics Table

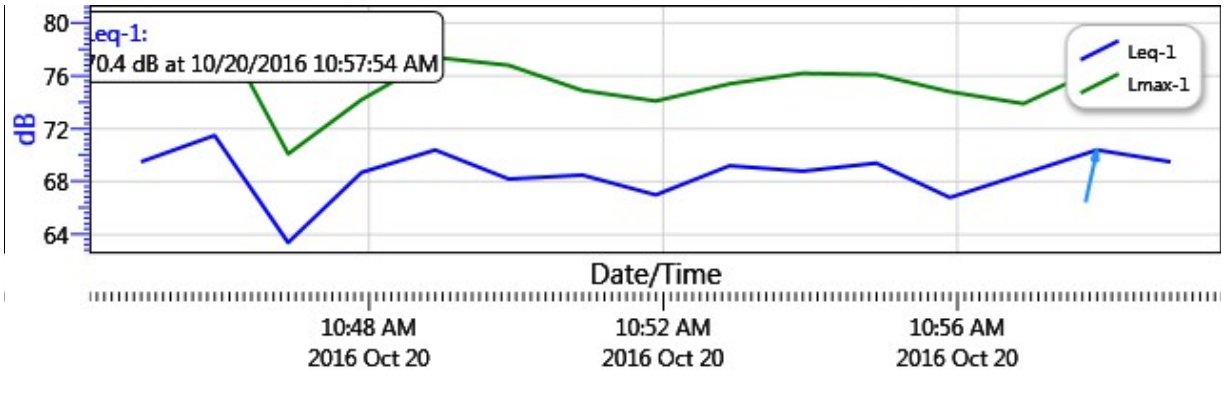
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
48:	0.00	0.00	0.00	0.00	0.02	0.11	0.17	0.15	0.15	0.07	0.66
49:	0.29	0.31	0.21	0.14	0.13	0.13	0.19	0.07	0.04	0.07	1.59
50:	0.06	0.08	0.08	0.20	0.21	0.17	0.26	0.27	0.22	0.36	1.90
51:	0.36	0.37	0.18	0.18	0.11	0.08	0.11	0.08	0.10	0.16	1.72
52:	0.14	0.09	0.11	0.10	0.10	0.19	0.22	0.15	0.14	0.16	1.40
53:	0.19	0.20	0.18	0.14	0.16	0.14	0.13	0.18	0.15	0.13	1.60
54:	0.14	0.15	0.13	0.22	0.26	0.18	0.16	0.12	0.11	0.09	1.57
55:	0.14	0.11	0.15	0.21	0.29	0.23	0.20	0.22	0.21	0.18	1.95
56:	0.24	0.23	0.22	0.21	0.20	0.21	0.19	0.22	0.32	0.28	2.31
57:	0.29	0.32	0.19	0.23	0.30	0.24	0.29	0.32	0.34	0.36	2.88
58:	0.41	0.33	0.30	0.28	0.29	0.30	0.31	0.24	0.24	0.24	2.93
59:	0.24	0.32	0.32	0.27	0.34	0.36	0.36	0.45	0.44	0.39	3.49
60:	0.33	0.38	0.23	0.34	0.30	0.28	0.30	0.28	0.30	0.24	2.98
61:	0.31	0.34	0.31	0.38	0.33	0.31	0.33	0.44	0.39	0.41	3.55
62:	0.32	0.35	0.47	0.46	0.44	0.49	0.47	0.56	0.60	0.63	4.79
63:	0.56	0.51	0.40	0.56	0.54	0.52	0.57	0.44	0.46	0.44	5.01
64:	0.44	0.47	0.41	0.39	0.44	0.48	0.41	0.42	0.41	0.40	4.26
65:	0.40	0.41	0.39	0.40	0.43	0.44	0.50	0.44	0.57	0.57	4.54
66:	0.63	0.58	0.41	0.44	0.45	0.49	0.49	0.53	0.45	0.55	5.02
67:	0.49	0.58	0.60	0.55	0.47	0.53	0.56	0.51	0.46	0.49	5.24
68:	0.57	0.52	0.55	0.52	0.53	0.59	0.57	0.62	0.59	0.67	5.73
69:	0.70	0.67	0.46	0.55	0.61	0.61	0.65	0.63	0.61	0.57	6.07
70:	0.64	0.64	0.57	0.61	0.59	0.62	0.57	0.66	0.55	0.56	6.00
71:	0.57	0.53	0.57	0.60	0.57	0.60	0.68	0.67	0.61	0.54	5.94
72:	0.52	0.63	0.50	0.34	0.53	0.66	0.68	0.74	0.67	0.64	5.91
73:	0.70	0.58	0.56	0.48	0.57	0.55	0.43	0.47	0.43	0.43	5.20
74:	0.33	0.31	0.30	0.30	0.26	0.26	0.39	0.33	0.29	0.22	2.99
75:	0.21	0.24	0.16	0.09	0.10	0.08	0.10	0.11	0.10	0.10	1.29
76:	0.09	0.06	0.06	0.06	0.10	0.09	0.09	0.08	0.05	0.04	0.73
77:	0.05	0.07	0.09	0.05	0.02	0.01	0.00	0.01	0.01	0.01	0.31
78:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.05
79:	0.01	0.01	0.01	0.01	0.03	0.03	0.03	0.02	0.04	0.04	0.21
80:	0.04	0.03	0.03	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.15

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		76.4	75.3	74.7	74.4	74.1	73.8	73.6	73.4	73.2
10%:	73.0	72.8	72.7	72.5	72.4	72.2	72.0	71.8	71.7	71.5
20%:	71.3	71.2	71.0	70.8	70.6	70.5	70.3	70.1	70.0	69.8
30%:	69.6	69.5	69.3	69.2	69.0	68.8	68.7	68.5	68.3	68.1
40%:	68.0	67.8	67.6	67.4	67.2	67.0	66.8	66.6	66.4	66.2
50%:	66.0	65.8	65.7	65.4	65.2	65.0	64.7	64.5	64.2	64.0
60%:	63.8	63.6	63.4	63.2	63.0	62.8	62.6	62.4	62.2	62.0
70%:	61.7	61.5	61.2	60.9	60.5	60.2	59.8	59.6	59.3	59.0
80%:	58.6	58.3	58.0	57.7	57.3	57.0	56.6	56.1	55.6	55.2
90%:	54.5	53.9	53.3	52.7	51.9	51.1	50.8	50.4	49.5	49.0
100%:	48.3									

Logged Data Chart

S055_BLH080004_25102016_110323: Logged Data Chart



Session Report

10/25/2016

Information Panel

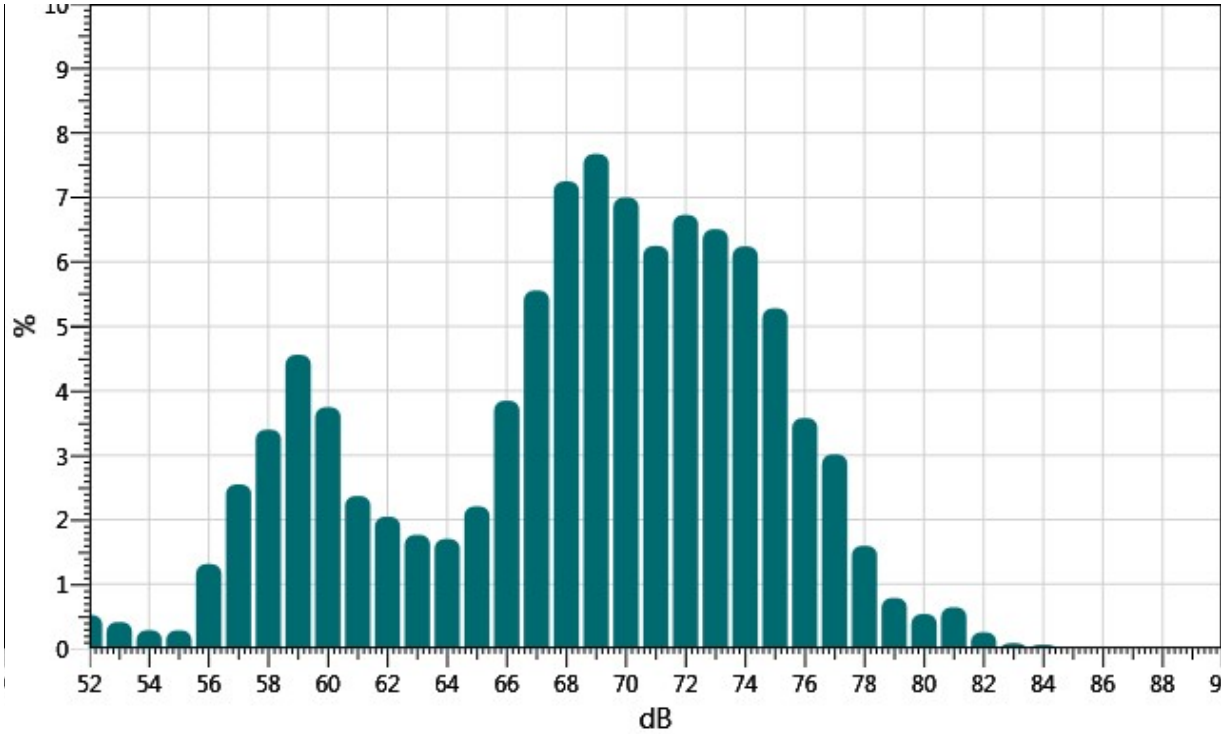
Name	S056_BLH080004_25102016_110324
Start Time	10/20/2016 11:03:31 AM
Stop Time	10/20/2016 11:18:31 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	72.3 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

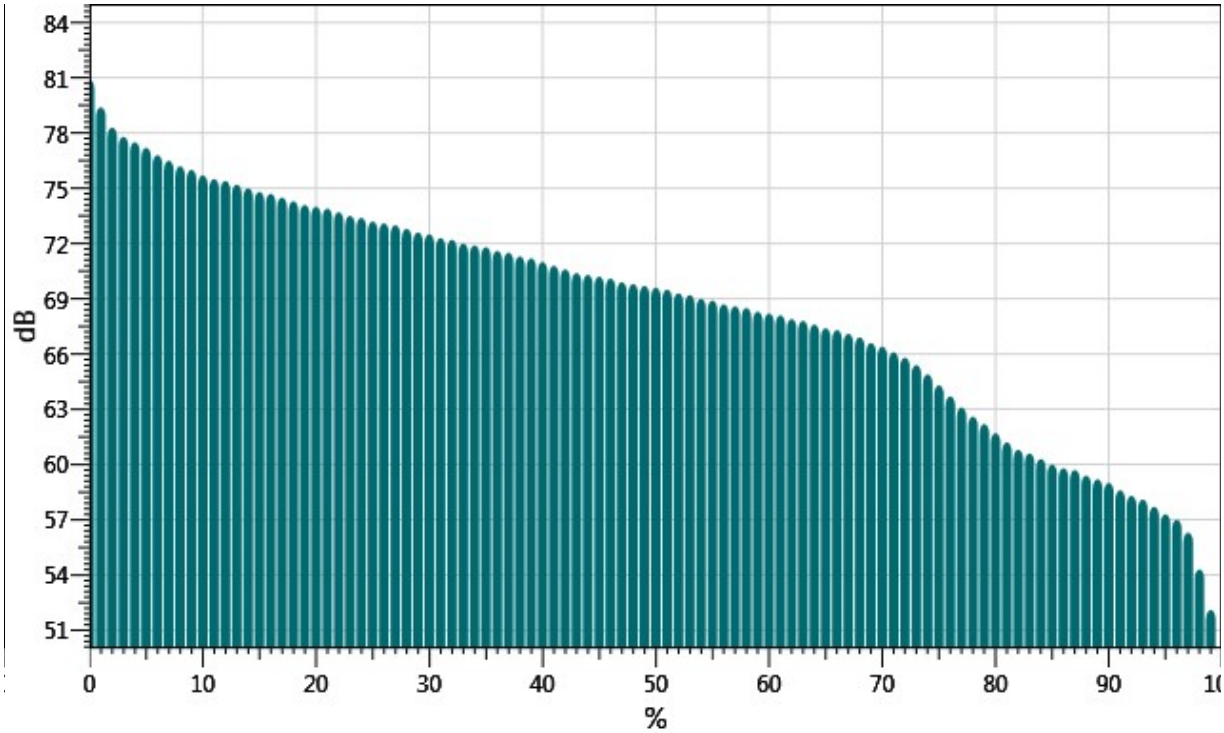
Statistics Chart

S056_BLH080004_25102016_110324: Statistics Chart



Exceedance Chart

S056_BLH080004_25102016_110324: Exceedance Chart



Statistics Table

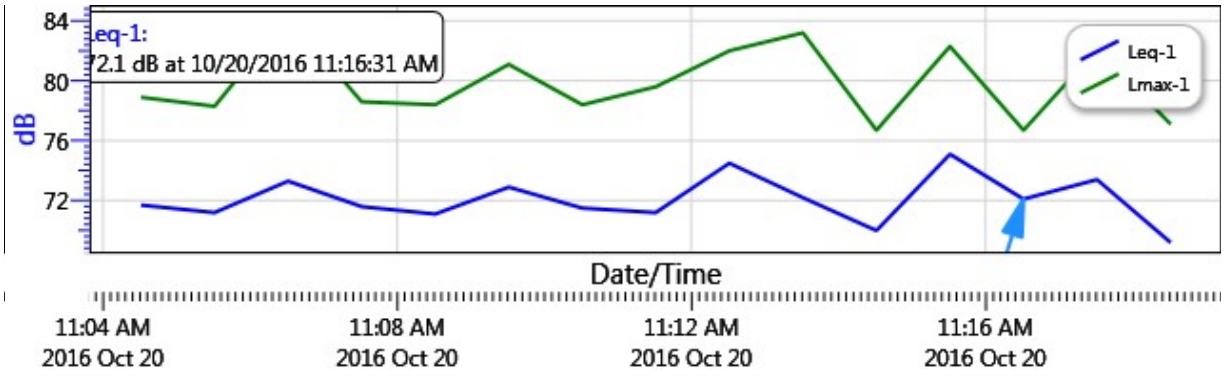
dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
52:	0.00	0.00	0.07	0.03	0.03	0.19	0.08	0.06	0.02	0.04	0.52
53:	0.13	0.08	0.05	0.02	0.02	0.02	0.02	0.04	0.01	0.03	0.41
54:	0.02	0.02	0.01	0.02	0.02	0.05	0.07	0.02	0.03	0.02	0.28
55:	0.02	0.02	0.01	0.03	0.02	0.03	0.06	0.02	0.04	0.03	0.28
56:	0.06	0.12	0.16	0.15	0.15	0.09	0.12	0.18	0.14	0.15	1.31
57:	0.16	0.24	0.22	0.35	0.34	0.26	0.25	0.27	0.26	0.21	2.55
58:	0.23	0.35	0.44	0.40	0.39	0.33	0.36	0.34	0.30	0.26	3.40
59:	0.24	0.31	0.48	0.53	0.35	0.41	0.39	0.54	0.71	0.60	4.56
60:	0.47	0.32	0.19	0.42	0.43	0.39	0.35	0.48	0.42	0.28	3.74
61:	0.26	0.25	0.26	0.22	0.23	0.25	0.20	0.21	0.27	0.22	2.37
62:	0.16	0.19	0.23	0.24	0.22	0.18	0.18	0.22	0.19	0.24	2.05
63:	0.22	0.22	0.18	0.19	0.17	0.17	0.17	0.15	0.14	0.15	1.76
64:	0.15	0.15	0.14	0.16	0.22	0.18	0.14	0.18	0.19	0.18	1.70
65:	0.20	0.16	0.16	0.19	0.21	0.23	0.21	0.23	0.30	0.32	2.21
66:	0.33	0.36	0.26	0.34	0.44	0.44	0.39	0.41	0.43	0.45	3.85
67:	0.49	0.46	0.48	0.54	0.63	0.66	0.53	0.51	0.56	0.70	5.56
68:	0.68	0.70	0.57	0.83	0.73	0.73	0.68	0.72	0.91	0.72	7.25
69:	0.68	0.75	0.57	0.55	0.69	0.93	0.96	0.88	0.93	0.74	7.67
70:	0.64	0.75	0.84	0.86	0.78	0.69	0.76	0.59	0.59	0.51	7.00
71:	0.48	0.51	0.49	0.55	0.75	0.73	0.76	0.59	0.59	0.79	6.25
72:	0.74	0.77	0.73	0.41	0.74	0.66	0.62	0.63	0.74	0.69	6.73
73:	0.57	0.67	0.57	0.77	0.69	0.69	0.65	0.58	0.69	0.62	6.51
74:	0.77	0.75	0.71	0.50	0.56	0.64	0.61	0.48	0.63	0.59	6.24
75:	0.54	0.43	0.65	0.39	0.61	0.62	0.63	0.55	0.50	0.36	5.28
76:	0.43	0.45	0.38	0.29	0.33	0.41	0.34	0.28	0.39	0.29	3.58
77:	0.33	0.29	0.32	0.26	0.28	0.36	0.33	0.32	0.28	0.24	3.01
78:	0.23	0.24	0.24	0.15	0.14	0.20	0.10	0.13	0.09	0.08	1.59
79:	0.07	0.07	0.06	0.07	0.09	0.09	0.10	0.09	0.09	0.07	0.78
80:	0.08	0.06	0.05	0.06	0.04	0.06	0.05	0.05	0.05	0.04	0.53
81:	0.07	0.07	0.06	0.04	0.05	0.04	0.05	0.07	0.09	0.11	0.64
82:	0.08	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.25
83:	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.08
84:	0.01	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		80.9	79.4	78.3	77.8	77.5	77.2	76.8	76.5	76.2
10%:	76.0	75.7	75.5	75.4	75.2	75.0	74.8	74.7	74.5	74.3
20%:	74.1	74.0	73.9	73.7	73.5	73.4	73.2	73.1	73.0	72.8
30%:	72.6	72.5	72.3	72.2	72.0	71.9	71.8	71.6	71.5	71.3
40%:	71.2	71.0	70.8	70.6	70.4	70.3	70.2	70.1	69.9	69.8
50%:	69.7	69.6	69.5	69.3	69.2	69.0	68.9	68.7	68.6	68.5
60%:	68.3	68.2	68.1	67.9	67.8	67.6	67.4	67.3	67.1	66.9
70%:	66.6	66.4	66.1	65.8	65.4	64.9	64.3	63.7	63.1	62.6
80%:	62.2	61.7	61.2	60.8	60.6	60.3	60.0	59.8	59.7	59.4
90%:	59.2	59.0	58.6	58.3	58.1	57.7	57.3	57.0	56.3	54.3
100%:	52.1									

Logged Data Chart

S056_BLH080004_25102016_110324: Logged Data Chart



Session Report

10/25/2016

Information Panel

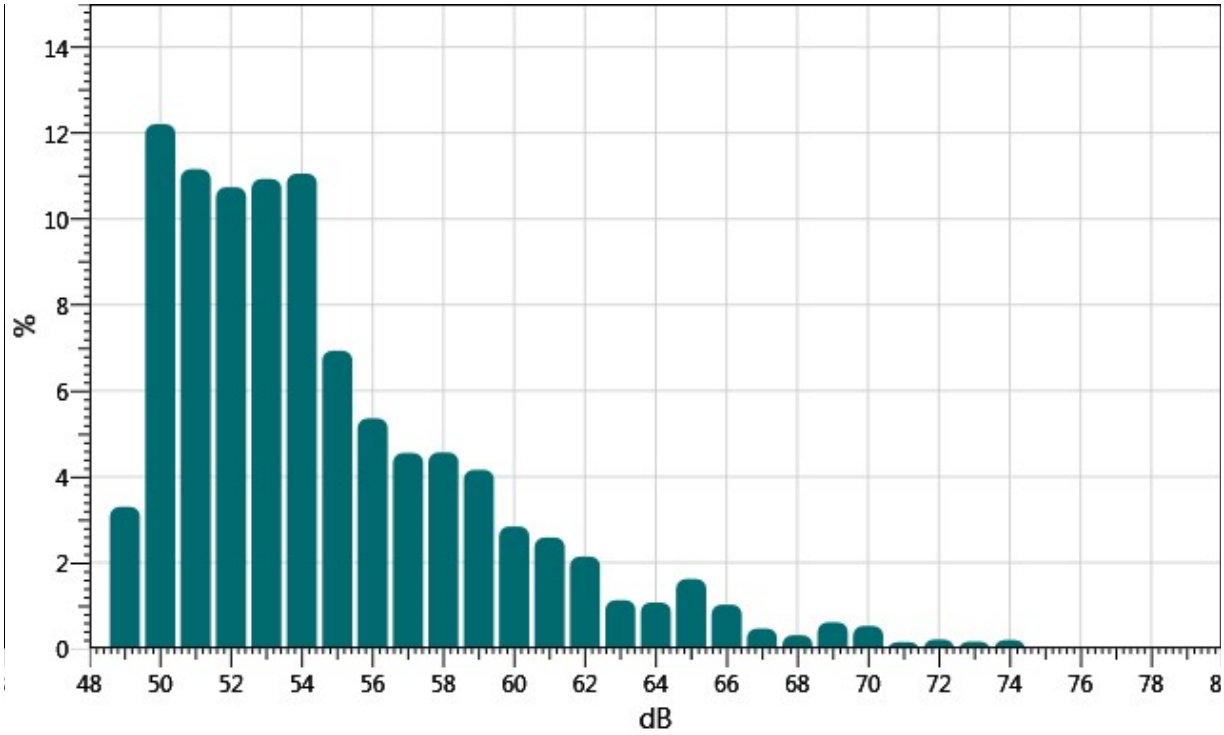
Name	S057_BLH080004_25102016_110324
Start Time	10/20/2016 11:27:36 AM
Stop Time	10/20/2016 11:42:36 AM
Device Name	BLH080004
Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	59.1 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

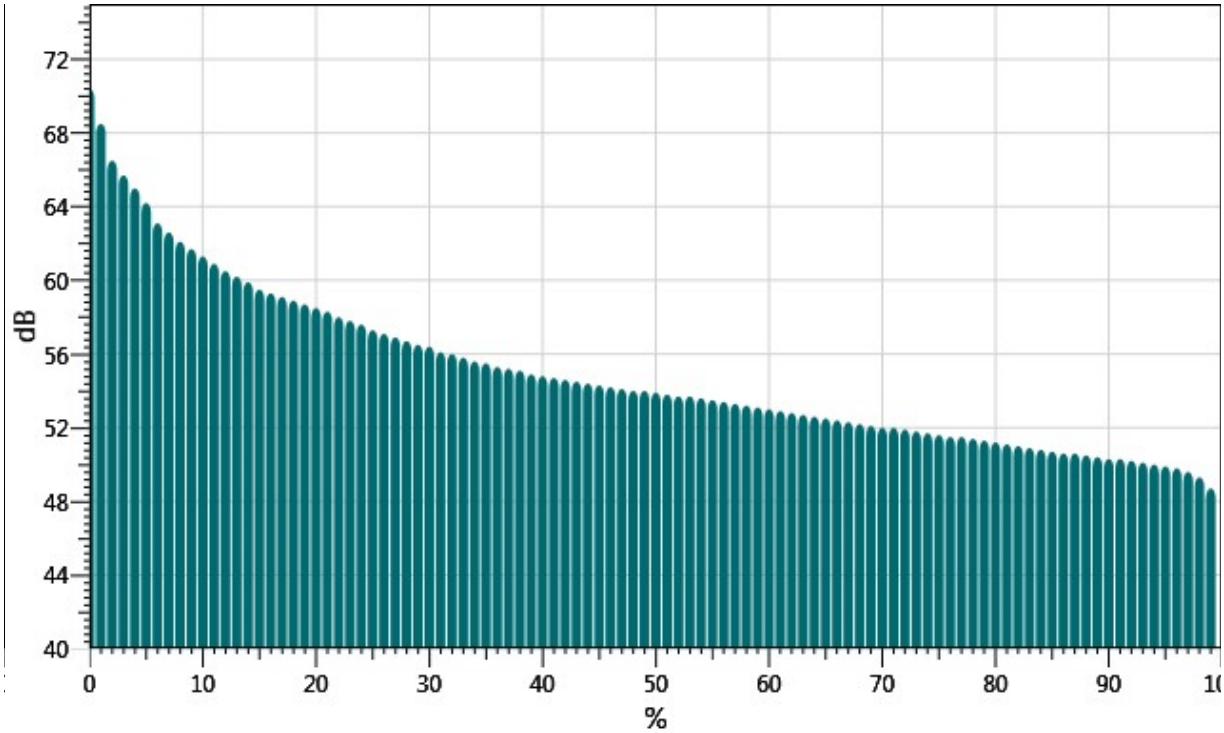
Statistics Chart

S057_BLH080004_25102016_110324: Statistics Chart



Exceedance Chart

S057_BLH080004_25102016_110324: Exceedance Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
48:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
49:	0.10	0.32	0.22	0.24	0.23	0.21	0.49	0.57	0.41	0.52	3.30
50:	0.79	1.00	1.22	1.55	1.77	1.07	1.21	1.21	1.30	1.09	12.20
51:	1.11	1.16	0.78	1.27	1.11	0.97	1.09	1.16	1.19	1.32	11.16
52:	1.22	1.18	1.32	1.24	1.06	1.04	0.94	0.85	0.92	0.96	10.74
53:	0.98	1.01	1.04	1.00	0.94	1.05	1.03	1.28	1.32	1.29	10.93
54:	1.34	1.39	0.97	1.31	1.18	1.08	1.03	0.87	0.92	0.95	11.05
55:	0.83	0.68	0.74	0.74	0.69	0.62	0.63	0.70	0.64	0.65	6.93
56:	0.57	0.56	0.56	0.51	0.43	0.55	0.57	0.51	0.53	0.57	5.36
57:	0.60	0.52	0.37	0.44	0.43	0.38	0.44	0.41	0.51	0.47	4.55
58:	0.41	0.36	0.43	0.48	0.54	0.52	0.45	0.41	0.52	0.46	4.56
59:	0.45	0.55	0.57	0.48	0.43	0.44	0.31	0.34	0.29	0.31	4.16
60:	0.35	0.35	0.22	0.28	0.33	0.28	0.21	0.26	0.32	0.23	2.84
61:	0.22	0.25	0.28	0.26	0.27	0.27	0.25	0.27	0.26	0.26	2.59
62:	0.26	0.20	0.20	0.16	0.22	0.27	0.26	0.21	0.16	0.20	2.14
63:	0.16	0.21	0.10	0.11	0.09	0.08	0.09	0.09	0.07	0.11	1.12
64:	0.10	0.08	0.08	0.10	0.10	0.09	0.08	0.11	0.14	0.19	1.07
65:	0.13	0.15	0.16	0.16	0.15	0.16	0.13	0.12	0.19	0.27	1.62
66:	0.09	0.11	0.08	0.13	0.11	0.07	0.08	0.10	0.10	0.15	1.02
67:	0.09	0.05	0.07	0.08	0.07	0.03	0.02	0.02	0.02	0.02	0.47
68:	0.03	0.02	0.03	0.02	0.02	0.03	0.03	0.04	0.05	0.04	0.31
69:	0.04	0.05	0.04	0.06	0.05	0.14	0.06	0.07	0.05	0.05	0.61
70:	0.03	0.05	0.05	0.03	0.04	0.14	0.11	0.06	0.01	0.01	0.52
71:	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.02	0.15
72:	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.05	0.03	0.03	0.21
73:	0.03	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.16
74:	0.01	0.01	0.03	0.07	0.08	0.00	0.00	0.00	0.00	0.00	0.20

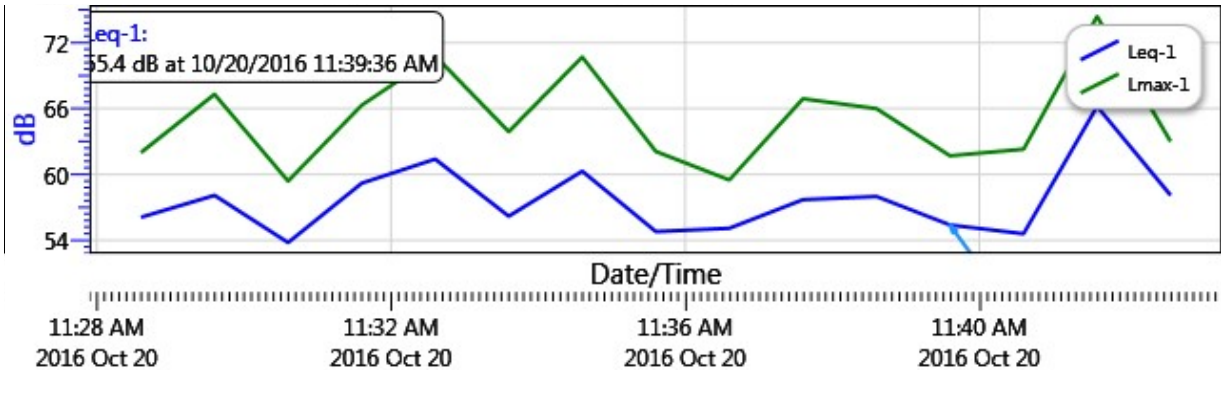
Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		70.4	68.5	66.5	65.7	65.0	64.2	63.1	62.6	62.1
10%:	61.7	61.3	60.9	60.5	60.2	59.9	59.5	59.3	59.1	58.9
20%:	58.7	58.5	58.3	58.0	57.8	57.6	57.3	57.1	56.9	56.7
30%:	56.5	56.4	56.1	56.0	55.8	55.6	55.5	55.3	55.2	55.1

40%:	54.9	54.8	54.7	54.6	54.5	54.4	54.3	54.2	54.1	54.0
50%:	54.0	53.9	53.8	53.7	53.7	53.6	53.5	53.4	53.3	53.2
60%:	53.1	53.0	52.9	52.8	52.7	52.6	52.5	52.4	52.3	52.2
70%:	52.1	52.0	52.0	51.9	51.8	51.7	51.6	51.5	51.5	51.4
80%:	51.3	51.2	51.1	51.0	50.9	50.8	50.7	50.6	50.6	50.5
90%:	50.4	50.3	50.3	50.2	50.1	50.0	49.9	49.8	49.6	49.3
100%:	48.7									

Logged Data Chart

S057_BLH080004_25102016_110324: Logged Data Chart



Session Report

10/25/2016

Information Panel

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Start Time	10/20/2016 11:46:32 AM
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Model Type	SoundPro DL
Device Firmware Rev	R.13H
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
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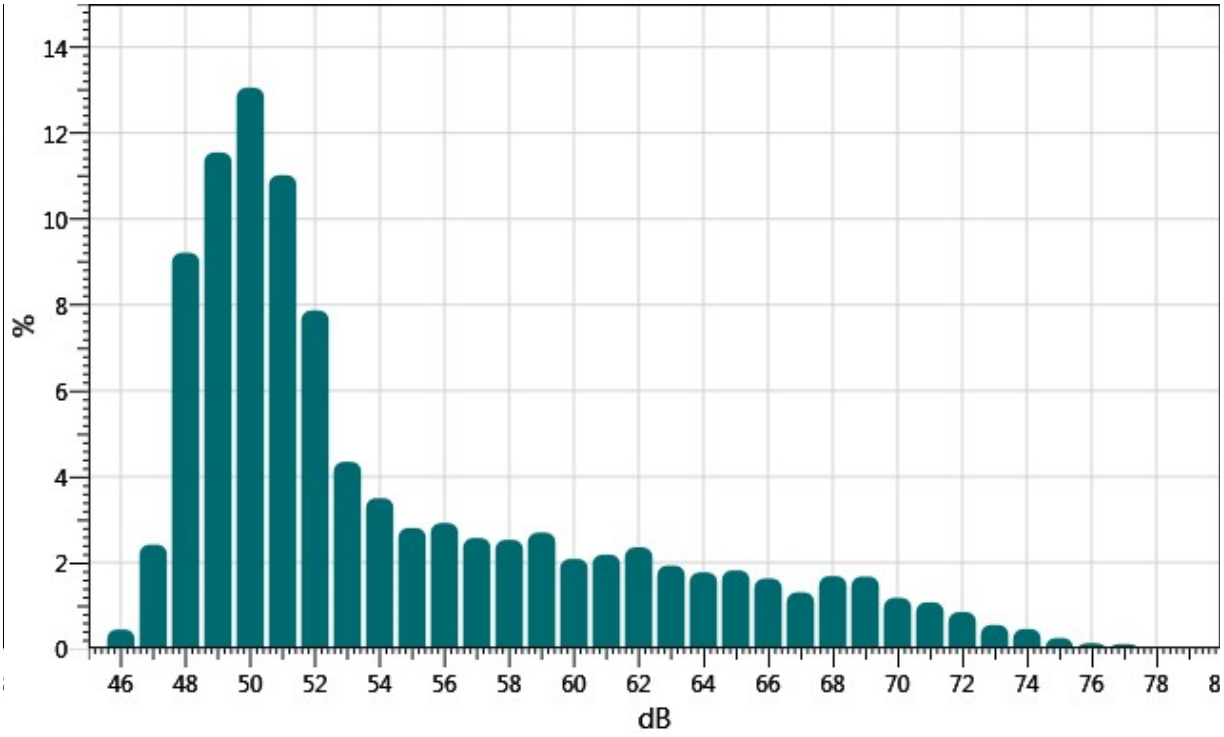
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF
Exchange Rate	2	3 dB	Weighting	2	A
Response	2	FAST			

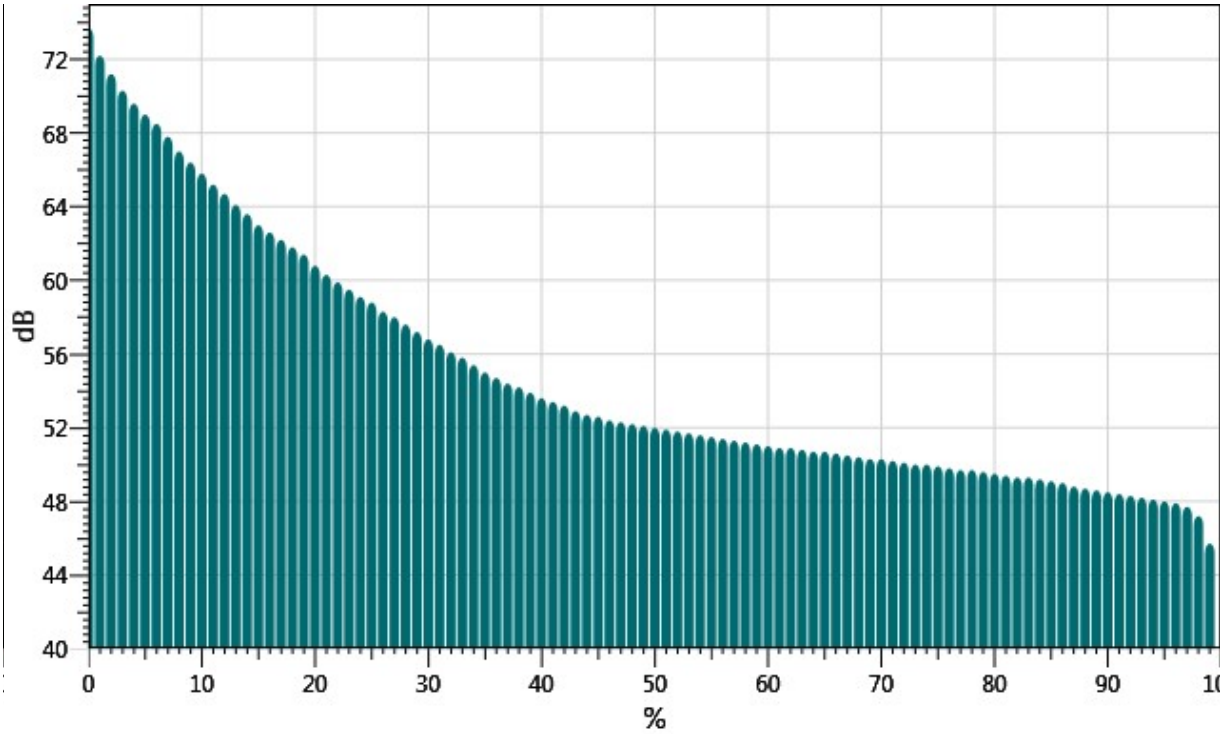
Statistics Chart

S058_BLH080004_25102016_110325: Statistics Chart



Exceedance Chart

S058_BLH080004_25102016_110325: Exceedance Chart



Statistics Table

dB:	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
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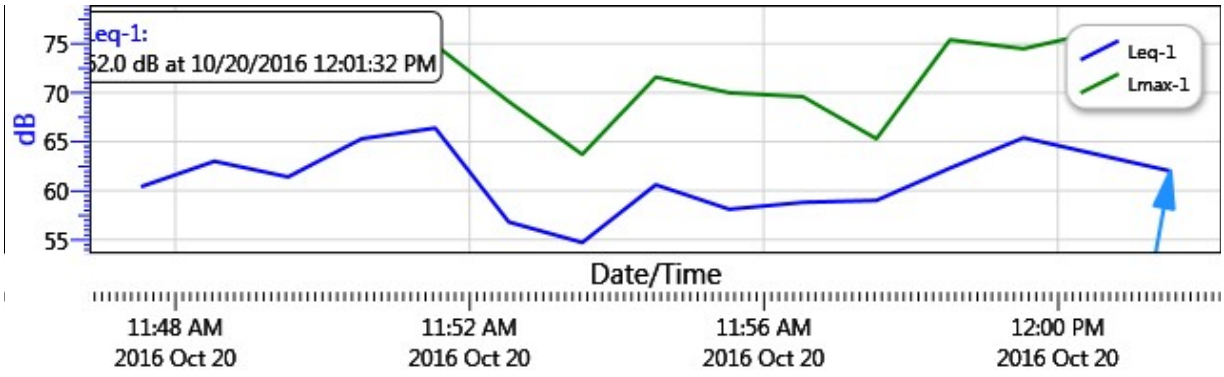
46:	0.02	0.03	0.04	0.02	0.01	0.02	0.08	0.06	0.06	0.12	0.44
47:	0.18	0.12	0.09	0.18	0.14	0.16	0.26	0.32	0.41	0.56	2.42
48:	0.74	0.94	0.63	0.92	1.05	0.95	0.98	1.06	1.07	0.88	9.21
49:	0.88	0.88	0.96	1.10	1.14	1.26	1.34	1.19	1.38	1.43	11.55
50:	1.26	1.15	1.35	1.19	1.43	1.36	1.29	1.28	1.30	1.44	13.05
51:	1.38	1.50	0.91	1.27	1.04	1.10	1.03	0.91	0.99	0.87	11.02
52:	0.87	0.88	1.15	0.98	0.86	0.70	0.69	0.69	0.58	0.47	7.87
53:	0.47	0.39	0.46	0.46	0.38	0.45	0.50	0.46	0.39	0.39	4.35
54:	0.40	0.41	0.25	0.38	0.39	0.31	0.32	0.35	0.34	0.35	3.50
55:	0.32	0.27	0.26	0.26	0.28	0.27	0.30	0.30	0.25	0.30	2.81
56:	0.36	0.32	0.27	0.26	0.30	0.25	0.26	0.28	0.32	0.30	2.92
57:	0.28	0.32	0.20	0.27	0.29	0.24	0.21	0.26	0.23	0.26	2.57
58:	0.26	0.25	0.26	0.26	0.25	0.22	0.23	0.19	0.26	0.35	2.53
59:	0.26	0.29	0.33	0.33	0.27	0.26	0.25	0.22	0.23	0.26	2.70
60:	0.31	0.25	0.14	0.20	0.20	0.19	0.18	0.22	0.21	0.20	2.09
61:	0.18	0.18	0.18	0.17	0.18	0.24	0.25	0.30	0.24	0.26	2.19
62:	0.28	0.24	0.23	0.23	0.21	0.22	0.21	0.26	0.24	0.24	2.35
63:	0.22	0.24	0.16	0.19	0.19	0.20	0.19	0.22	0.18	0.15	1.93
64:	0.15	0.15	0.20	0.18	0.18	0.18	0.19	0.19	0.17	0.20	1.77
65:	0.22	0.21	0.19	0.24	0.17	0.15	0.16	0.16	0.16	0.16	1.82
66:	0.18	0.18	0.13	0.18	0.16	0.15	0.15	0.20	0.15	0.15	1.63
67:	0.15	0.15	0.11	0.13	0.15	0.13	0.12	0.13	0.12	0.13	1.31
68:	0.13	0.14	0.13	0.19	0.18	0.13	0.15	0.23	0.19	0.21	1.69
69:	0.18	0.16	0.14	0.16	0.16	0.17	0.22	0.17	0.14	0.16	1.68
70:	0.14	0.11	0.11	0.13	0.13	0.13	0.12	0.11	0.09	0.12	1.18
71:	0.12	0.13	0.12	0.09	0.10	0.11	0.10	0.10	0.10	0.12	1.08
72:	0.12	0.09	0.09	0.05	0.09	0.09	0.08	0.09	0.08	0.07	0.85
73:	0.10	0.05	0.05	0.06	0.05	0.05	0.04	0.04	0.06	0.05	0.55
74:	0.05	0.05	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.46
75:	0.03	0.02	0.02	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.24
76:	0.02	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.13
77:	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.03	0.00	0.11

Exceedance Table

.	0%	1%	2%	3%	4%	5%	6%	%7	%8	%9
0%:		73.7	72.2	71.2	70.3	69.6	69.0	68.5	67.8	67.0
10%:	66.4	65.8	65.2	64.7	64.1	63.6	63.0	62.6	62.2	61.8
20%:	61.4	60.8	60.3	59.9	59.5	59.1	58.8	58.3	58.0	57.6
30%:	57.2	56.8	56.5	56.1	55.8	55.4	55.0	54.7	54.4	54.2
40%:	53.9	53.6	53.4	53.2	52.9	52.7	52.6	52.4	52.3	52.2
50%:	52.1	52.0	51.9	51.8	51.7	51.6	51.5	51.4	51.3	51.2
60%:	51.1	51.0	50.9	50.9	50.8	50.7	50.7	50.6	50.5	50.4
70%:	50.3	50.3	50.2	50.1	50.0	50.0	49.9	49.8	49.7	49.7
80%:	49.6	49.5	49.4	49.3	49.3	49.2	49.1	49.0	48.8	48.7
90%:	48.6	48.5	48.4	48.3	48.2	48.1	48.0	47.9	47.7	47.2
100%:	45.7									

Logged Data Chart

S058_BLH080004_25102016_110325: Logged Data Chart



Appendix G

Traffic Study Technical Memorandum

TG: 16357.00

May 8, 2017

Linda Wilde, CEQA Project Manager
LAUSD Office of Environmental Health & Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

SUBJECT: LETTER OF NO IMPACT FOR U.S. GRANT HIGH SCHOOL MODERNIZATION PROJECT

Dear Ms. Wilde:

Per our May 8, 2017 *Ulysses S. Grant Senior High School Modernization Traffic Memo*, we have made the following findings:

- The peak construction phase of the proposed project would generate approximately 272 daily PCE trips, 80 AM PCE peak hour trips (74 inbound and 6 outbound), and 80 PM PCE peak hour trips (6 inbound and 74 outbound).
- All study intersections are forecast to continue to operate at LOS D or better during the AM and PM peak hours in the Opening Year plus Project (peak construction phase) condition. Furthermore, for all study intersections the project-added V/C increase is less than 0.040 V/C (at LOS C), and 0.020 V/C (at LOS D). None of the study intersections operate at LOS E or F in any analyzed condition. Therefore, there would be no significant traffic impacts at the study area intersections with the addition of project construction traffic.
- The proposed project will be required to comply with LAUSD *Standard Condition* SC-T-4.

  SC-T-4 Prior to the start of the (peak) first Construction Phase the project applicant's contractor shall have an approved construction worksite traffic control plan on file with local City or County jurisdiction for review. Because there are no State roadway facilities in the immediate vicinity of the project, Caltrans does not need to be involved. Components of the construction worksite traffic control plan shall include, but not be limited to, the following:

  - Locations of haul routes
  - Hours of operation
  - Protective devices
  - Warning signs
  - Access to abutting properties
  - LAUD shall encourage the contractor to limit construction-related trucks to arrive and leave the project site outside of the AM or PM peak commute hours.

With the implementation of SC-T-4, temporary construction-related traffic impacts to the study area intersections, and vehicular and pedestrian access points would be less than significant. Therefore, no impacts to the surrounding street, pedestrian, and bicycle networks would be created by the proposed project.

Sincerely,

Meghan Macias

Meghan Macias, TE
Transportation Planning Manager

Appendix H

Cultural Resources Report (UltraSystems)

PHASE I
CULTURAL RESOURCES SURVEY

FOR THE

ULYSSES S GRANT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Los Angeles Unified School District
Los Angeles County, California

Prepared for:

Los Angeles Unified School District, OEHS
333 S. Beaudry Avenue 21st Floor
Los Angeles, CA 90017

Prepared by:

UltraSystems Environmental Inc.
16431 Scientific Way
Irvine, CA 92618
(949) 788-4900

JULY 2017

PHASE I
CULTURAL RESOURCES SURVEY

FOR THE

ULYSSES S GRANT HIGH SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Los Angeles Unified School District
Los Angeles County, California

Los Angeles Unified School District, OEHS
333 S. Beaudry Avenue 21st Floor
Los Angeles, CA 90017

JULY 2017

Prepared by: Stephen O'Neil, M.A., RPA
UltraSystems Environmental Inc.

Date: July 31, 2017

Reviewed by: Alan P. Gold, Ph.D., RPA
UltraSystems Environmental Inc.

Date: July 31, 2017

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APPENDICES

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1.0 INTRODUCTION

1.1 Overview

This Phase I Cultural Resources Survey was completed in support of the Los Angeles Unified School District's (LAUSD or District) Ulysses S Grant High School Comprehensive Modernization Project (Project). The District plans to implement the Project at Grant High School in Los Angeles, California as part of the District's School Upgrade Program (LAUSD, 2015). The Project would include demolition of structures that are beyond repair, construction of new buildings, seismic retrofit, mechanical systems upgrades and modernization of existing buildings, and upgrades to infrastructure, including sanitary sewers, water lines, and electrical utilities. The core campus is composed of one- and two-story permanent buildings clad in brick, dating to 1958 and 1959. Clusters of one-story portable buildings dating from 1935 to 1991 are located in the northwest and southeast corners of the campus.

The Proposed project would address the deficiencies identified in the campus-wide survey through demolition of structures and systems that are beyond repair; construction of new buildings and mechanical systems; and upgrades to infrastructure, including sanitary sewers, water lines, flood control features, landscape, and electrical utilities. Facilities to be removed include the following: administration building, library building, maintenance and operations (M&O) building, arts building, two industrial arts classroom buildings, agricultural/horticultural classroom building and auxiliary structures, and approximately 27 classrooms located in portable buildings. The following structures would be built: approximately 40 general, science and specialty classrooms and support spaces, administration building, library building, M&O building, and gymnasium.

Grant High School is located on a 32.4-acre site at 13000 Oxnard Street in the City of Los Angeles, California (**Appendix A, Figure 6**). Regional access to the campus is provided by Oxnard Street, which intersects California State Route 170 (Hollywood Freeway); the campus is bordered by Lancer Lane to the east, Hatteras Street to the south, and Ethel Avenue to the west (**Appendix A, Figure 6**). The archival study area includes a 0.5-mile radius buffer surrounding the Project site's Area of Potential Effect (APE), which is situated in a fully developed urban landscape (**Appendix A, Figure 7**). The project is mapped on the *Van Nuys, Calif.*, USGS 7.5' 1966 (photorevised 1972) topographic quadrangle, Range 15 W, Township 1 N, within unsectioned lands of the Rancho Ex-Mission San Fernando within the community of Valley Glen, City of Los Angeles, Los Angeles (**Appendix A, Figure 7**).

A cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton, which is the local California Historic Resources Information System (CHRIS) Information Center. The purpose of the records search was to identify previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the Project area and a half-mile radius. The records search included a review of previously recorded prehistoric and historic archaeological sites within the proposed Project area and a 0.5-mile buffer, and a review of listed cultural resource surveys and/or excavation reports within that same geographical area.

Consultations took place between Mr. O'Neil and the Native American Heritage Commission (NAHC) and local tribal organizations. This consultation supports the requirements of the oversight agency regarding consultations with Native American tribal organizations. A cultural resources record search, Native American consultations, and an intensive pedestrian cultural resources survey were

undertaken by Stephen O'Neil, M.A., RPA, who qualifies as a Principal Prehistoric Archaeologist and Historic Archaeologist per United States Secretary of the Interior Standards (see **Appendix B**).

2.0 SETTINGS

2.1 Natural Setting

Grant High School is situated in the southeast portion of the San Fernando Valley which is situated northwest of the Los Angeles Basin. The Valley is surrounded by mountains on all sides, with the Santa Monica Mountains between the Valley and the Pacific Ocean to the west and south, the San Gabriel Mountains to the north, and the Verdugo and Cahuenga Hills to the east between the Valley and Los Angeles. The Los Angeles River courses through the southern edge of the San Fernando Valley entering through a pass from the Simi Valley to the northwest and exiting out onto the Basin between the Santa Monica Mountains and Cahuenga Hills to the southeast. Several creeks cross the Valley from the San Gabriel Mountains on the north and from canyons on the south, making this a well-watered valley. Prior to the Euro-American invasion the San Fernando Valley was a verdant grassland with patches of chaparral and dotted with oaks spilling out from large groves in the surrounding hills.

The Project site is located in the community of Valley Glenn, a part of the City of Los Angeles, which is shown on the *Van Nuys, California*, 1964 (photorevised 1981) USGS quadrangle map. Valley Glenn is bordered by the communities of Van Nuys to the northwest and west, North Hollywood to the east, Valley Village to the southeast, and Sherman Oaks to the southwest, all within in the City of Los Angeles, Los Angeles County. Grant High School is at an elevation ranging from 660 to 685 feet above sea level, sloping to the southeast and draining to Tujunga Wash. According to the City of Los Angeles' Planning Department, the community of Valley Glenn had 62,846 in 2008 and an area of approximately 4.8 square miles (12.5 square kilometers). The city is served by Interstate 405/San Diego Freeway on the west and State Highway 101 along the south. The general climate is typical of southern California with mild, rainy winters, and warm, dry summers. Winter lows can range in the mid-40s; however, the summer highs can easily reach 100 degrees, notably hotter than the adjacent Los Angeles Basin.

2.2 Cultural Setting

2.2.1 Prehistoric Context

In the history of the Americas, the term "prehistoric period" refers to the time prior to the arrival of Euro-Americans, when native lifeways and traditions remained intact and viable. In the case of Alta and Baja California, it is widely acknowledged that human occupation began about 13,000 or more years ago (all dates presented here are calibrated radiocarbon ages or calendar dates). To describe and understand the cultural processes that occurred in the ensuing years, archaeologists have developed a number of chronological frameworks to correlate technological and cultural changes observable in the archaeological record into distinct archaeological horizons, traditions, complexes, and phases. There are many such models for various regions of California (cf. Grayson 2011; Warren 1984), the Mojave Desert (Warren and Crabtree 1986), and interior San Diego (Meighan 1954; True 1958, 1970). Many archaeologists tend to follow the regional synthesis adapted from a scheme developed by William J. Wallace in 1955 and modified by others (Wallace 1978; Warren 1968; Chartkoff and Chartkoff 1984; Moratto 1984; and others). Although the beginning and ending dates vary, the general framework of prehistory in the area consists of the following four periods:

- Paleoindian Stage (ca. 11000 B.C. to 6000 B.C.), which was characterized by highly mobile foraging strategies and a broad-spectrum subsistence strategy. These earliest expressions

of aboriginal occupation in American were marked by the use of large dart or spear points that are an element of the Western Clovis expression. Following the earliest portions of the time period was a change in climate and the retreat of the glaciers. Large bodies of water and lakeside aboriginal adaptations were common. Large stemmed points were employed with the aid of atlatls are representative of an adaptation that was in part focused on lacustrine environments.

- Millingstone Horizon (ca. 6000 B.C. to A.D. 1000), during which mobile hunter-gatherers became more sedentary and plant foods and small game animals came to the forefront of subsistence strategies. This horizon is often characterized by a large number of millingstones, especially well-made, deep-basin metates and portable formalized handstones (manos), an abundance of scraping tools (including scraper planes and pounding/pulping tools), and only a slight representation of dart tipped - projectile points;

- Late Prehistoric Period (ca. A.D. 1000 to 1500), during which a more complex social organization, more diversified subsistence base and an extensive use of the bow and arrow is evidenced by smaller, lighter projectile points, expedient millingstones and, later, pottery—and the full development of regional cultures and tribal territories;

- Protohistoric Period (ca. A.D. 1500 to 1700s), which ushered in long-distance contact with Europeans, and thereby led to the Historic Period (ca. A.D. 1700 to contemporary times).

2.2.2 Ethnohistoric Context

The Project area lies within the area of the Gabrielino/Tongva ethnolinguistic group (Bean and Smith 1978:538), who speak languages classified as members of the Uto-Aztecan language stock family. Gabrielino is specifically identified as an element of the Northern Takic Branch of that linguistic group.

The Gabrielino were considered the most populous, wealthiest, and therefore most powerful ethnic nationality in aboriginal southern California (Bean and Smith 1978:538). Unfortunately, most Gabrielino cultural practices had declined long before systematic ethnographic studies were instituted. Today, the leading sources on Gabrielino culture are Bean and Smith (1978), and McCawley (1996).

According to the recent research of several prehistorians, Takic groups were not the first inhabitants of the region. Archeologists suggest that the Takic in-migration may have occurred as early as 2,000 years ago, replacing or intermarrying with indigenous Hokan speakers (Howard and Raab 1993; Porcasi 1998). By the time of European contact, the Gabrielino territory included the southern Channel Islands and the Los Angeles Basin reaching east into the present-day San Bernardino-Riverside area and south to Aliso Creek in central Orange County.

Different groups of the Gabrielino adopted varied types of subsistence, based on varying combinations of gathering, hunting, and/or fishing. Because of the similarities to other southern California tribes in economic activities, inland Gabrielino groups' industrial arts, dominated by basket weaving, demonstrated no substantial difference from those of their neighbors (Kroeber 1925). Coastal Gabrielino material culture, on the other hand, reflected an elaborately developed artisanship most recognized through the medium of steatite, which was rivaled by few other groups in southern California.

The intricacies of Gabrielino social organization are not well known. There appeared to have been at least three hierarchically ordered social classes, topped with an elite class consisting of the chiefs, their immediate families, and the very rich (Bean and Smith 1978). Some individuals owned land, and property boundaries were marked by the owner's personalized symbol. Villages were politically autonomous, composed of non-localized lineages, each with its own leader. The dominant lineage's leader was usually the village chief, whose office was generally hereditary through the male line. Often several villages were allied under the leadership of a single chief. The villages were frequently engaged in warfare against one another, resulting in what some consider to be a state of constant enmity between coastal and inland Gabrielino groups.

The first Franciscan establishment in Gabrielino territory and the broader region was Mission San Gabriel, founded in 1772. Priests from here proselytized the Tongva throughout the Los Angeles Basin region. As early as 1542, the Gabrielino were in contact with the Spanish during the historic expedition of Juan Rodríguez Cabrillo, but it was not until 1769 that the Spaniards took steps to colonize Gabrielino territory. Shortly afterwards, most of the Gabrielino people were incorporated into Mission San Gabriel and other missions in southern California (Engelhardt 1931). Due to introduced diseases, dietary deficiencies, and forceful *reduccion* (forcing non-agrarian Native populations to the mission compound), the Gabrielino population dwindled rapidly. By 1900, the Gabrielino Native community had almost ceased to exist as a culturally identifiable group. In the late 20th century, however, a renaissance of Native American activism and cultural revitalization among a number of groups of Gabrielino descendants took place. Among the results of this movement has been a return to a traditional name for the tribe, the Tongva, which is employed by several of the bands and organizations representing tribal members. Many of the bands focus on maintaining and teaching traditional knowledge, with special focus on language, place names and natural resources.

The Valley Glenn area, situated in the San Fernando Valley and adjacent to the Los Angeles River and Tujunga Wash, was a prime location for prehistoric settlement. Villages in the area included *Kaweenga* near Universal City (and still recalled in the topographic name Cahuena Peak to the east) (McCawley 1996:40), *Tohuunga* and *Muuhong*a at the northern edge of the Valley (McCawley 1996:39), and *Siutcanga* in Encino to the west (McCawley 1996:38).

2.2.3 Historic Context

2.2.3.1 Spanish / Mexican Era

Spanish occupation of California began in 1769, in San Diego. Prior to that, the first Europeans to explore the area that would become the state of California were members of the A.D. 1542 expedition of Juan Rodriguez Cabrillo. Cabrillo sailed along the coast of California, but did not explore the interior. Europeans did not attempt inland exploration until 1769, when Lieutenant Colonel Gaspar de Portolá led an overland expedition from San Diego to Monterey. This expedition of 62 people passed through the current study area in August 1769 (Brown 2001), and may have encountered the Tongva village of *Siutcanga* in the southwest San Fernando Valley region (Brown 2001:347; McCawley 1996:39). Here the Expedition found a spring with “a populous Indian village” where they “counted as many of two hundred and five, including men, women, and children” (Teggart in McCawley 1996:38). Mission San Gabriel was established in the Los Angeles Basin to the east in 1771, and the Los Angeles pueblo was established as a civilian settlement on September 4, 1781 (Engelhardt 1931). Mission San Fernando Rey de España, just 7.5 miles to the northwest in the Valley, was not founded until 1797 on lands already under production for crops and mining by Francisco Reyes, then alcalde (mayor) of the Pueblo. After Reyes was convinced to

give up his tract of land, Mission San Fernando took possession of all the lands east to the Pueblo and northwest almost to the Simi Valley in support of its growing neophyte population.

Mexico rebelled against Spain in 1810, and by 1821, Mexico, including California, achieved independence. The Mexican Republic began to grant private land to citizens to encourage emigration to California. Huge land grant ranchos took up large sections of land in California. Ranchos surrounded the mission lands in all directions. Except for those large tracts of land, the Mission San Gabriel and Mission San Fernando lands were used for the support of the mission and provided for the large population of Tongva Native Americans. The mission lands were held in trust for Native peoples by the Franciscan missionaries for eventual redistribution.

The use of the San Fernando Valley for grazing and crops was instituted by Reyes and the Franciscan missionaries in the 1790s and this use continued through the secularization of the mission in the mid-1830s. The Ex-Mission San Fernando was awarded as a land grant by the last Governor of Mexican-ruled California Pio Pico to Eulogio de Celis in 1846 to raise funds to fight the invading United States forces, though a portion of it had already been leased to Pico's brother Andres Pico in 1845. By 1853, Celis sold a half interest in the rancho Andres Pico, which included the southern half of the San Fernando Valley and a portion of the Santa Monica Mountains. Ten years later Andres sold his interest in the Rancho Ex-Mission San Fernando to his brother Pio Pico, but they continued to operate it together as a joint venture. By 1869 Pio Pico had to sell their entire part of the rancho to Isaac Lankershim to help pay off mounting debts.

The Mexican-American War of 1846 saw the invasion of California from both land and sea. Following several skirmishes in the San Diego and Los Angeles areas, and the capture of the territorial capital in Monterey, the United States rule was firmly established. Following the rapid influx of Americans to the north because of the Gold Rush of 1849, California was made a state in 1850. The economic and social order was slow to change in the southern portion of the state, and rancheros were left in control of their vast estates through the 1860s. Los Angeles was a part of the "Cow Counties" and had little representation in the state legislature because of the sparse population. This allowed the predominantly Anglo population of the north to pass laws aimed at breaking up the ranches for settlement by Eastern farmers. Coupled with devastating droughts that crippled many livestock raisers, dismemberment of the rancheros soon came. This helped pave the way for the "Boom of the Eighties" which saw an influx of people from the eastern United States and the beginning of many of the towns we see today (Dumke 1944). This was the first big spurt of growth for Los Angeles, and satellite communities started to form around the City to the southeast, west and northwest, and much of the plains between these areas came to be filled with farms and orchards. The Rancho Ex-Mission San Fernando holdings in the San Fernando Valley were broken up during this period and started to be used for individual farms and orchards, while larger portions in the foothills to the north towards Simi Valley were still used for cattle ranching.

2.2.3.2 The American Period to Founding of Grant

A split of the rancho lands in 1869 resulted in Isaac Lankershim and his "San Fernando Farm Homestead Association" obtaining the Pico's half of the San Fernando Valley. Lankershim's son-in-law Isaac Van Nuys took over the operation of dry wheat farming. Eventually residential subdivision of the area took place as part of a real estate development scheme by a Los Angeles syndicate create around 1909 to exploit the anticipated completion of the Los Angeles Aqueduct (the water arrived from the Owens to the San Fernando Valley in 1913, allowing a boom in residential development in vast areas of Los Angeles County).

The town of Van Nuys, where Grant High School is situated, would become one of the earliest and fastest-growing new towns in the Valley. Already a small community prior to the coming of the aqueduct, in 1915 the people there voted to become annexed to the City of Los Angeles along with several other rural Valley towns, including North Hollywood, in order to tap into the City's water system. With the influx of water, dry farming (wheat) rapidly changed to irrigated crops such as vegetables and orchards. The Valley Glen neighborhood in Van Nuys was largely developed after World War II in the 1950s as a part of suburbanization that swept through Southern California. The former Southern Pacific Railroad Burbank branch runs through the southwest portion of Valley Glen and has served to connect the residents to the larger Los Angeles region for more than 100 years.

The Valley Glen neighborhood was originally a part of the communities of both Van Nuys and North Hollywood. In 1994 residents sought to separate their identity from these other communities and in June 1998 voted to officially create their own neighborhood within the City of Los Angeles with the name of Valley Glen. This covers an area of 4.81 square miles with a population of 40,885 as of 2008.

3.0 RESEARCH METHODS

This cultural resources inventory and related archival research included a background archaeological records check (archival research) at the SCCIC, California State University, Fullerton, a Sacred Lands File search request to the NAHC, and the list of local Native American entities to contact from the NAHC. Although the campus is fully developed and does not contain any undisturbed native soils, a pedestrian cultural resource survey of the entire Project area was conducted. This report presents the results of all of these cultural resource studies including cultural resource management recommendations.

3.1 Records Search

A cultural resource records search was conducted by Stephen O'Neil at the SCCIC on October 24, 2016 to identify historic properties on or near the proposed Project site. The California State Historic Resources Inventory for Los Angeles County was reviewed to identify local cultural resources that have been previously evaluated for historic significance, as well as survey reports.

Also searched and reviewed were the official records and maps for archaeological sites and surveys in Los Angeles County, the City of Los Angeles, National Register of Historic Places; Listed Properties and Determined Eligible Properties (2012), California Register of Historical Resources (2012), California Points of Historical Interest (2012), California Inventory of Historic Resources (1976), California Historical Landmarks (2012), Handbook of North American Indians, Vol. 8, California (1978), and Historic Spots in California (2002).

For the current study, the scope of the records search included a 0.5-mile radius buffer zone of the Project's APE (see **Appendix A, Figure 7**) to assess the sensitivity of the Project site for subsurface archaeological resources and to assist in determining the potential to encounter such resources, especially prehistoric—i.e., Native American—cultural remains, during earth-moving activities associated with the project.

3.2 Field Survey

On February 9, 2017, Archaeologist Stephen O'Neil, M.A., RPA, visited the Project area to conduct a pedestrian survey. During the survey, the Project site was carefully inspected for any indication of human activities dating to the prehistoric or historic periods (i.e., 50 years or older). Because of the fully built environment of the site, direct observation of the ground was limited to landscaping around the edges of the parking lot and around the current structures.

3.3 Native American Outreach

On October 17, 2016, Mr. O'Neil sent a Sacred Lands File (SLF) search request to the NAHC via email, fax and United States Postal Service (USPS) mail and notified them of the proposed Project activities (**Appendix C**), and requested information on the local Native American tribes and individuals that should be contacted. The Commission's SLF results were received by email on October 18, 2016. The seven Tribes and Native American contacts recommended by the NAHC were contacted by mail and email on October 19, 2016. The District was contacted July 5, 2016 for a potential list of Native American Tribes that, following the AB 52 process, might be on the District's list of local Native American tribes and organizations that should be contacted regarding their concerns about potential impacts to cultural resources resulting from implementation of projects within the District. To date, LAUSD has not received any requests for notification or

consultation from California Native American tribes regarding resources defined by Public Resources Code § 21074.

4.0 FINDINGS

4.1 Records Search

4.1.1 Recorded Archaeological Sites

Based on the cultural resources records search conducted at the SCCIC, no prehistoric cultural resource sites or isolates, have been recorded within the Project area boundary or within the 0.5-mile radius buffer zone surrounding the Project boundary. Two historic period sites were recorded within the buffer zone (**Table 4.1-1**). The Olive Fresh store and attached three-story warehouse, P-19-188447, was built in 1962, with the addition in ca. 1985 (Crawford 2008). Built in the Modern style with Spanish elements, this commercial building is along Oxnard Street between Bellaire Avenue Boulevard and Whitsett Avenue, approximately one mile east of the northeast corner of Grant High School. An unnamed apartment building in the Mid-Century Modern style is situated on Coldwater Canyon Avenue, approximately 600 feet north of the northeast corner of Grant High School (Krintz 2010). This is a three-story building designed by noted architect Abraham Shapiro. Both structures were assessed and neither appears to qualify for the National Register of Historic Places.

Table 4.1-1
KNOWN CULTURAL RESOURCES WITHIN A 0.5-MILE RADIUS OF THE APE

Site Number	Author(s)	Date	Description
P-19-188447	K.A. Crawford	2008	The Olive Fresh store, a one story commercial building in the Modern architectural style with Spanish style elements built 1962, with an attached three-story warehouse ca. 1985e.
P-19-189973	J. Krintz	2010	An L-shaped three-story multi-family residential building in the Mid-Century Modern style, built 1961.

4.1.2 Previous Archaeological Investigations

According to records at the SCCIC, there have been no previous archaeological cultural resource surveys within any portion of the Project site. However, there have been 11 surveys identified within the 0.5-mile radius project buffer of the Project site boundary (**Table 4.1-2**). As noted above, none of the cultural resource surveys recorded prehistoric or historic cultural resources within the Project boundary. LA-11690 was a historic architectural survey project for a wireless telecommunications facility in 2010 that recorded a 1961 apartment building (P-19-189973) two blocks northwest of Grant High School (**Table 4.4-1**). LA-09597 was also a cultural resources survey for a wireless telecommunications project in the vicinity of Grant High School, that recorded a commercial building (P-19-188447) built in 1962 (Bonner 2009). The other surveys did not record cultural properties with the buffer zone surround the APE (**Table 4.1-1**). Neither of these historic properties (P-19-189973 or P-19-188447) were deemed eligible to the National Register of Historic Places (**Appendix D**).

Table 4.1-2
KNOWN CULTURAL RESOURCE STUDIES WITHIN A 0.5-MILE RADIUS OF THE APE

Report Number	Author(s)	Date	Title	Resources
LA-03789	Anonymous	1996	Phase 1 Archaeological Survey / Class III Inventory, San Fernando Valley East-West Transportation Corridor Study Area, Los Angeles, California.	NA
LA-05599	C. Duck	1999	Cultural Resources assessment for Pacific Bell Mobile Service Facility La 698-02, County of Los Angeles, California.	NA
LA-07777	R.D. Mason & P.A. Paterson	2002	Cultural Resources Records Search and Literature Review Report for the City Trunk Line South Project City of Los Angeles Department of Water and Power Los Angeles County, California	NA
LA-07784	M.C. Horne	2003	Archaeological Survey Report Los Angeles Valley College, Los Angeles County, California	NA
LA-07812	W.H. Bonner	2005	Cultural Resources Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate La-698-01 (ni-074-01) Karsten Imports, 55338 Fulton Avenue, Van Nuys, Los Angeles County, California	NA
LA-07835	D.S Whitley & J.M. Simon	2000	Phase 1 Archaeological Survey / Class III Inventory, San Fernando Valley East-West Transportation Corridor, Brt Alternative, Study Area, Los Angeles, California.	NA
LA-08876	W.H. Bonner	2006	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate La0061b (Burbank Blvd. – Nextel Palm), 13222 Burbank Boulevard, Sherman Oaks, Los Angeles County, California	NA
LA-09597	W.H. Bonner	2009	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11827A (Olive Fresh), 12521 Oxnard St., North Hollywood, Los Angeles County, California	19-188447
LA-11690	Gavin, A.	2010	Results of a Historic Architectural Survey and Identification of Properties within the Project's Area of Potential Effects (APE); Partial Section 106 Compliance for a proposed Wireless Telecommunications Service Facility, Located at 6131 Coldwater Canyon.	19-189973

Report Number	Author(s)	Date	Title	Resources
LA-12505	J. Wallace, S. Dietler & L. Kry	2012	Draft Phase I Cultural Resources Assessment, San Fernando Valley Water Recycling Project, City of Los Angeles, California	19-003306, 19-100281, 19-167303, 19-170966, 19-170967, 19-173061, 19-175261, 19-186585, 19-186642, 19-187950, 19-188173, 19-188464, 19-188848
LA-12798	K. Anderson	2014	Los Angeles Unified School District Five Campus Building Inventory, City of Los Angeles, California	19-175478, 19-190950, 19-190951, 19-190952, 19-190953

4.2 Native American Outreach

The results of the NAHC's SLF search of October 18, 2016 did not locate any tribal resource sites within the *Van Nuys* USGS Quadrangle of the APE that may be impacted by the project (see **Appendix C**).

On October 19, 2016 letters with accompanying maps were transmitted to all seven tribes, and emailed the letters and maps to each of the tribal contacts for which email addresses were known (**Appendix C)**. Follow-up correspondences were completed with all points of contact. These contacts and replies are described in the Native American Contact Log in **Appendix C**.

While no specific resources of cultural value or knowledge of resources, or concerns for this Project site were identified during these correspondences, general concerns regarding recent projects in the Los Angeles area were noted by one contact -- the Gabrielino Band of Mission Indians requested that tribal monitors be present at all subsurface excavations, related to the Project (**Appendix C**).

4.1.1 Tribal Cultural Resources (Assembly Bill 52)

Assembly Bill 52 requires meaningful consultation with California Native American Tribes on potential impacts to tribal cultural resources (TCRs), as defined in Public Resources Code § 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources.

As part of the AB 52 process, Native American tribes must submit a written request to LAUSD (lead agency) to be notified of projects within their traditionally and culturally affiliated area. LAUSD must provide written, formal notification to those tribes within 14 days of deciding to undertake a project. The tribe must respond to LAUSD within 30 days of receiving this notification if they want to engage in consultation on the project, and LAUSD must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either (1) the parties agree to

mitigation measures to avoid a significant effect on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

To date the District has not received any Tribal requests to be notified about projects within the District pursuant to AB 52. No sites within the APE were documented in the NAHC's sacred land file search.

4.3 Pedestrian Survey Results

A pedestrian survey was conducted on February 9, 2017. The survey consisted of walking, visually inspecting, and photographing the exposed ground surface and landscaped areas in Development Zones 1 - 4 of the campus using standard archaeological procedures and techniques.

Planned modifications to the school would entail permanent buildings to be removed and replaced in the central portion of the main campus, permanent buildings in the north and southern portion of the main campus, and portable buildings to be removed from the outlying northwestern portion of the campus (**Appendix A, Figure 8**). The central portion of the main campus contains a courtyard with landscaping consisting of lawn, trees and shrubs. The periphery of the central courtyard contains a combination of shrub/tree beds and hardscape. Survey transects were conducted in an opportunistic manner in conformity with the available exposed ground surface. The survey was conducted in each area where proposed alterations to the buildings and grounds will be conducted. All exposed ground surface was observed. The open space between the central permanent buildings in the main campus consisted of both lawns and shrub/tree beds. The western backside of the central buildings facing the athletic fields consists of asphalt blacktop with no exposed surfaces. The outlying northwest portion of the campus had narrow strips of grass and shrubs between buildings and access roads. The lawn areas were well maintained with no die-back patches that might have exposed soil, and no gopher or ground squirrel tunnels that might have brought soil to the surface. This may be seen in the lawns along the Administration building and across from the Arts building (**Figure 4.1-1** and **Figure 4.1-2**). Areas of exposed surface was observed in the shrub/tree beds as exemplified in the strip along the north side of the Arts buildings and the tree-lined corridor in front of the Library (**Figure 4.1-3** and **Figure 4.1-4**). Surface visibility in the landscaped areas was limited to approximately five percent due to the presence of grass and some weeds, though the beds had open areas under the tree and shrub canopies that allowed for better visibility.

The result of the pedestrian survey was negative for both prehistoric and historic sites and isolates.

Figure 4.3-1
LAWN ON SOUTH SIDE OF ADMINISTRATION BUILDING; VIEW TO EAST

Figure 4.3-2
LAWN TO NORTH OF ARTS BUILDING; VIEW TO NORTH

Figure 4.3-3
LANDSCAPING AND GROUND SURFACE ON NORTH SIDE OF ARTS BUILDIBG; VIEW TO WEST

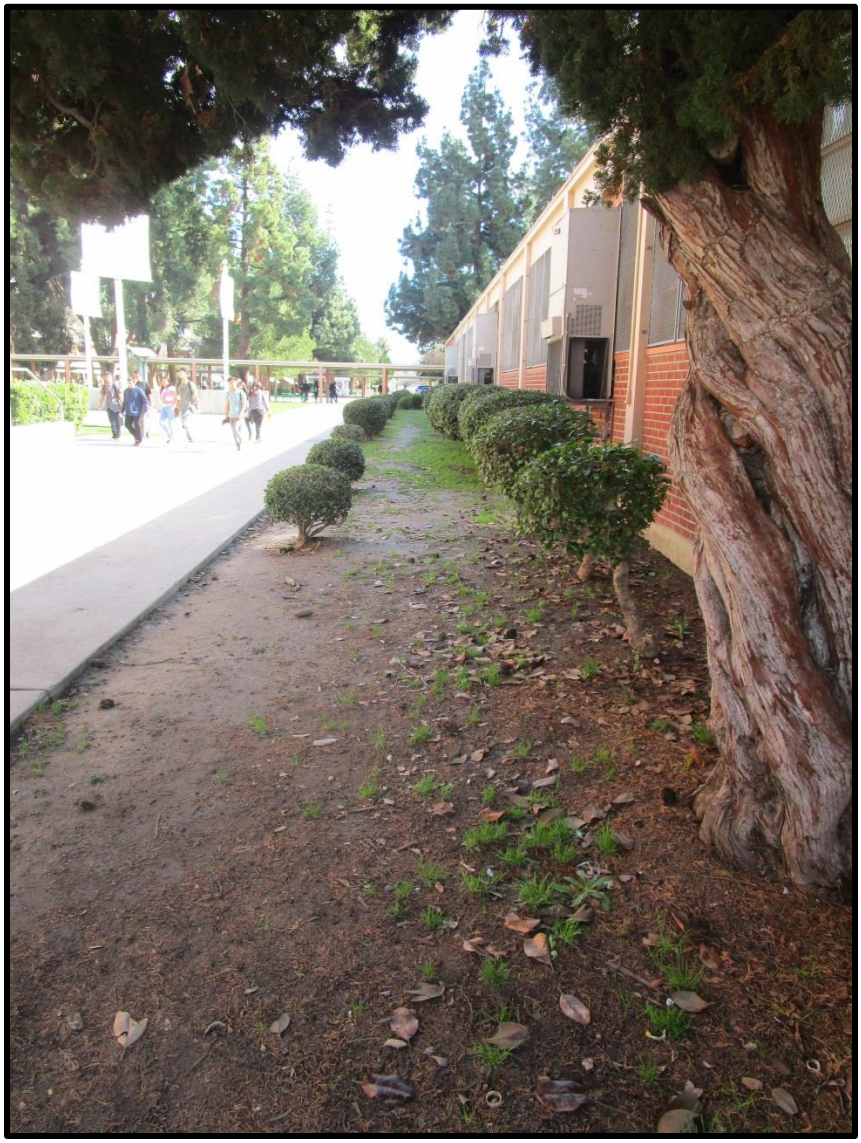

Figure 4.3-4
TREE BED COORIDOR IN FRONT OF LIBRARY; VIEW TO SOUTH

5.0 MANAGEMENT CONSIDERATIONS

5.1 Site Evaluation Criteria

Evaluation of significance under the California Environmental Quality Act (CEQA) uses criteria found in eligibility statements for the California Register of Historical Resources (CRHR). Generally, a resource is to be considered historically significant if it meets the criteria for listing in the California Register of Historical Resources in the state historic preservation law [Public Resources Code § 5024.1; California Code of Regulations § 15064.5(a)(3)]. These criteria provide that a resource may be listed as a potentially significant historical resource if it:

- Is associated with the events that have made a significant contribution to the broad patterns of California history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
- Has yielded, or may be likely to yield, information important in prehistory or history.

No cultural (prehistoric and/or historic archaeological) resources were identified during the present investigation; therefore, evaluation was not required for this study.

5.2 Potential Effects

No known, potentially significant cultural resources will be adversely impacted by the proposed Project. However, the San Fernando Valley is known to have contained several Tongva villages during the Late Prehistoric and Contact periods. Also, the adjacent Tujunga Wash would have provided an attractive resource to Native American settlement. Therefore the potential presence of buried cultural (prehistoric and/or historic archaeological) resources cannot be ruled out. As such, LAUSD's Standard Condition of Approval (SC) SC-CUL-13 (as specified below) will be implemented.

SC-CUL-13 All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources

In the event that human remains are discovered, Government Code § 27460 et seq. mandates that there shall be no further excavation or disturbance until the Los Angeles County Coroner has determined that the remains are not subject to the provisions of § 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of death, and the required 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 § 5097.98 of the Public Resources Code.

Also, LAUSD's Standard Condition of Approval (SC) SC-TCR-01 (as specified below) will be implemented.

SC-TCR-1 All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.

6.0 CONCLUSIONS AND RECOMMENDATIONS

No prehistoric or historic archaeological resources were observed during the field survey. The possibility of subsurface cultural and or historical deposits is minimal. The previous cultural resources surveys within the half-mile buffer zone resulted in no archaeological sites or isolates being recorded. The fully built environmental of the Project site and elevation relative to adjacent roads suggests that ground here has been significantly cut and filled, with no original surface soil remaining. While seven historic properties were identified within the half-mile buffer zone, none are within the APE, and the results of the pedestrian assessment indicate it is highly unlikely that historic properties will be adversely affected by construction of the Project.

One of the Native American tribal organizations, Chairperson [redacted] with the Gabrielino Band of Mission Indians, recommended archaeological and tribal monitoring take place at all construction projects with subsurface work, including the present Project. The cultural resource study findings suggest that there is a low potential for finding resources. At a minimum, however, if prehistoric and/or historic items are observed during subsurface activities, work should be stopped in that area and a qualified archaeologist and Native American monitor should be called to assess the findings and retrieve the material (per SC-CUL-18). If human remains are encountered during excavations associated with this Project, work will halt and the Los Angeles County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are of recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the NAHC. The NAHC will be responsible for designating the most likely descendant (MLD), who will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of his or her notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).

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APPENDICES

APPENDIX A

PROJECT MAPS

Figure 5
Project Regional Location Map

Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

Path: J:\Projects\6013_LAUSD_Grant\MXDs\IS_MND\6013_Grant_2.0_Regional_Location_2016_08_31.mxd

August 31, 2016

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Grant High School Comprehensive Modernization Project

Regional Location

Scale 1:633,600

N

Legend

- Project Location
- County Boundary

0 5 10 Miles

0 5 10 Kilometers

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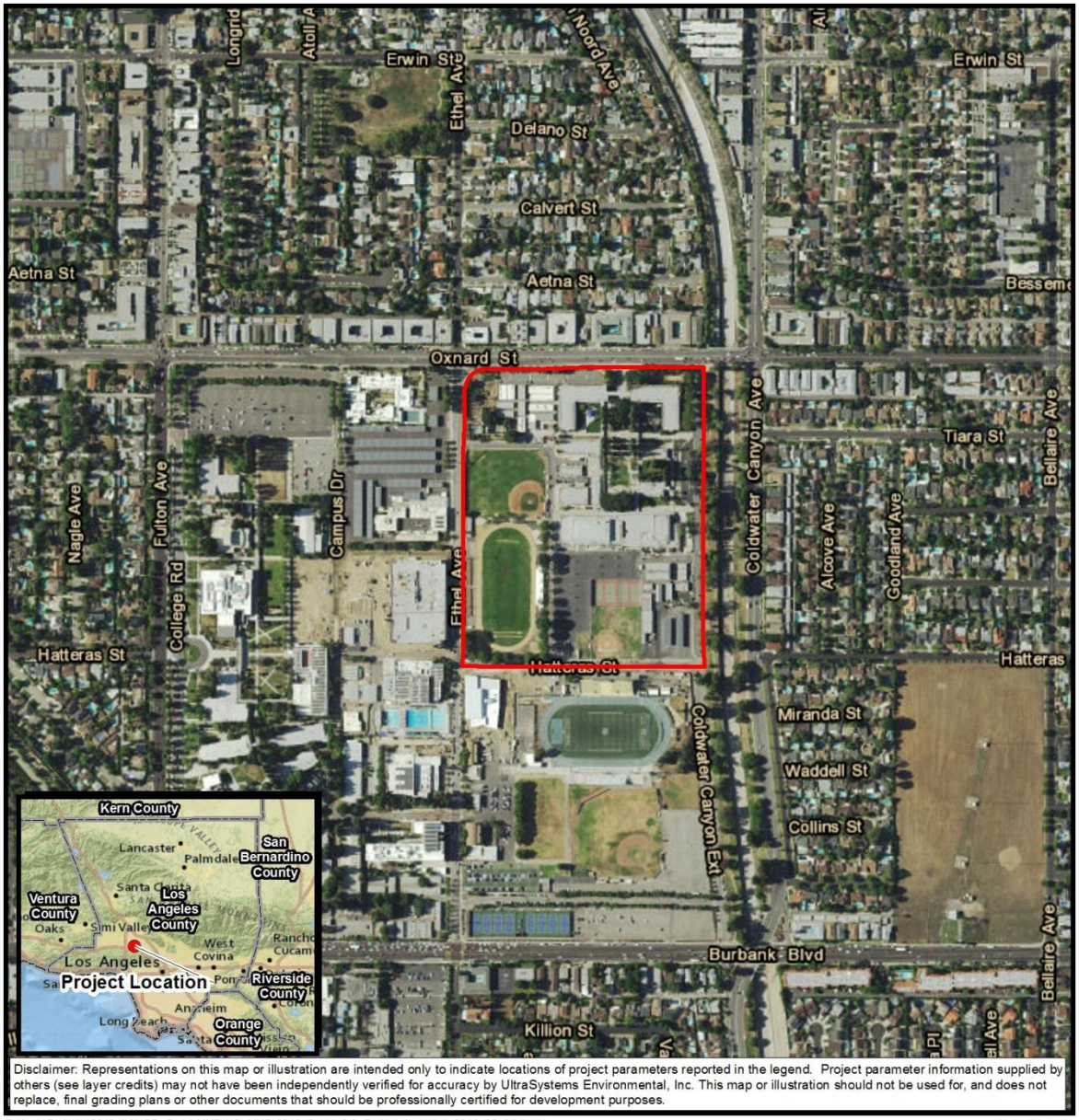
Figure 6
Project Study Area



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August 31, 2016

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Grant High School Comprehensive Modernization Project

Project Location

Scale 1:7,200

N

Legend

Grant High School Parcel Boundary

0 300 600 Feet

0 100 200 Meters

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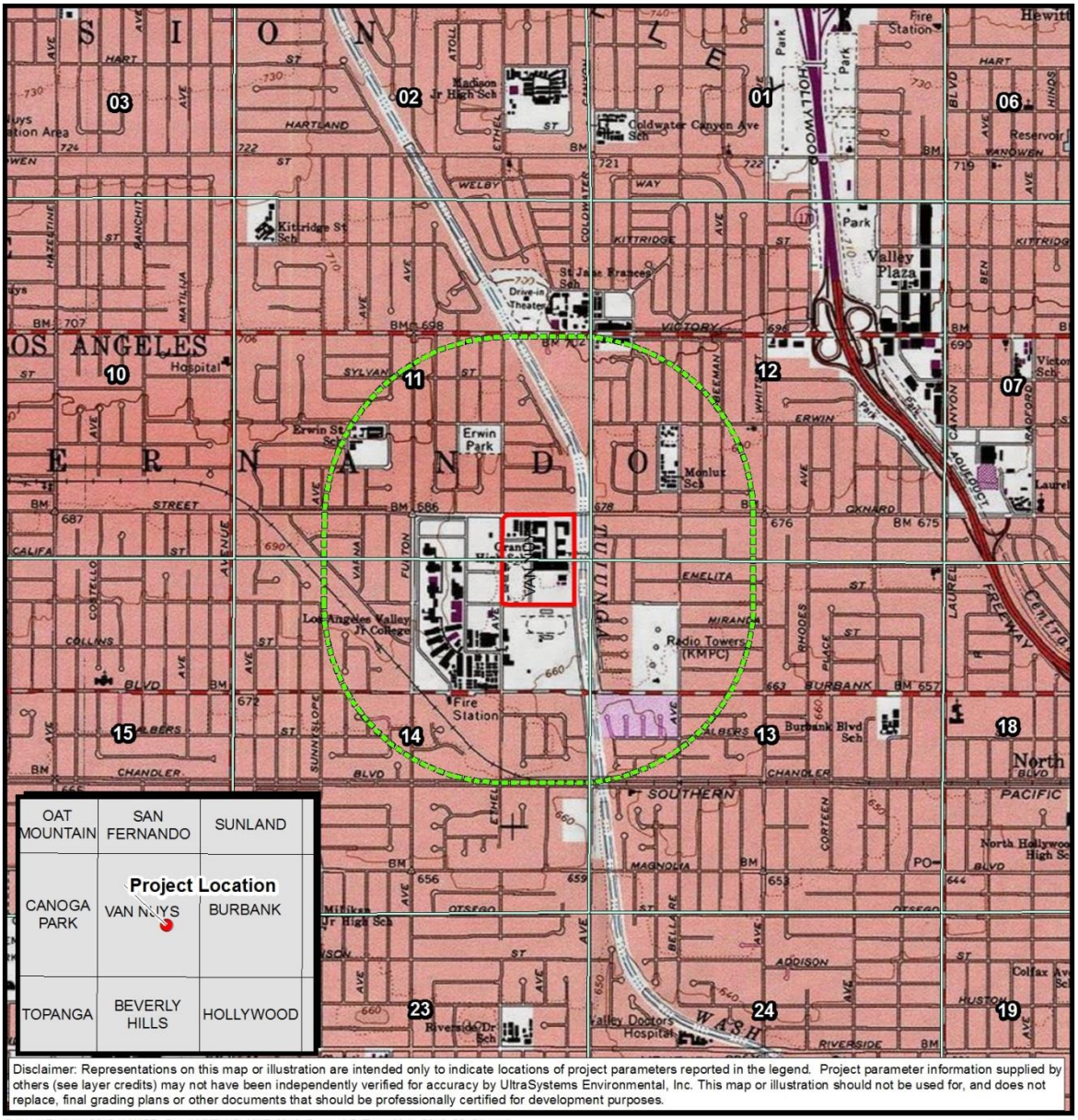
Figure 7
Topographic Map with APE Shown



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August 31, 2016

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Grant High School Comprehensive Modernization Project

Topographic Map

Scale 1:24,000

N

0 1,000 2,000 Feet

0 250 500 Meters

Legend

- Grant High School Parcel Boundary
- Half-Mile Radius
- Section Boundary
- Quadrangle Boundary

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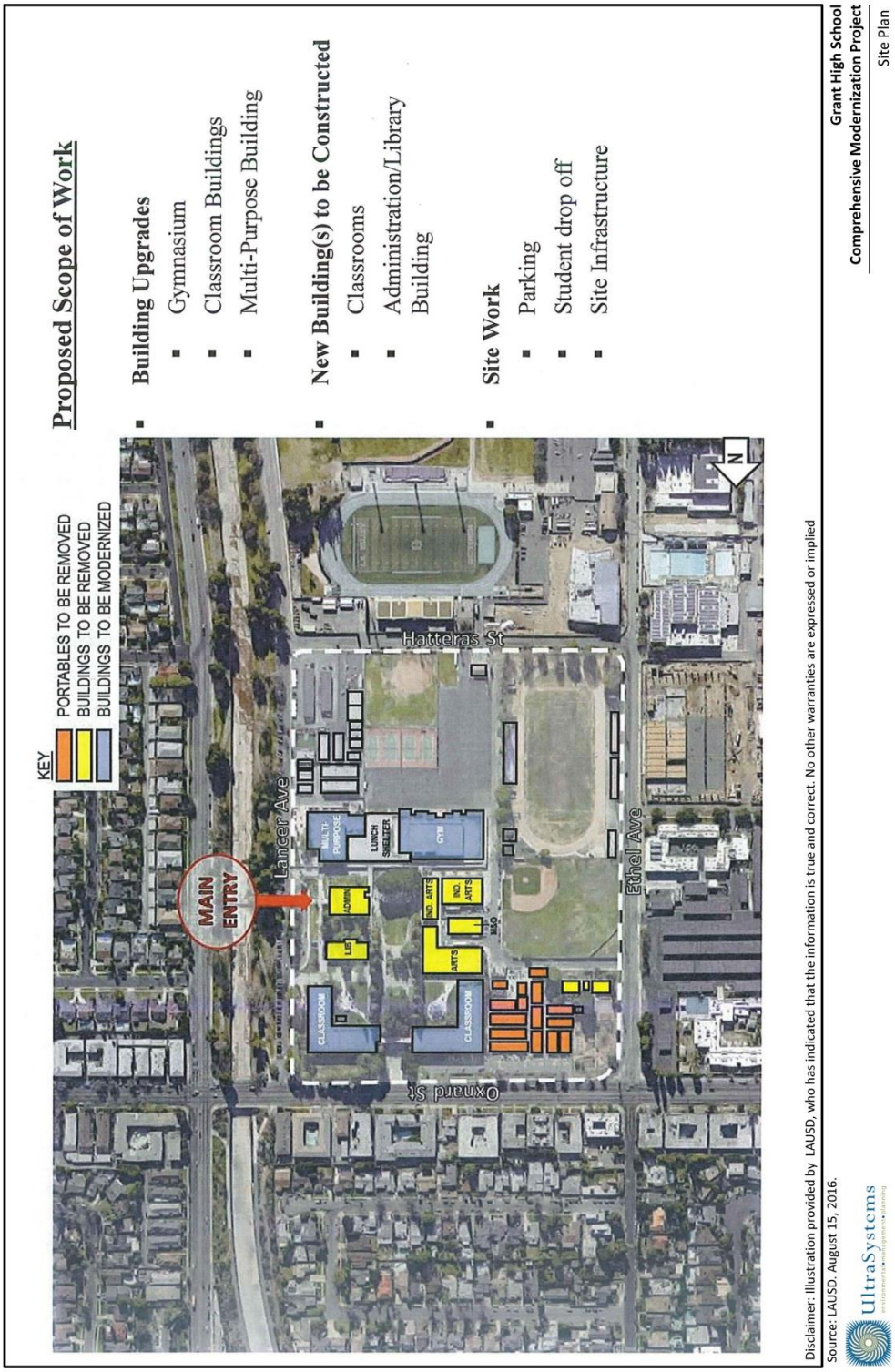
Figure 8
Grant High School Proposed Scope of Work



APPENDIX B

PERSONNEL BACKGROUND

Stephen O'Neil, M.A., RPA

Cultural Resources Manager, Cultural Anthropology/Archaeology

Education

- M.A., Anthropology (Ethnography emphasis), California State University, Fullerton, CA, 2002
- B.A., Anthropology, California State University, Long Beach, CA, 1979

Professional and Institutional Affiliations

- California Mission Studies Association
- City of Laguna Beach Environmental Sustainability Committee, appointed 2012
- Orange County Natural History Museum; Board Member
- Pacific Coast Archaeological Society; Board Member and Past President
- Society of California Archaeology

Professional Registrations and Licenses

- Register of Professional Archaeologists (No. 16104) (current)
- Riverside County, CA, Cultural Resource Consultant (No. 259) (current)
- Cultural Resource Field Director, BLM Permit (CA-13-19) – California, 2013
- NEPA and CEQ Consultation for Environmental Professionals; course by the National Association of Environmental Professionals, 2013

Professional Experience

Mr. O'Neil has 30 years of experience as a cultural anthropologist in California. He has researched and written on archaeology, ethnography, and history. Mr. O'Neil has archaeological experience in excavation, survey, monitoring, and lab work. Most of this has been on Native American prehistoric sites, but also includes Spanish, Mexican, and American period adobe sites. His supervisory experience includes excavation and survey crew chief and project director of an adobe house excavation. He has a wide range of expertise in Phase I & II Environmental Site Assessments, archaeological resource assessment surveys, salvage operations, and cultural background studies for various EIR projects. Mr. O'Neil has worked for cultural resource management firms as well as government agencies and Native American entities. He has prepared technical reports as well as published journal articles.

Select project experience

Inglewood Avenue Corridor Widening Project, City of Lawndale, Los Angeles County, CA: 2013-2014

Mr. O'Neil directed and conducted archaeological field survey, cultural resource records search, Native American contacts and report writing for this project. The City of Lawndale is widening Inglewood Avenue from Marine Avenue north. The project uses Caltrans funds and the cultural resources report was prepared in Caltrans format. A separate historic properties report was prepared as well. Prepared for Huitt-Zollars Engineering.

Via Ballena Storm Drain Relocation, City of San Clemente, Orange County, CA: 2013

Mr. O'Neil directed and conducted archaeological field survey, cultural resource records search, Native American contacts and report writing for this project. This residential area has a damaged

storm drain under Via Ballena that was causing earth movement and erosion. The meet requirements for state funding, and cultural resources inventory report was required. Prepared for the City of San Clemente

Pine Canyon Road – Three Points Road to Lake Hughes Road, Los Angeles County, CA: 2013

Mr. O'Neil directed and conducted archaeological field survey, cultural resource records search, Native American contacts and report writing for this project. This nine-mile portion of Pine Canyon Road lies partially within the Angeles National Forest. A series of widening and culvert repairs is planned by the Los Angeles County Department of Public Works (LACDPW). An assessment was made of possible cultural resources, historic and prehistoric that may be affected by the construction, and four historic sites were recorded. Prepared for LACDPW.

Alton Parkway Extension Project, Cities of Irvine and Lake Forest, Orange County, CA: 2012

Mr. O'Neil directed and conducted archaeological and paleontological monitoring, archaeological excavation, cultural resource records search, Native American contacts and report writing for this project. Alton Parkway was extended 2.1 miles between the cities of Irvine and Lake Forest. For the portion within the City of Irvine, UltraSystems conducted monitoring and excavation services. One prehistoric site was excavated and reported on; a series of living features were discovered and also reported. The final monitoring report described the paleontological and archaeological findings. A separate technical report on the archaeological excavations was also prepared. Mr. O'Neil directed research into historic and prehistoric background, and prepared the final assessment of potential impacts. Prepared for the Orange County Department of Public Works.

NEPA and CEQA Documentation, Los Angeles Regional Interoperable Communications System (LA-RICS), Los Angeles County, CA: 2011-2014

Mr. O'Neil is part of UltraSystems team currently preparing technical studies and NEPA and CEQA documentation toward the construction of LA-RICS, an $800-million emergency communications system due to be operational in 2016. LA-RICS will provide a highly-coordinated emergency communications system to all first-responders to natural and man-made disasters throughout Los Angeles County. Mr. O'Neil is the cultural and historical resources studies team leader, directing five researchers. These studies include coordination of field visits to all 260-plus locations for an archaeologist and/or an architectural historian with agency escorts to observe and record any on-site prehistoric and historic features, performing records and literature searches at archaeology information centers and local archives, contacting local agencies for historically listed structures and districts, coordinate public notices of the project throughout Los Angeles County, consultation with the Native American Heritage Commission and all local tribal organizations, and direct consultation with the California State Historic Preservation Officer (SHPO). This information was compiled by Mr. O'Neil and is used to prepare FCC historical resource forms which were submitted to the SHPO for review.

Megan R. Black

Archaeological Technician

Education

- M.A. Public Archaeology, California State University, Northridge, 2012-present
- B.A., Anthropology, California State University, Long Beach, 2011
- University of California, Los Angeles- Pimu Catalina Archaeological Field School, 2010
- International Scholar Laureate Program: Delegation on Anthropology and Archaeology in China, 2009
- Earthwatch Institute, "Unearthing Mallorca's Past" archaeological excavation, Mallorca, Spain, 2005

Professional and Institutional Affiliations

- Phi Kappa Phi National Honor Society, 2011
- Sigma Alpha Lambda, National Leadership and Honor Organization, 2010
- Society for California Archaeology Membership 2012-2015

Professional Experience

Ms. Black has worked in the field of cultural resource management for five years at environmental firms. Before this Ms. Black had participated in multiple field schools in Southern California and abroad. She has experience in survey, excavation, laboratory work, and information searches. Ms. Black holds the title of Archaeological Technician at UltraSystems Environmental. Prior to this, she completed a CRM internship at UltraSystems. These positions have provided her with the opportunity to contribute to proposals, final reports, project scheduling, archaeological record searches and paleontological, archaeological and Native American monitor organizing for projects.

Select project experience

Results of the Condition Assessment, Site Monitoring, and Effects Treatment Plan (CASMET) Marine Corps Base Camp Pendleton, San Diego County, CA

Client: Marine Corps Base Camp Pendleton, Duration: 5/11 to 9/11

Ms. Black conducted survey and excavation for the USMC Base Camp Pendleton condition assessment project. Areas were tested around Camp Pendleton for the presence and condition of cultural material previously recorded. She also conducted laboratory work and curation for the material collected within excavations. Ms. Black contributed to the final report with background records searches and prehistoric and historic background writing for the report.

Archaeological Excavation Results Report for the Alton Parkway Extension Project, Orange County, CA

Client: Orange County Department of Public Works; 10/10 to 6/12

Ms. Black participated in the Alton Parkway project, City of Irvine, Orange County, CA. She was responsible for cleaning and cataloging the artifacts recovered from the excavation and surface collections. She also contributed to the final report by compiling the historical background information.

Identification and Evaluation of Historic Properties ADA Wheelchair Access Ramp Improvement Project, City of Lake Forest, Orange County, CA

Client: City of Lake Forest/Penco, 6/12 to 7/12

Ms. Black contributed to the cultural resource records search, field survey, Native American contacts and report writing for this project. This residential area required wheelchair access ramps on every corner in this neighborhood. An assessment of the possible cultural resources that may be affected with this construction was made for the City of Lake Forest. Ms. Black contributed the historic and prehistoric background, and the assessment of the possible resources in the area.

Tenaska Solar Projects Imperial Solar Energy Center–South; Imperial Solar Energy Center–West; and Wistaria Ranch, Imperial County, CA

Client: Tenaska/CSOLAR Development, 10/13 to 8/15.

Ms. Black conducted Native American contacts for field monitoring, coordinated with subcontractors to initiate cultural and paleontological field surveys, for the several solar energy projects being handled by UltraSystems Environmental in the El Centro area, Imperial County, CA. She contributed different parts of the survey report and monitoring program documents, including historic and prehistoric background, editorial review. At ISEC- West, Ms. Black was responsible for contacting and organizing Tribal monitors for this project. She contacted tribal organizations and inquired about their interest in providing tribal monitors for this project. Ms. Black directly organized with Native American groups to sign agreements, and fill out tax paperwork. She was also responsible for organizing and keeping track of and gathering field log from monitors from six tribal groups. She also recovered previously recorded artifacts in the field before the start of the project.

NEPA and CEQA Documentation, Los Angeles Regional Interoperable Communications System - Long Term Evolution, Los Angeles County, CA

Client: LARICS Joint Powers Authority, 1/12 to 1/15.

UltraSystems' team prepared technical studies and NEPA and CEQA documentation toward the construction of LA-RICS-LTE, an $800-million emergency communications system that will provide a highly-coordinated emergency communications system to all first-responders to natural and man-made disasters throughout Los Angeles County. For this project, Ms. Black conducted record searches at the South Central Coastal Information Center for the Department of Commerce on over 300 project sites throughout the County of Los Angeles. She helped prepare letters to the NAHC and tribal organizations associated with the project area. Ms. Black contributed to contacting, organizing, and scheduling architectural historians to conduct historical research around the project areas. Letters were written for contact to local agencies and cities. A public notice was constructed and published in three local newspapers. Ms. Black also constructed hundreds of Federal Communications Commission 620 and 621 forms for submission to California State Historic Preservation Office.

Newton Canyon Monitoring Project, CA

Client: County of Los Angeles Department of Public Works, Duration: 7/13 to 12/13

Ms. Black was an archaeological monitor for this project. She monitored all ground disturbing activities as well as lightly surveying the area for cultural material. Ms. Black also conducted the records center research at the South Central Coastal Information Center at CSUF. Through email, letter, and telephone correspondence, Ms. Black contacted the NAHC and associated tribal groups.

APPENDIX C

Native American Heritage Commission Records Search and Native American Contacts

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October 17, 2016

Ms. Katy Sanchez, Associate Government Program Analyst
Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, California 95691

Subject: Historic Resources Study, Three Los Angeles Unified School District High Schools Upgrades in the City of Los Angeles, Los Angeles County, California. UltraSystems Environmental Projects No. 6011, 6012 and 6013.

Dear Ms. Sanchez,

UltraSystems Environmental, Inc. (UEI) has been contracted by the Los Angeles Unified School District, to conduct a cultural resources inventory in support of their project to conduct a facilities upgrade at three high schools. As part of the Los Angeles Unified School District's (LAUSD's or District's) School Upgrade Program, the District plans to implement a comprehensive modernization project at Venice, North Hollywood and Grant High Schools in Los Angeles and North Hollywood, California. A survey of the campuses found existing structures, mechanical systems, and athletic facilities are outdated, requiring rehabilitation or modernization to meet current needs. The project will demolish various old structures, remove others, and construct new buildings.

UltraSystems will be conducting a cultural resources study to evaluation the potential presence of prehistoric and historic resources within the project boundary. I am requesting a Native American Contact List of interested tribes, organizations and individuals in the general Project area, and a search of the Sacred Lands File for potential traditional cultural sites.

Project Descriptions:

A survey of the Venice High School campus found existing structures, mechanical systems, and athletic facilities are outdated, requiring rehabilitation or modernization to meet current needs. The campus was built between 1913 and 1914, and rebuilt following the 1933 Long Beach earthquake. Most of the current buildings were built between 1933 and 1959, although alterations and additions continued through 1980. The project would address the deficiencies identified in the campus-wide survey through demolition of structures and systems that are beyond repair; construction of new buildings and mechanical systems; and upgrades to infrastructure, including sanitary sewers, water lines, flood control, landscape and electrical utilities. Facilities to be removed include the following: A competitive gymnasium building, a practice gymnasium building, three industrial arts classroom buildings, approximately 14 classrooms located in relocatable buildings, and a utility building. The following structures would be built: 30 classrooms (general and specialty) and support spaces; gymnasium (practice and competitive facilities); new bleachers

Corporate Office – Orange County
16431 Scientific Way
Irvine, CA 92618-7443
Telephone: 949.788.4900, ext. 276
Facsimile: 949.788.4901
Website: www.ultrasystems.com

and resurfacing of the grass field and track in the football stadium; new bleachers and a backstop for the baseball field, and; Various site-wide upgrades to remove identified and prioritized barriers to program accessibility per the Americans with Disabilities Act.

The North Hollywood High School Comprehensive Modernization Project would include demolition of structures that are beyond repair, construction of new buildings, upgrades to infrastructure, painting, and seismic retrofits for building stabilization and safety. The main permanent buildings on the campus were built as early as 1927 and include the main administration building, classroom, library, cafeteria, gymnasium and shop and mechanic buildings. A campus expansion occurred in the mid-1950s with another expansion taking place again in the late 1990s. The Project would include demolition of the following facilities: boys' and girls' physical education buildings, classroom building (Randolph Hall), wood shop building, shop building, auto shop building, musical instrument classroom, student store and concession buildings, and approximately 29 classrooms in relocatable and modular buildings. The following structures would be built to current code requirements and LAUSD design standards: approximately 62 classrooms (general, science, and specialty) and support spaces; and Gymnasium.

The Grant High School Comprehensive Modernization Project would include demolition of structures that are beyond repair, construction of new buildings, seismic retrofit, mechanical systems upgrades and modernization of existing buildings, and upgrades to infrastructure, including sanitary sewers, water lines, and electrical utilities. The core campus is composed of one- and two-story permanent buildings clad in brick, dating to 1958 and 1959. Clusters of one-story portable buildings dating from 1935 to 1991 are located in the northwest and southeast corners of the campus. Facilities to be removed include the following: administration building, library building, maintenance and operations (M&O) building, arts building, two industrial arts classroom buildings, agricultural/horticultural classroom building and auxiliary structures, and approximately 27 classrooms located in relocatable buildings. The following structures would be built: approximately 40 general, science and specialty classrooms and support spaces, administration building, library building, M&O building, and gymnasium.

Project Locations:

Venice High School is located on a 28.8-acre site at 13000 Venice Boulevard in the city of Los Angeles, California. Regional access to the campus is provided by Venice Boulevard, which intersects Interstate 405; the campus is bordered by Lyceum Avenue to the east, Zanja Street to the south, and Walgrove Avenue to the west. The project is specifically located on the *Venice, Calif.*, USGS 7.5' topographic quadrangle, Range 15 W, Township 2 S, on unsectioned lands within the Rancho Ballona, within the community of Venice in the City of Los Angeles, Los Angeles County. This is shown on the attached map and the Project area is depicted with a one-half mile buffer zone.

North Hollywood High School is located in the Studio City neighborhood within the city of Los Angeles on a 25.1-acre site at 5231 Colfax Avenue. The school is bound by Chandler Boulevard to the north, Colfax Avenue to the east, and Magnolia Boulevard to the south. The project is specifically located on the *Van Nuys, Calif.*, USGS 7.5' topographic quadrangle, Range 14 W, Township 1 N, on unsectioned lands within the Rancho Ex-Mission San Fernando within the community of Studio City in the City of North Hollywood, Los Angeles County.

UltraSystems

Grant High School is located on a 32.4-acre site at 13000 Oxnard Street in the City of Los Angeles, California. Regional access to the campus is provided by Oxnard Street, which intersects California State Route 170 (Hollywood Freeway); the campus is bordered by Lancer Lane to the east, Hatteras Street to the south, and Ethel Avenue to the west. The project is specifically located on the *Van Nuys, Calif.*, USGS 7.5' topographic quadrangle, Range 15 W, Township 1 N, within unsectioned lands of the Rancho Ex-Mission San Fernando within the community of Valley Glen, City of Los Angeles, Los Angeles. This is shown on the attached map and the Project area is depicted with a one-half mile buffer zone.

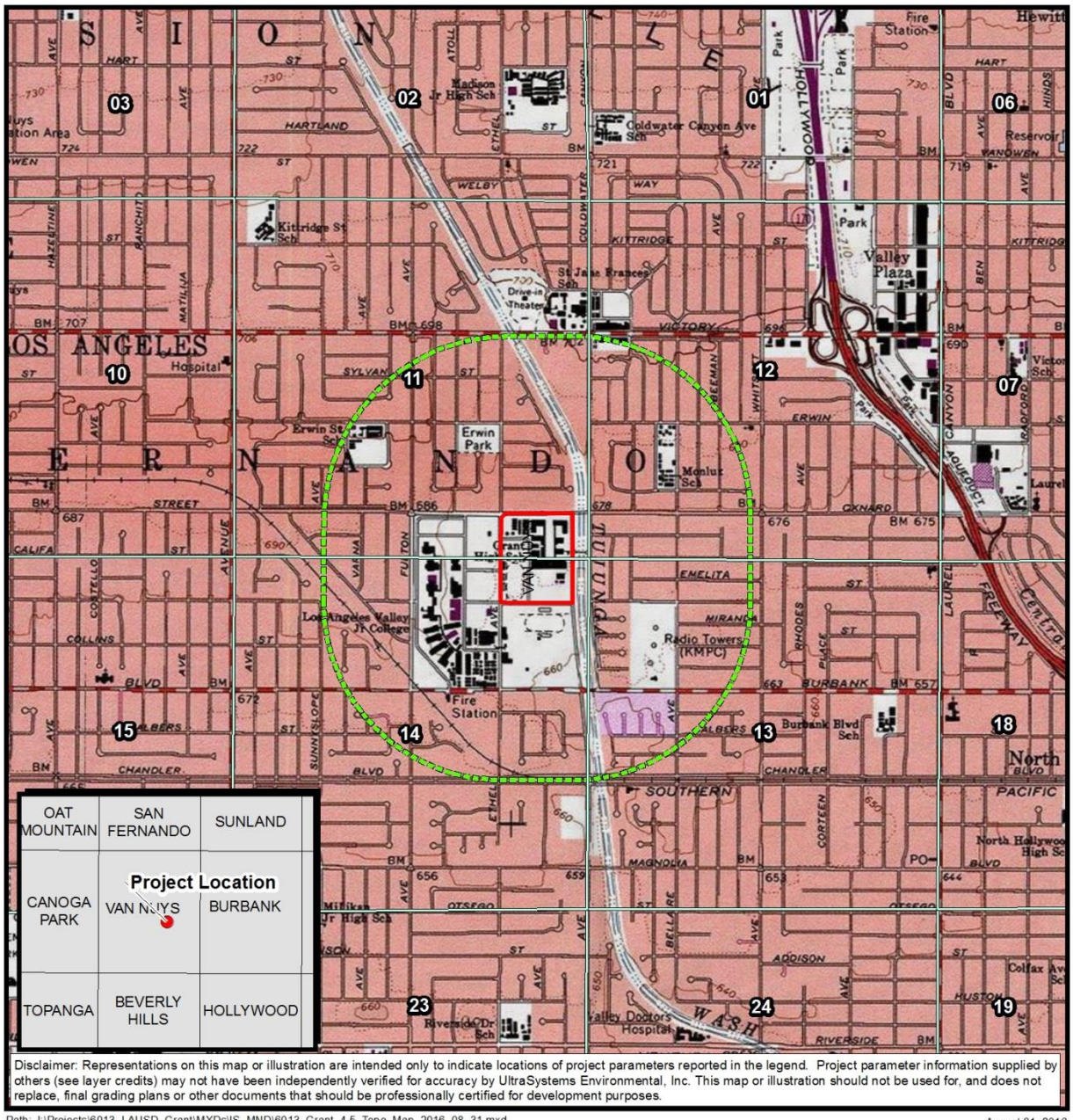
If you require additional information or have any questions, please contact me.

Thank you for your help.

Sincerely,

Stephen O'Neil, M.A., RPA
Cultural Resources Manger
soneil@ultrasystems.com

3



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August 31, 2016

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Grant High School Comprehensive Modernization Project

Topographic Map

Scale 1:24,000

N

0 1,000 2,000 Feet

0 250 500 Meters

Legend

- Grant High School Parcel Boundary
- Half-Mile Radius
- Section Boundary
- Quadrangle Boundary

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STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

October 18, 2016

Stephen O'Neil, Cultural Resources Manager
UltraSystems Environmental Management and Planning

Sent by Email: soneil@ultrasystems.com

RE: Proposed Three Los Angeles Unified School District High Schools Upgrades Cultural Resources Inventory Project, City of Los Angeles; Venice and Van Nuys USGS Quadrangles, Los Angeles County, California

Dear Mr. O'Neil:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* (SLF) was completed for the area of potential project effect (APE) for the above referenced project. Sites have been located within the Venice Quadrangle of the APE you provided that may be impacted by the project. Please contact John Tommy Rosas at (310) 570-6567 for more information about these sites.

Please contact **ALL** culturally affiliated Tribes directly for more information about other potential sites within your APE. Their contact information is on the attached "Native American Contact List."

The absence or presence site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE. Other sources of cultural resources information should be contacted regarding known and recorded sites. Please contact all of the people on the attached list. The list should provide a starting place to locate areas of potential adverse impact within the APE. I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult under applicable laws. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

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Los Angeles Unified School District – Grant High School Upgrade Project
Native American Contact Log

Name	Tribe/Affiliation	Letter and Fax Contacts	E-mail Contacts	Telephone Contacts	Comments[1]
Katy Sanchez, Asst. Government Program Analyst	Native American Heritage Commission	October 17, 2016 (Fax)	October 17, 2016	N/A	Request for Sacred Lands File search and local Native American representatives contact information. Reply received October 18, 2016 from Gayle Totton.
[redacted]	Gabrielino-Tongva Tribe	October 19, 2016 (letter, no fax available)	(no email available)	Telephone call made November 14, 2016.	Letter describing project and requesting input on concerns, October 19. No fax number or email address available. Did not answer telephone call on 11/14; left a message. No response.
[redacted]	Gabrieleno / Tongva Nation	October 19, 2016 (letter, no fax available)	October 19, 2016 (email)	Telephone call made November 14, 2016.	Letter and email describing project and requesting input on concerns on 10/19. No fax number available. On a telephone call on 11/14 [redacted] stated that [redacted] is the Nation's cultural resources contact and we should send the email to him.
[redacted]	Gabrielino/Tongva San Gabriel Band of Mission Indians	October 19, 2016 (letter, & fax)	October 19, 2016 (email)	Telephone call made November 14, 2016.	Letter, fax and email describing project and requesting input on concerns on 10/19. Did not answer telephone call on 11/14; left a message. [redacted] called back the same day asking us to call him again. Telephoned [redacted] on 11/15 and left message. No response to date.

[1] All correspondence dates provided in this column represent the year 2016.

Name	Tribe/Affiliation	Letter and Fax Contacts	E-mail Contacts	Telephone Contacts	Comments[1]
[redacted]	Gabrielino Tongva Indians of California Tribal Council	October 19, 2016 (letter; incorrect fax number)	October 19, 2016 (email)	Telephone call made November 14, 2016.	Letter and email describing project and requesting input on concerns on 10/19. Fax number provided was incorrect – voice phone only. During telephone call on 11/14 [redacted] stated that his family attended Grant High School. That the Council comments only when specific resource are known and generally believes in monitoring; that they will look for material on the project area but if they do not respond within a week then they have no further comments. No further response as of 4/28/17.
[redacted]	Gabrielino Band of Mission Indians	October 19, 2016 (letter, no fax available)	October 19, 2016 (email)	N/A	Letter and email describing project and requesting input on concerns, October 19. No fax number available. Replied by email 10/29 with attached letter; letter stated no specific concerns for this project; it noted three recent projects in Los Angeles City and County where Native American concerns had not been met and the letter therefore requested that tribal monitoring be conducted.
[redacted]	San Fernando Band of Mission Indians	October 19, 2016 (letter, no fax available)	October 1, 2016 (email)	Telephone call made November 14, 2016.	Letter and email describing project and requesting input on concerns 10/19. No fax number available. Did not answer telephone call on 11/14; left a message. No response to date.

Name	Tribe/Affiliation	Letter and Fax Contacts	E-mail Contacts	Telephone Contacts	Comments[1]
[redacted]	Gabrieleno / Tongva Nation	December 6, 2016 (letter, no fax available)	December 6, 2016 (email)	Telephone call December 7, 2016	[redacted] on 11/14 said to email [redacted], that he is the Nation's cultural resources contact. Letter and email describing project and requesting input on concerns sent to [redacted] on 12/6. He responded by email same day requesting a call. Telephone call made on 12/7, left message. No response to date.

APPENDIX D

CHRIS Records Search Bibliography

Report List

Grant High School Project #6012

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03729		1996	Anonymous	Phase 1 Archaeological Survey/class III Inventory, San Fernando Valley East-west Transportation Corridor Study Area, Los Angeles, California	W & S Consultants	
LA-05999		1999	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 698-02, County of Los Angeles, California	LSA Associates, Inc.	
LA-07777		2002	Mason, Roger D. and Patricia A. Peterson	Cultural Resources Records Search and Literature Review Report for the City Trunk Line South Project City of Los Angeles Department of Water and Power Los Angeles County, California	Chambers Group, Inc.	
LA-07754		2000	Perrie, Melinda C.	Archaeological Survey Report Los Angeles Valley College Los Angeles County, California	Applied Earthworks, Inc.	
LA-07812		2005	Bonner, Wayne H.	Cultural Resource Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate La-698-01 (n 074 01) Ranson Imports, 55838 Fulton Avenue, Van Nuys, Los Angeles County, California	Michael Brandman Associates	
LA-07835		2000	Whitley, David S. and Joseph M. Simon	Phase 1 Archaeological Survey/class III Inventory, San Fernando Valley East-west Transit Corridor, Bnf Alternative, Study Area, Los Angeles, California	W & S Consultants	
LA-05876		2006	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Royal Street Communications, Llc Candidate La0061b (Burbank Blvd. - Nextel Palm), 13222 Burbank Boulevard, Sherman Oaks, Los Angeles County, California	Michael Brandman Associates	
LA-08587		2009	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11627A (Olive Fresh), 12521 Oxnard St., North Hollywood, Los Angeles County, California	Michael Brandman Associates, Inc.	19-153147

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APPENDIX I

2017 LAUSD STANDARD CONDITIONS

Los Angeles Unified School District

Standard Conditions of Approval

Grant High School Comprehensive Modernization Project

October 2017

Standard Conditions of Approval

The following Standard Conditions of Approval have been updated since the adoption of the 2015 version in order to incorporate and reflect changes in the recent laws, regulations, and the Los Angeles Unified School District's standard policies, practices, and specifications.

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
AESTHETICS								
☐	SC-AE-1	Degradation of neighborhood character	Demolition of historic building or construction of a new building	During project design (Planning)	**School Design Guide.** This document outlines measures for re-use rather than destruction of historical resources. Requires the consideration of architectural appearance/consistency and other aesthetic factors during the preliminary design review for a proposed school upgrade project. Architectural quality must consider compatibility with the surrounding community.	School Design Guide. Los Angeles Unified School District. Current Version.	Design Builder	Signature Title: Date:
☒	SC-AE-2	Degradation of neighborhood character	May increase graffiti and accumulation of rubbish and debris along the walls adjacent to public rights-of-way	During project operation (Planning, Construction & Post-Construction)	**School Design Guide.** This document outlines measures to reduce aesthetic impacts around schools, such as shrubs and ground treatments that deter taggers, vandal-resistant and graffiti-resistant materials, painting, etc.	School Design Guide. Los Angeles Unified School District. Current Version.	Design Builder and LAUSD, FSD, M&O	Signature Title: Date:
☒	SC-AE-3	Degradation of neighborhood character and viewshed obstruction	Increase density, height, bulk, or decrease setback compared to the surrounding neighborhood; increase opportunities for graffiti	During project design (Planning)	LAUSD shall assess a proposed project's consistency with the general character of the surrounding neighborhood, including any proposed changes to the density, height, bulk, and setback of new building (including stadium), addition, or renovation. Where feasible, LAUSD shall make appropriate design changes to reduce or eliminate viewshed obstruction and degradation of neighborhood character. Such design changes could include, but are not limited to, changes to campus layout, height of buildings, landscaping, and/or the architectural style of buildings.	2004 New Construction Program EIR Mitigation Measure AE-1.1, adopted by the Board of Education on June 2004.	Design Builder	Signature Title: Date:
☐	SC-AE-4	Outdoor signs with electronic message display	Install or change a school marquee	Prior to final design and prior to and during installation	**Marquee Signs Bulletin BUL-5004.1.** This policy provides guidance for the procurement and installation of marquee signs (outdoor sign with electronic message display) on District campuses. The policy includes requirements for the design, approval, placement, operation, and maintenance of electronic school marquees erected and operated at a LAUSD schools. The policy also includes measures to mitigate light and glare, such as the use of "luminaries" in connection with school construction.	School marquees (outdoor sign with electronic message display). BUL-5004.1 adopted May 25, 2010.	Design Builder	Signature Title: Date:
☐	SC-AE-5	Shadows	Construction of buildings or structures taller than surrounding neighborhood	Prior to project approval	**OEHS CEQA Specification Manual, Appendix F, Protocol for Shadow Analysis in CEQA Documents for Proposed School Sites.** This document outlines the methodology and impact thresholds for shadow analysis.	LAUSD OEHS CEQA Specification Manual, Appendix F, Protocol For Shadow Analysis In CEQA Documents For Proposed School Sites. December 2005, Revised June 2007.	LAUSD OEHS	Signature Title: Date:
☒	SC-AE-6	Light and glare	Generate additional light and/or glare	During and after installation of lights (Construction)	**School Design Guide.** This document outlines requirements for lighting and measures to minimize glare for pedestrians, drivers and sports teams, and to avoid light spilling onto adjacent properties.	School Design Guide. Los Angeles Unified School District. Current Version.	Design Builder	Signature Title: Date:
☒	SC-AE-7	Light and glare	Generate additional light and/or glare	Prior to building occupation, first stadium	LAUSD shall reduce the lighting intensity from the new sources on adjacent residences to no more than two foot-candles, measured at the residential property	2004 New Construction Program EIR Mitigation Measure AE-1.2,	Design Builder	

Standard Conditions of Approval

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
				event, or first use of lights (Construction)	line. LAUSD shall utilize hoods, filtering louvers, glare shields, and/or landscaping as necessary to achieve the standard. The lamp enclosures and poles shall also be painted to reduce reflection. Following installation of lights the lighting contractor shall review and adjust lights to ensure the standard is met.	adopted by the Board of Education on June 2004.		Signature Title: Date:
☒	SC-AE-8	Light and glare	Generate additional light and/or glare	Prior to building occupation, first stadium event, or first use of lights (Construction)	Design site lighting and select lighting styles and technologies to have minimal impact off-site and minimal contribution to sky glow. Minimize outdoor lighting of architectural and landscape features and design interior lighting to minimize trespass outside from the interior. International Dark-Sky Association (IDA) and the Illuminating Engineering Society (IES) Model Lighting Ordinance (MLO) shall be used a guide for environmentally responsible outdoor lighting. The MLO outdoor lighting has outdoor lighting standards that reduce glare, light trespass, and skyglow. The Joint IDA-IESNA Model Outdoor Lighting Ordinance (MLO) uses lighting zones (LZ0-4) which allow the District to vary the stringency of lighting restrictions according to the sensitivity of the area as well as consideration for the community. The MLO also incorporates the Backlight-Uplight-Glare (BUG) rating system for luminaires, which provides more effective control of unwanted light. IDA-IESNA Model establishes standards to: • Limit the amount of light that can be used • Minimize glare by controlling the amount of light that tends to create glare • Minimize sky glow by controlling the amount of uplight • Minimize the amount of off-site impacts or light trespass	Based on The Collaborative for High Performance Schools. High Performance Schools Best Practices Manual, Volume III—Criteria. Version 1.0, November 1, 2001. Adopted by the Board of Education on October 28, 2003. Updated 2009 CHPS Scorecard with 2011 Amendments. SS5.1: Light Pollution Reduction. Includes additional language from International Dark-Sky Association (IDA).	Design Builder	Signature Title: Date:
AIR QUALITY								
☒	SC-AQ-1	Air Toxics Health Risk	Place new classrooms or outdoor play areas: - Within ¼-mile of mobile and stationary emission sources - Within 500 feet of a major transportation corridor (freeway, major rail line) - Within 500 feet of a major stationary source of emissions - On the LAUSD priority list of schools most at risk from air pollution - Near a high-risk facility previously identified by the OEHS.	Prior to project approval (Planning)	**OEHS CEQA Specification Manual, Appendix J, Air Toxics Health Risk Assessment (HRA).** This document includes guidance on HRA protocols for permitted, nonpermitted, and mobile sources that might reasonably be anticipated to emit hazardous air emissions and result in potential long-term and short-term health impacts to student and staff at the school site.	LAUSD OEHS CEQA Specification Manual, Appendix J, Air Toxics Health Risk Assessment (HRA). December 2005, Revised June 2007.	LAUSD OEHS	Signature Title: Date:

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
☒	SC-AQ-2	Construction Emissions	Requires the use of large construction equipment	During construction	LAUSD's construction contractor shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications, to ensure excessive emissions are not generated by unmaintained equipment.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	Design Builder	Signature Title: Date:
☒	SC-AQ-3	Construction Emissions	Requires a removal action for soil contamination	During construction	LAUSD's construction contractor shall: • Maintain slow speeds with all vehicles. • Load impacted soil directly into transportation trucks to minimize soil handling. • Water/mist soil as it is being excavated and loaded onto the transportation trucks. • Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site. • Minimize soil drop height into transportation trucks or stockpiles during dumping. • During transport, cover or enclose trucks transporting soils, increase freeboard requirements, and repair trucks exhibiting spillage due to leaks. • Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed. • Place stockpiled soil on polyethylene sheeting and cover with similar material. Place stockpiled soil in areas shielded from prevailing winds.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	Design Builder	Signature Title: Date:
☒	SC-AQ-4	Construction Emissions	Exterior construction and the use of large, heavy or noisy construction equipment	During planning and construction (Planning & Construction)	LAUSD shall prepare an air quality assessment: If site-specific review of a school construction project identifies potentially significant adverse regional and localized construction air quality impacts, then LAUSD shall implement all feasible measures to reduce air emissions below the South Coast Air Quality Management District's (SCAQMD) regional and localized significance thresholds. LAUSD shall mandate that construction bid contracts include the measures identified in the air quality assessment. Measures shall reduce construction emissions during high-emission construction phases from vehicles and other fuel driven construction engines, activities that generate fugitive dust, and surface coating operations. Specific air emission reduction measures include, but are not limited to, the following: <u>Exhaust Emissions</u> • Schedule construction activities that affect traffic flow to off-peak hours (e.g. between 10:00 AM and 3:00 PM). • Consolidate truck deliveries and/or limit the number of haul trips per day. • Route construction trucks off congested streets. • Employ high pressure fuel injection systems or engine timing retardation. • Utilize ultra-low sulfur diesel fuel, containing 15 ppm sulfur or less (ULSD) in all diesel construction equipment. • Use construction equipment rated by the United States Environmental Protection	2004 New Construction Program EIR Mitigation Measure AQ-2.1, adopted by the Board of Education on June 2004.	LAUSD OEHS and Design Builder	Signature Title: Date:

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					Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower. • Restrict non-essential diesel engine idle time, to not more than five consecutive minutes. • Utilize electrical power rather than internal combustion engine power generators as soon as feasible during construction. • Utilize electric or alternatively fueled equipment, if feasible. • Utilize construction equipment with the minimum practical engine size. • Utilize low-emission on-road construction fleet vehicles. • Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. <u>Fugitive Dust</u> • Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more). • Replace ground cover in disturbed areas as quickly as possible. • Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). • Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. • Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, and/or 150 daily trips for all vehicles. • Pave all construction access roads for at least 100 feet from the main road to the project site. • Water the disturbed areas of the active construction site at least three times per day, except during periods of rainfall. • Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications to exposed piles (i.e., gravel, dirt, and sand) with a five percent or greater silt content. • Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph). • Apply water at least three times daily, except during periods of rainfall, to all unpaved road surfaces. • Limit traffic speeds on unpaved road to 15 mph or less. • Prohibit high emission causing fugitive dust activities on days where violations of the ambient air quality standard have been forecast by SCAQMD. • Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.			

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					• Limit the amount of daily soil and/or demolition debris loaded and hauled per day. General Construction • Utilize ultra-low VOC or zero-VOC surface coatings. • Phase construction activities to minimize maximum daily emissions. • Configure construction parking to minimize traffic interference. • Provide temporary traffic control during construction activities to improve traffic flow (e.g., flag person). • Develop a trip reduction plan for construction employees. • Implement a shuttle service to and from retail services and food establishments during lunch hours. • Increase distance between emission sources to reduce near-field emission impacts. • Require construction contractors to document compliance with the identified mitigation measures.			
☒	SC-AQ-5	Air Pollutant Emissions	Increases student capacity and/or generates additional traffic	During school operation	LAUSD shall encourage ride-sharing programs for students and teachers as well as maintain fleet vehicles such as school buses, maintenance vehicles, and other service fleet vehicles in good condition in order to prevent significant increases in air pollutant emissions created by operation of a new school.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	LAUSD OEHS and School Administration	_____ Signature Title: Date:
BIOLOGICAL RESOURCES								
☐	SC-BIO-1	Sensitive Species and Habitat	May affect sensitive species and/or their habitat within or near a project site Alter surface drainage in a way that affects sensitive species and/or their habitat	As part of the site-specific CEQA review process; agency coordination prior to the start of construction; monitoring during construction	LAUSD qualified biologist shall identify sensitive species and their habitat within or near proposed project site. LAUSD will conduct a literature search, which shall consider a one-mile radius beyond the project construction site and shall be performed by a qualified biologist with knowledge of local biological conditions as well as the use and interpretation of the data sources identified below. Where appropriate, in the opinion of the biologist, the literature search shall be supplemented with a site visit and/or aerial photo analysis. Resources and information that shall be investigated for each site should include, but not be limited to: • USFWS • National Marine Fisheries Services (NMFS) • CDFW • California Native Plant Society (CNPS) • County and/or city planning or environmental offices for sensitive species, habitat, and/or heritage trees that may not exist on published databases. • CNDDB • CNPS Rare Plant Inventory	2004 New Construction Program EIR Mitigation Measures B-1.1 and B-1.2, adopted by the Board of Education on June 2004. Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.	LAUSD OEHS	_____ Signature Title: Date:

Standard Conditions of Approval

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					• Local Audubon Society • Los Angeles County Department of Regional Planning for information on Significant Ecological Areas • California Digital Conservation Atlas for district-wide location of reserves, plan areas, and land trusts that may overlap with project sites. <u>Biological Resources Report</u> If the LAUSD qualified biologist determines that a school construction project will affect an identified sensitive plant, animal, or habitat, a biological resources report shall be prepared. To provide a complete assessment of the flora and fauna within and adjacent to a site-specific project impact area, with particular emphasis on identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats, the biological resources report shall include the following. • Information on regional setting that is critical to the assessment of rare or unique resources • A thorough, recent floristic-based assessment of special status plans and natural communities, following the CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. CDFW recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the project site and neighboring vicinity. The *Manual of California Vegetation (Sawyer et al.)* should also be used to inform this mapping and assessment. Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect6 impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions. • A current inventory of the biological resources associated with each habitat type onsite and within the area of potential effect. CDFW's California Natural Diversity Data Base (CNDDB) should be contacted to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. • An inventory of rare, threatened, and endangered, and other sensitive species onsite and within the area of potential effect. Species to be addressed should include all those identified in CEQA Guidelines Section 15380, including sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at appropriate time of year and time of day when sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the CDFW and USFWS. • A discussion of the potential adverse impacts from light, noise, human activity, exotic species, and drainage. Drainage analysis should address project-related changes on drainage patterns on and downstream from the site; the volume, velocity, and frequency of existing and post- project surface flows; polluted runoff;			

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. • Discussions about direct and indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, wetland and riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas. • Mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Measures should emphasize avoidance and reduction of biological impacts. For unavoidable impacts, onsite habitat restoration or enhancement should be outlined. If onsite measures are not feasible or would not be biologically viable, offsite measures through habitat creation and/or acquisition and preservation in perpetuity should occur. This measure should address restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc. • Plans for restoration and vegetation shall be prepared by qualified biologist with expertise in southern California ecosystems and native plant vegetation techniques. Plans shall include, at a minimum: - location of the mitigation site - plant species to be used, container sizes, and seeding rates - schematic depicting the mitigation area - planting schedule - irrigation method - measures to control exotic vegetation - specific success criteria - detailed monitoring program - contingency measures should the success criteria not be met - identification of the party responsible for meeting the success criteria and providing for conservation of the site in perpetuity. LAUSD shall consult with the U.S. Army Corps of Engineers, USFWS and/or the CDFW and comply with any permit conditions or directives from those agencies regarding the protection, relocation, creation, and/or compensation.			
☒	SC-BIO-2	Light Impacts to Sensitive Species	New outdoor lighting that is near sensitive species habitat	During lighting installation and prior to first use of lights (Construction)	LAUSD shall protect sensitive species from harmful exposure to light by shielding light sources, redirecting light sources, or using low intensity lighting.	2004 New Construction Program EIR Mitigation Measure B-1.3, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature

Standard Conditions of Approval

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								Title: Date:
☒	SC-BIO-3	Bird and Bat Nesting Sites	Project site or construction staging are near and/or cause direct disturbances to native and nonnative vegetation, structures, and/or substrates during nesting season (February 1 through August 31; as early as January 1 for some raptors)	Prior to start of construction (Construction)	LAUSD shall comply with the following: • Project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates[1]) should occur outside of avian breading season to avoid take of birds or their eggs.[2] Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted. • If avoidance of the avian breeding season is not feasible, beginning 30 days prior to the initiation of the project activities, a qualified biologist with experience in conducting breeding bird surveys shall conduct weekly bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). The surveys shall continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of project activities. If a protected native bird is found, LAUSD shall delay all project activities within 300 feet of the suitable nesting habitat (within 500 feet for suitable raptor nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests), or as determined by a qualified biologist, shall be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, and/or construction fencing shall be used to demarcate the inside boundary of the 300- or 500-foot buffer between the project activities and the nest. Project personnel, including all contractors working on site, shall be instructed on the sensitivity of the area. LAUSD shall provide results of the recommended protective measures to document compliance with applicable State and Federal laws pertaining to the protection of native birds. • If the qualified biologist determines that a narrower buffer between the project activities and observed active nests is warranted, a written explanation as to why (e.g., species-specific information; ambient conditions and birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between the project activities and the nest and foraging areas) shall be submitted to LAUSD OEHS project manager. Construction contractors can then reduce the demarcated buffer. • No construction shall occur within the fenced next zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer by impacted the construction. • A biological monitor shall be present on site during all grubbing and clearing of	2004 New Construction Program EIR Mitigation Measure B-1.4, adopted by the Board of Education on June 2004. Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.	Design Builder	_____ Signature Title: Date:

[1] Substrate is the surface on which a plant or animal lives.
[2] Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill (Fish and Game Code Section 86), and includes take of eggs and/or young resulting from disturbances that cause abandonment of active nests.

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					vegetation to ensure that these activities remain outside the demarcated buffer and that the flagging, stakes, and/or construction fencing are maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to LAUSD OEHS project manager during the grubbing and clearing of vegetation, and shall notify LAUSD immediately if project activities damage avian nests.			
☐	SC-BIO-4	Native Oak Trees	Removal of any native mature oak trees or woodland habitat	During construction	LAUSD shall comply with the following: • Mitigation shall not include translocation of rare plants. CDFW, in most cases does not recommend translocation, salvage, and/or transplantation of rare, threatened, or endangered plant species, in particular oak trees, as compensation for adverse effects because successful implementation of translocation is rare. Even if translocation is initially successful, it will typically fail to persist over time. • **Permanent conservation of habitat.** To ensure the conservation of sensitive plant species, the preferred method is permanent conservation of habitat containing these species; any translocation proposed shall only be an experimental component of a larger, more robust plan. • **Off-site acquisition of woodland habitat.** Due to the inherent difficulty in creating functional woodland habitat with associated understory components, the preferred method is off-site acquisition of woodland habitat in the local area. All acquired habitat shall be protected under a conservation easement and deeded to a local land conservancy for management and protection. • **Creation of oak woodlands**. Any creation of functioning woodlands shall be of similar composition, structure, and function of the affected oak woodland. The new woodland shall mimic the function, demonstrate recruitment, plant density, and percent basil, canopy, and vegetation cover, as well as other measurable success criteria before the measure is deemed a success. - All seed and shrub sources used for tree and understory species in the new planting site shall be collected or grown from on-site sources or from adjacent areas and shall not be purchased from a supplier. This method should reduce the risk of introducing diseases and pathogens into areas where they might not currently exist. - Oaks should be replaced by planting acorns because this has been shown to result in greater oak survival. Monitoring efforts, including the exclusion of herbivores, shall be employed to maximize seedling survival during the monitoring period. - Monitoring period for oak woodland shall be at least 10 years with a minimum of seven years without supplemental irrigation. This allows the trees to go through one typical drought cycle. This should also be the minimal time needed to see signs of stress and disease and determine the need for replacement plantings. LAUSD shall request CDFW review and comment on any translocation plans, habitat preservation, habitat creation and/or restoration plans.	2004 New Construction Program EIR Mitigation Measure B-3.1, adopted by the Board of Education on June 2004. Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.	Design Builder	_____ Signature Title: Date:

Standard Conditions of Approval

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☐	SC-BIO-5	Wetlands, Riparian Habitat, and other Sensitive Natural Community	May affect wetlands, riparian habitat, and other sensitive natural community	As part of the site-specific CEQA review process; agency coordination prior to the start of construction; monitoring during and after construction	LAUSD shall comply with CDFW recommendations as listed below:[3] • Project development or conversion that results in a reduction of wetland acreage or wetland habitat values shall not occur unless, at a minimum, replacement or preservation results in "no net loss" of either wetland habitat values or acreage. • All wetlands and watercourses, whether intermittent or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. • A jurisdictional delineation of creeks and their associated riparian habitats shall be conducted as part of the biological resources report. The delineation should be conducted pursuant to the USFWS wetland definition. • Implementation of recommended measures shall compensate for affected mature riparian corridors and loss of function and value of wildlife corridors.	2004 New Construction Program EIR Mitigation Measures B-1.1 and B-1.2, adopted by the Board of Education on June 2004. Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.	LAUSD OEHS	_____ Signature Title: Date:
☒	MM-BIO-1	Nest Deterrents	Project may directly or indirectly impact nesting birds	During pre-construction and construction	To reduce impacts to nesting birds, avian management tactics include implementation of bird deterrent methods in active construction sites. Nest deterrents shall be installed and monitored under the guidance of a qualified biologist. Nest deterrents/methods will be implemented in all applicable situations to reduce the success of nest initiation within Project limits. In situations when deterrents fail, all feasible means will be used to allow the nest to remain without precluding construction. Nesting deterrents are intended for the prevention of nesting attempts. Devices are not approved to be installed or used once a nest has become active. Installation and maintenance of the deterrents by the qualified biologist will not represent a violation of the Migratory Bird Treaty Act (MBTA), California Fish and Game Code, California Endangered Species Act, Federal Endangered Species Act, or the Bald and Golden Eagle Protection Act permits, and regulations as long as such activities do not result in the take of an active nest.	Project-specific	LAUSD OEHS and construction contractor	_____ Signature Title: Date:
CULTURAL RESOURCES								
☐	SC-CUL-1	Treatment of Historical Resources	Project may directly or indirectly affect historical resources (i.e., buildings, structures, historic districts, and contributing site plan and landscaping features that are either designated or eligible for local, state, or federal landmark listing)	During project design, design development, pre-construction and construction (Planning & Construction)	**Design Team to Include Qualified Historic Architect** For campuses with qualifying historical resources under CEQA, the Design team shall include a qualified Historic Architect. The Historic Architect shall provide input to ensure ongoing compliance, as project plans progress, with the *Secretary of the Interior's Standards* and LAUSD requirements and guidelines for the treatment of historical resources (specific requirements follow in SC-CUL-2). For projects involving structural upgrades to historic resources, the Design team shall include a qualified Structural Engineer with a minimum of eight (8) years of demonstrated project-level experience in Historic Preservation.	Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. January 2015. LAUSD OEHS CEQA Specification Manual, Appendix H, Historical Resources Policy, (Appendix E.2) LAUSD Cultural Resource Assessment Procedures. December 2005, Revised June 2007.	Design Builder and Historic Architect	_____ Signature Title: Date:

[3] Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.

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					The Historic Architect/s shall meet the Secretary of the Interior's Professional Qualifications Standards and the standards described on page 8 of the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools*. The Historic Architect shall provide input throughout the design and construction process to ensure ongoing compliance with the above-mentioned standards.			
☐	SC-CUL-2	Treatment of Historical Resources	Project may directly or indirectly affect historical resources (i.e., buildings, structures, historic districts, and contributing site plan and landscaping features that are either designated or eligible for local, state, or federal landmark listing)	During project design, design development, pre-construction and construction (Planning & Construction)	**Role of Historic Architect on Design Team** The tasks of the Historic Architect on the Design team shall include (but not necessarily be limited to) the following: 1. The Historic Architect shall work with the Design team and LAUSD to ensure that project components, including new construction and modernization of existing facilities, continue to comply with applicable historic preservation standards, including the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and *LAUSD Design Guidelines and Treatment Approaches for Historic Schools*. The Historic Architect shall work with the Design team throughout the design process to develop project options that facilitate compliance with the applicable historic preservation standards. 2. For new construction, the Historic Architect shall work with the Design team and LAUSD to identify options and opportunities for (1) ensuring compatibility of scale and character for new construction, site and landscape features, and circulation corridors, and (2) ensuring that new construction is designed and sited in such a way that reinforces and strengthens, as much as feasible, character-defining site plan features, landscaping, and circulation corridors throughout campus. 3. For modernization and upgrade projects involving contributing (significant) buildings or features, the Historic Architect shall work with the Design team and LAUSD to ensure that specifications for design and implementation of projects comply with the applicable historic preservation standards. 4. The Historic Architect shall participate in design team meetings through all phases of the project through 100 percent construction drawings, pre-construction, and construction phases. 5. The Historic Architect shall produce brief memos, at the 50 percent and 100 percent construction drawings stages, demonstrating how principal project components and treatment approaches comply with applicable historic preservation standards, including the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and *LAUSD Design Guidelines and Treatment Approaches for Historic Schools*. The memos will be reviewed by LAUSD. 6. The Historic Architect shall participate in pre-construction and construction monitoring activities to ensure continuing conformance with Secretary's	School Design Guide. Los Angeles Unified School District. Current Version. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. January 2015.	Historic Architect	_____ Signature Title: Date:

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					Standards and/or avoidance of a material impairment of the historical resources. 7. The Historic Architect shall provide specialized Construction Specifications Institute (CSI) specifications for architectural features or materials requiring restoration, removal, or on-site storage. This shall include detailed instructions on maintaining and protecting in place relevant features. 8. The Design team and Historic Architect shall be responsible for incorporating LAUSD's recommended updates and revisions during the design development and review process.			
☐	SC-CUL-3	Treatment of Historical Resources	Project may directly or indirectly affect historical resources (i.e., buildings, structures, historic districts, and contributing site plan and landscaping features that are either designated or eligible for local, state, or federal landmark listing)	During project design, design development, pre-construction and construction (Planning & Construction)	**School Design Guide and LAUSD Design Guidelines and Treatment Approaches for Historic Schools** LAUSD has adopted policies and guidelines that apply to projects involving historic resources. The Design-Builder and Historic Architect shall apply these guidelines, which include the *LAUSD School Design Guide* and *LAUSD Design Guidelines and Treatment Approaches for Historic Schools* and the *Secretary's Standards* for all new construction and upgrade/modernization projects. In keeping with the district's adopted policies and goals, LAUSD shall re-use rather than destroy historical resources where feasible. LAUSD shall follow the guidelines outlined in these documents to the maximum extent practicable when planning and implementing projects and adjacent new construction involving historical resources. General guidelines shall include: • Retain and preserve the historic character of buildings, structures, landscapes, and site features that are historically significant. • Repair rather than remove, replace, or destroy character-defining features; if replacement is necessary, replace in-kind to match in materials and appearance. • Avoid removing, obscuring, or destroying character-defining features and materials. • Treat distinctive architectural features or examples of skilled craftsmanship that characterize a building with sensitivity. • Conceal reinforcement required for structural stability or the installation of life	School Design Guide. Los Angeles Unified School District. Current Version. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. January 2015.	Design Builder and Historic Architect	_____ Signature Title: Date:

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					safety or mechanical systems. • Undertake surface cleaning, preparation of surfaces, and other projects involving character-defining features using the least invasive, gentlest means possible. Avoid sandblasting and chemical treatments.			
☐	SC-CUL-4	Historical Resource Document	Demolition or potential damage to any recognized historic resources or any contributors to a historic district	Prior to demolition or major alteration (Planning & Construction)	Prior to demolition or mothballing activities, LAUSD shall retain a professional architectural photographer and a historian or architectural historian who meets the Secretary of the Interior's Professional Qualifications Standards to prepare HABS-like documentation for the historical resources slated for demolition. The HABS-like package will document in photographs and descriptive and historic narrative the historical resources slated for demolition. Documentation prepared for the package will draw upon primary- and secondary-source research and available studies previously prepared for the project. Measured drawings shall not be required for the project. The specifications for the HABS-like package follow: **Photographs:** Photographic documentation will focus on the historical resources/features slated for demolition, with overview and context photographs for the campus and adjacent setting. Photographs will be taken of interior and exterior features of the buildings using a professional-quality single lens reflex (SLR) digital camera with a minimum resolution of 10 megapixels. Photographs will include context views, elevations/exteriors, architectural details, overall interiors, and interior details (if warranted). Digital photographs will be printed in black and white on archival film paper and also provided in electronic format. **Descriptive and Historic Narrative:** The historian or architectural historian will prepare descriptive and historic narrative of the historical resources/features slated for demolition. Physical descriptions will detail each resource, elevation by elevation, with accompanying photographs, and information on how the resource fits within the broader campus during its period of significance. The historic narrative will include available information on the campus design, history, architect/contractor/designer as appropriate, area history, and historic context. In addition, the narrative will include a methodology section specifying the name of researcher, date of research, and sources/archives visited, as well as a bibliography. Within the written history, statements shall be footnoted as to their sources, where appropriate. **Historic Documentation Package Submittal:** The draft package will be assembled by the historian or architectural historian and submitted to LAUSD for review and comment. After final approval, one hard-copy set of the package will be prepared as follows: Photographs will be individually labeled and stored in individual acid-free sleeves. The remaining components of the historic documentation package (site map, photo index, historic narrative, and additional data) will be printed on archival bond,	2004 New Construction Program EIR Mitigation Measure C-1.5, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:

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					acid-free paper. Upon completion of the descriptive and historic narrative, all materials will be compiled in electronic format and presented to LAUSD for review and approval. Upon approval, one hard-copy version of the historic documentation package will be prepared and submitted to LAUSD. The historian or architectural historian shall offer a hardcopy package and compiled, electronic version of the final package to the Los Angeles Public Library (Central Library), Los Angeles Historical Society, and the South Central Coastal Information Center, to make available to researchers.			
☒	SC-CUL-5	Historical Resource Reuse	Demolition of any of the recognized historic structures	Prior to demolition or alteration (Construction)	LAUSD, consistent with Education Code Section 17540, shall offer to sell any useful features of the school building (e.g., the school bell, chalkboards, lockers) that do not contain hazardous materials for use or display, if features are not retained by LAUSD for reuse or display.	none	Design Builder	_____ Signature Title: Date:
☒	SC-CUL-6	Historical Resource Reuse	Demolition of any of the recognized historic structures	Prior to demolition or alteration (Construction)	LAUSD, consistent with Education Code Section 17545, shall offer for sale any remaining functional and defining features and building materials from the buildings. These materials could include doors, windows, siding, stones, lighting, doorknobs, hinges, cabinets, and appliances, among others. They shall be made available to the public for sale and reuse, if features are not retained by LAUSD for reuse or display.	none	Design Builder	_____ Signature Title: Date:
☒	SC-CUL-7	Archaeological Resource	Project area is deemed highly sensitive for archaeological resources	Prior to and during grading, excavation, or other ground-disturbing activities (Construction)	LAUSD shall retain a qualified archaeologist to be available on-call. The qualified archaeologist shall meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738–39).	none	Design Builder	_____ Signature Title: Date:
☒	SC-CUL-8	Historic and Archaeological Resource	Historical or unique archaeological resources are discovered during construction activities	During grading, excavation, or other ground-disturbing activities (Construction)	The contractor shall halt construction activities in the immediate area and notify the LAUSD. LAUSD shall retain a qualified archeologist to make an immediate evaluation of significance and appropriate treatment of the resource. To complete this assessment, the qualified archeologist will be afforded the necessary time to recover, analyze, and curate the find. The qualified archeologist shall recommend the extent of archeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place.	2004 New Construction Program EIR Mitigation Measure C-1.7, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:
☒	SC-CUL-9	Archaeological Resource Monitoring Program	Phase I Archaeological Site Investigation shows a strong possibility that unique resources,	Prior to the start of construction	LAUSD shall implement an archaeological monitoring program for construction activities at a site prepared by a qualified archaeologist under the following conditions: (1) when a Phase I Site Investigation shows a strong possibility that unique archeological resources are buried on the site; and/or (2) when unique	2004 New Construction Program EIR Mitigation Measure C-1.8, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:

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			and/or unique architectural resources have been identified on a site		archaeological resources have been identified on a site, but LAUSD does not implement a Phase III Data Recovery/Mitigation Program because the resources can be recovered through the archaeological monitoring program.			
☒	SC-CUL-10	Archaeological Resource	Evidence of prehistoric or historic cultural resources is uncovered	During grading, excavation, or other ground-disturbing activities (Construction)	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist. The qualified archaeologist shall assess the find(s) and, if it is determined to be of value, shall draft a monitoring program and oversee the remainder of the grading program. Should evidence of prehistoric or historic cultural resources be found the archaeologist shall monitor all ground-disturbing activities related to the proposed project. Any significant archaeological resources found shall be preserved as determined necessary by the archaeologist and offered to a local museum or repository willing to accept the resource. Any resulting reports shall also be forwarded to the South Central Coastal Information Center at the California State University, Fullerton.	none	Design Builder	Signature Title: Date:
☒	SC-CUL-11	Archaeological Resource	Project construction requires archaeological monitoring	Prior to the start grading, excavation, or other ground-disturbing activities (Construction)	Cultural resources sensitivity training shall be conducted by a qualified archaeologist for all construction workers involved in moving soil or working near soil disturbance. This training shall review the types of archaeological resources that might be found, along with laws for the protection of resources.	none	Design Builder	Signature Title: Date:
☒	SC-CUL-12	Archaeological Resource	Unique archaeological resources are discovered and LAUSD determines not to avoid them by abandoning the site or redesigning the project	During grading, excavation, or other ground-disturbing activities (Construction)	LAUSD shall determine whether it is feasible to prepare and implement a Phase III Data Recovery/Mitigation Program. A Phase III Data Recovery/Mitigation Program would be designed by a Qualified Archaeologist to recover a statistically valid sample of the archaeological remains and to document the site to a level where the impacts can be determined to be less than significant. All documentation shall be prepared in the standard format of the ARMR Guidelines, as prepared by the OHP. Once a Phase III Data Recovery/Mitigation Program is completed, an archaeological monitor shall be present on site to oversee the grading, demolition activities, and/or initial construction activities to ensure that construction proceeds in accordance with the adopted Phase III Data Recovery/Mitigation Program. The extent of the Phase III Data Recovery/Mitigation Program and the extent and duration of the archaeological monitoring program depend on site-specific factors.	2004 New Construction Program EIR Mitigation Measure C-1.9, adopted by the Board of Education on June 2004.	Design Builder	Signature Title: Date:
☒	SC-CUL-13	Native American Resource	Evidence of Native American resources is uncovered	During grading, excavation, or other ground-disturbing activities (Construction)	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.	none	Design Builder	Signature Title: Date:
☒	SC-CUL-14	Paleontological Resource	Cultural Resources Assessment identifies a project area as sensitive for paleontological resources	During grading, excavation, or other ground-disturbing activities (Construction)	LAUSD shall have a paleontological monitor on-call during construction activities. This monitor shall provide the construction crew(s) with a brief summary of the sensitivity, the rationale behind the need for protection of these resources, and information on the initial identification of paleontological resources. If paleontological resources are uncovered during construction, the on-call paleontologist shall be notified and afforded the necessary	2004 New Construction Program EIR Mitigation Measure C-1.10, adopted by the Board of Education on June 2004.	Design Builder	Signature Title: Date:

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					time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain on site for the duration of the ground disturbances to ensure the protection of any other resources that may be in the area.			
☒	SC-CUL-15	Paleontological Resource	Project area is deemed highly sensitive for paleontological resources	During grading, excavation, or other ground-disturbing activities	The paleontological monitor shall be on site for all ground altering activities and shall advise LAUSD as to necessary means of protecting potentially significant paleontological resources, including, but not limited to, possible cessation of construction activities in the immediate area of a find. If resources are identified during the monitoring program, the paleontologist shall be afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain on site for the duration of the ground disturbances to insure the protection of any other resources that may be in the area.	2004 New Construction Program EIR Mitigation Measure C-1.11, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:
GEOLOGY and SOILS								
☒	SC-GEO-1	Seismic Hazards	Requires grading, excavation, or other ground-disturbing activities	During project design, and project construction (Planning & Construction)	**OEHS CEQA Specification Manual, Appendix G, Supplemental Geohazard Assessment Scope of Work.** This document outlines the procedures and scope for LAUSD geohazard assessments.	LAUSD OEHS CEQA Specification Manual, Appendix G, Supplemental Geohazard Assessment Scope of Work. December 2005, Revised June 2007.	Design Builder	_____ Signature Title: Date:
GREENHOUSE GAS EMISSIONS								
☒	SC-GHG-1	Water Use and Efficiency	Requires work on water pumps, valves, piping, and/or tanks	During school operation (Post-Construction)	During school operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping, and tanks to minimize water loss.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR	LAUSD M&O	_____ Signature Title: Date:
☒	SC-GHG-2	Water Use and Efficiency	Requires work on landscape irrigation system	Prior to full operation of irrigation system (Post-Construction)	LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the early morning hours to reduce water loss from evaporation.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR	LAUSD M&O	_____ Signature Title: Date:
☒	SC-GHG-3	Water Use and Efficiency	Requires work on landscape irrigation system	Prior to full operation of irrigation system (Post-Construction)	LAUSD shall reset automatic sprinkler timers to water less during cooler months and rainy season.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR	LAUSD M&O	_____ Signature Title: Date:
☒	SC-GHG-4	Water Use and Efficiency	Requires work on landscape and/or irrigation system	Prior to full operation of irrigation system (Construction)	LAUSD shall develop a water budget for landscape (both non-recreational and recreational) and ornamental water use to conform to the local water efficient landscape ordinance. If no local ordinance is applicable, then use the landscape and ornamental budget outlined by the California Department of Water Resources.	The Collaborative for High Performance Schools. High Performance Schools Best Practices Manual, Volume III--- Criteria. Version 1.0, November 1, 2001. Adopted by the Board of Education on October 28, 2003. Updated 2009 CHPS Scorecard with 2011 Amendments.	LAUSD M&O	_____ Signature Title: Date:

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						Prerequisite. Construction Waste Management. WE1.0C.P1 and LAUSD 2014 School Design Guide.		
☒	SC-GHG-5	Energy Efficiency	Building construction	Prior to occupancy (Planning & Construction)	LAUSD shall ensure that the time dependent valued energy of the proposed project design is at least 10 percent, with a goal of 20 percent less than a standard design that is in minimum compliance with the California Title 24, Part 6 energy efficiency standards that are in force at the time the project is submitted to the Division of the State Architect.	The Collaborative for High Performance Schools. High Performance Schools Best Practices Manual, Volume III—Criteria. Version 1.0, November 1, 2001. Adopted by the Board of Education on October 28, 2003. Updated 2009 CHPS Scorecard with 2011 Amendments. Prerequisite. Energy Efficiency. EE1.0C.P1 and LAUSD 2014 School Design Guide.	Design Builder and LAUSD FSD and M&O	_____ Signature Title: Date:
HAZARDS and HAZARDOUS MATERIALS								
☐	SC-HAZ-1	Electro-magnetic fields	Place new classrooms or outdoor play areas near power lines or cell towers	Prior to project approval	**OEHS CEQA Specification Manual, Appendix M, Criteria for School Siting in Proximity to High Voltage Power Lines.** Board of Education resolutions (Effects of Non-Ionizing Radiation-2000, Wireless Telecommunication Installations-2009 and T-Mobile Cell Tower Notification and Condemnation-2009) regarding electromagnetic field (EMF) and radiofrequency exposures associated with cellular towers near schools whereby a prohibition exists regarding siting towers on school campuses.	LAUSD OEHS CEQA Specification Manual, Appendix M, Criteria for School Siting in Proximity to High Voltage Power Lines. December 2005, Revised June 2007. Board of Education resolutions: • Effects of Non-Ionizing Radiation-2000 • Wireless Telecommunication Installations-2009 • T-Mobile Cell Tower Notification and Condemnation-2009	LAUSD OEHS and FSD	_____ Signature Title: Date:
☐	SC-HAZ-2	Pipeline Hazards	Place new classrooms or outdoor play areas near hazardous pipelines	Prior to project approval	**OEHS CEQA Specification Manual, Appendix L, Pipeline Safety Hazard Analysis.** This document outlines the process for evaluating safety hazards associated with underground and above-ground natural gas and hazardous liquid pipelines. The pipeline safety hazard assessment (PSHA) process determines whether potential releases of natural gas, petroleum product and crude oil from pipelines located near a school site pose a safety risk to students and staff.	LAUSD OEHS CEQA Specification Manual, Appendix L, Pipeline Safety Hazard Analysis. December 2005, Revised June 2007.	LAUSD OEHS	_____ Signature Title: Date:
☐	SC-HAZ-3	Rail Hazards	Place new classrooms or outdoor play areas within 1,500 feet of a	Prior to project approval	**OEHS CEQA Specification Manual, Appendix K, Rail Safety Study Protocol.** This document provides a guidance protocol for conducting a Rail Safety Study (RSS). It is designed to assist in evaluating whether traffic on rail lines within a 1,500-	LAUSD OEHS CEQA Specification Manual, Appendix K, Rail Safety Study. December 2005, Revised	LAUSD OEHS	_____

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			railroad track easement		foot radius of a school site poses an unreasonable safety hazard to students and staff at the school.	June 2007.		Signature Title: Date:
HYDROLOGY and WATER QUALITY								
☒	SC-HWQ-1	Storm Water Requirements	Land disturbance	During construction (Construction)	**Stormwater Technical Manual** This manual establishes design requirements and provides guidance for the cost-effective improvement of water quality in new and significantly redeveloped LAUSD school sites. These guidelines are intended to improve water quality and mitigate potential impacts to the Maximum Extent Practicable (MEP). While these guidelines meet current post-construction Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. The guidelines address the mandated post-construction element of the NPDES program requirements.	Stormwater Technical Manual. Prepared for LAUSD by Geosyntec Consultants. October 2009.	Design Builder	_____ Signature Title: Date:
☒	SC-HWQ-2	Storm Water Requirements	Land disturbance	During construction (Construction)	**Compliance Checklist for Storm Water Requirements at Construction Sites.** This checklist has requirements for compliance with the General Construction Activity Permit and is used by OEHS to evaluate permit compliance. Requirements listed include a SWPPP; BMPs for minimizing storm water pollution to be specified in a SWPPP; and monitoring storm water discharges to ensure that sedimentation of downstream waters remains within regulatory limits.	OEHS Compliance Checklist for Storm Water Requirements at Construction Sites. No Date.	Design Builder	_____ Signature Title: Date:
☒	SC-HWQ-3	Miscellaneous Requirements	Ongoing maintenance and repair	During construction and operation (Construction & Post-Construction)	LAUSD shall implement the following programs and procedures, as applicable: • Environmental Training Curriculum • Hazardous Waste Management Program • Medical Waste Management Program • Environmental Compliance Inspections • Safe School Inspections • Integrated Pest Management Program • Fats Oil and Grease Management Program Solid Waste Management Program	• Environmental Training Curriculum • Hazardous Waste Management Program • Medical Waste Management Program • Environmental Compliance Inspections • Safe School Inspections • Integrated Pest Management Program • Fats Oil and Grease Management Program • Solid Waste Management Program	Design Builder	_____ Signature Title: Date:
☐	SC-HWQ-4	Flood Hazards	Site acquisition	During project design (Planning)	The analysis for new projects shall include evaluation of all possible flood hazards as determined by: (1) review of FEMA flood maps; (2) review of flood information provided by local city or county floodplain managers; (3) review of California Department of Water Resources dam safety information; and, (4) local drainage analysis by a civil engineer. The flood hazard determination shall include consideration of tsunamis and debris flow. New projects should be located outside of these hazard areas, if practical.	2004 New Construction Program EIR Mitigation Measure HWQ-5.1, adopted by the Board of Education on June 2004.	LAUSD OEHS	_____ Signature Title: Date:

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☐	SC-HWQ-5	Flood Hazards	Site acquisition	During project design	Where placing the project outside the floodplain is impractical, the school or project structure shall be protected from flooding by containment and control of flood flows (e.g., elevating lowest floors at least one foot above the expected 100-year flood level).	2004 New Construction Program EIR Mitigation Measures, adopted by the Board of Education on June 2004. HWQ-5.2	LAUSD OEHS and FSD	Signature Title: Date:
☐	SC-HWQ-6	Tsunami Hazards	Place new classrooms or outdoor play areas within 0.62 mile of the coast, and less than 100 feet above mean sea level	Prior to classroom occupation	LAUSD shall evaluate tsunami hazards to determine if the project site is within a tsunami inundation zone as delineated by CalEMA or NOAA. If the project site is within a tsunami hazard zone LAUSD shall prepare and implement a tsunami awareness program and evacuation plan. This plan shall comply with the provisions of the LAUSD Emergency Operations Plan.	2004 New Construction Program EIR Mitigation Measure HWQ-5.3, adopted by the Board of Education on June 2004.	LAUSD OEHS and FSD	Signature Title: Date:
☐	SC-HWQ-7	Debris Flow	Place new classrooms or outdoor play areas in areas subject to potentially damaging debris flow	During project design	LAUSD shall consult with the Los Angeles County Department of Public Works, and/or local city officials, as appropriate, regarding the debris flow potential near the mouth of or in natural canyons and feasible mitigation measures shall be developed to reduce any potential risk. Potential debris flow hazards shall be reduced by one or more of the following: adequate building setbacks from natural slopes, construction of debris control facilities in upstream areas, monitoring and maintaining potential debris flow areas and basins. In addition, potential loss shall be minimized by establishing an evacuation plan, and elevated awareness and early warning of pending events.	2004 New Construction Program EIR Mitigation Measure HWQ-5.4, adopted by the Board of Education on June 2004.	LAUSD OEHS and FSD	Signature Title: Date:
NOISE								
☐	SC-N-1	Exterior Campus Noise	Exterior noise levels are or would be greater than 70 dBA L_{10} or 67 dBA L_{eq}	During project design	LAUSD shall include features such as sound walls, building configuration, and other design features in order to attenuate exterior noise levels on a school campus to less than 70 dBA L_{10} or 67 dBA L_{eq}.	2004 New Construction Program EIR Mitigation Measure N-1.1, adopted by the Board of Education on June 2004.	LAUSD OEHS and FSD and Design Builder	Signature Title: Date:
☒	SC-N-2	Interior Classroom Noise	Interior classroom noise levels would be greater than 55 dBA L_{10} or 45 dBA L_{eq}	During project design	LAUSD shall analyze the acoustical environment of the site (such as traffic) and the characteristics of planned building components (such as heating, ventilation, and air conditioning [HVAC]), and design to achieve interior classroom noise levels of less than 55 dBA L_{10} or 45 dBA L_{eq} with maximum (unoccupied) reverberation times of 0.6 seconds. Noise reduction methods shall include, but are not limited to, sound walls, building and/or classroom insulation, HVAC modifications, double-paned windows, and other design features in order to achieve the noise standards. • The District should acknowledge the ANSI (American National Standards Institute) S12 standard as a District goal that may presently not be achievable in all cases. • Where economically feasible, new school design should achieve classroom acoustical quality consistent with the ANSI standard and in no event exceed the current CHPS (California High Performance Schools) standard of 45 dBA. • Where economically feasible, new HVAC (Heating, Ventilating, and Air Conditioning) installations should be designed to achieve the lowest possible noise level consistent with the ANSI standard. In no event should these installations	2004 New Construction Program EIR Mitigation Measure N-1.2, adopted by the Board of Education on June 2004.	LAUSD OEHS and FSD and Design Builder	Signature Title: Date:

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					exceed the current CHPS standard of 45 dBA. • To promote the development of lower noise emitting HVAC units, the District's purchase of new units should give preference to manufacturers producing the lowest noise level at the lowest cost. • Existing HVAC units operating in excess of 50 dBA should be modified.			
☒	SC-N-3	Traffic Noise	Project-related traffic noise level exceeds local noise standards, policies, or ordinances	Prior to project approval	LAUSD shall require an acoustical analysis to identify feasible measures to reduce traffic noise increases to 3 dBA CNEL or less at the noise-sensitive land use. LAUSD shall implement recommended measures to reduce noise.	2004 New Construction Program EIR Mitigation Measure N-2.1, adopted by the Board of Education on June 2004.	LAUSD OEHS	_____ Signature Title: Date:
☒	SC-N-4	Operational Noise	Operational noise levels exceeds local noise standards, policies, or ordinances at noise-sensitive land uses	During project design and construction	LAUSD shall incorporate long-term permanent noise attenuation measures between playgrounds, stadiums, and other noise-generating facilities and noise-sensitive land uses, to reduce noise levels to meet jurisdictional standards or an increase of 3 dB or less over ambient. Operational noise attenuation measures include, but are not limited to: • buffer zones • berms • sound barriers: – buildings – masonry walls – enclosed bleacher foot wells – other site-specific project design features.	2004 New Construction Program EIR Mitigation Measure N-2.2, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:
☒	SC-N-5	Construction Noise and Vibration (Annoyance)	Construction on an existing school campus	Prior to construction	LAUSD Facilities Division or its construction contractor shall consult and coordinate with the school principal or site administrator, and other nearby noise sensitive land uses prior to construction to schedule high noise or vibration producing activities to minimize disruption. Coordination between the school, nearby land uses and the construction contractor shall continue on an as-needed basis throughout the construction phase of the project to reduce school and other noise sensitive land use disruptions.	2004 New Construction Program EIR Mitigation Measure N-3.1, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:
☒	SC-N-6	Vibration (Structural Damage)	Rock blasting or demolition activities	During construction	The LAUSD shall require the construction contractor to minimize blasting for all construction and demolition activities, where feasible. If demolition is necessary adjacent to residential uses or fragile structures, the LAUSD shall require the construction contractor to avoid using impact tools. Alternatives that shall be considered include mechanical methods using hydraulic crushers or deconstruction techniques.	2004 New Construction Program EIR Mitigation Measure N-5.1, adopted by the Board of Education on June 2004.	Design Builder	_____ Signature Title: Date:
☒	SC-N-7	Vibration (Structural Damage)	Pile driving or heavy vibration activities	During construction (Construction)	For projects where pile driving activities are required within 150 feet of a structure, a detailed vibration assessment shall be provided by an acoustical engineer to analyze potential impacts related to vibration to nearby structures and to determine feasible mitigation measures to eliminate potential risk of architectural damage.	none		_____ Signature Title: Date:

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
☒	SC-N-8	Vibration (Structural Damage)	Vibration intensive activities are planned within 25 feet of a historic building or structure	Prior to and during demolition and construction (Construction)	LAUSD shall meet with the construction contractor to discuss alternative methods of demolition and construction for activities within 25 feet of a historic building to reduce vibration impacts. During the preconstruction meeting, the construction contractor shall identify demolition methods not involving vibration-intensive construction equipment or activities. For example: sawing into sections that can be loaded onto trucks results in lower vibration levels than demolition by hydraulic hammers. • Prior to construction activities, the construction contractor shall inspect and report on the current foundation and structural condition of the historic building. • The construction contractor shall implement alternative methods identified in the preconstruction meeting during demolition, excavation, and construction for work done within 25 feet of the historic building. • The construction contractor shall avoid use of vibratory rollers and packers adjacent to a historic building. • During demolition the construction contractor shall not phase any ground-impacting operations near a historic building to occur at the same time as any ground impacting operation associated with demolition and construction of a new building. During demolition and construction, if any vibration levels cause cosmetic or structural damage to a historic building the District shall issue "stop-work" orders to the construction contractor immediately to prevent further damage. Work shall not restart until the building is stabilized and/or preventive measures to relieve further damage to the building are implemented.	none	Design Builder	Signature Title: Date:
☒	SC-N-9	Construction Noise	Exterior construction and the use of large, heavy or noisy construction equipment	During construction (Construction)	LAUSD shall prepare a noise assessment. If site-specific review of a school construction project identifies potentially significant adverse construction noise impacts, then LAUSD shall implement all feasible measures to reduce below applicable noise ordinances. Exterior construction noise levels exceed local noise standards, policies, or ordinances at noise-sensitive receptors. LAUSD shall mandate that construction bid contracts include the measures identified in the noise assessment. Specific noise reduction measures include, but are not limited to, the following: <u>Source Controls</u> • Time Constraints – prohibiting work during sensitive nighttime hours • Scheduling – performing noisy work during less sensitive time periods (on operating campus: delay the loudest noise generation until class instruction at the nearest classrooms has ended; residential: only between 7:00 AM and 7:00 PM) • Equipment Restrictions – restricting the type of equipment used • Noise Restrictions – specifying stringent noise limits • Substitute Methods – using quieter methods and/or equipment • Exhaust Mufflers – ensuring equipment have quality mufflers installed • Lubrication & Maintenance – well maintained equipment is quieter • Reduced Power Operation – use only necessary size and power	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	Design Builder	Signature Title: Date:

Standard Conditions of Approval

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					• Limit Equipment On-Site – only have necessary equipment on-site • Noise Compliance Monitoring – technician on site to ensure compliance • Quieter Backup Alarms – manually-adjustable or ambient sensitive types Path Controls • Noise Barriers – semi-permanent or portable wooden or concrete barriers • Noise Curtains – flexible intervening curtain systems hung from supports • Enclosures – encasing localized and stationary noise sources • Increased Distance – perform noisy activities farther away from receptors, including operation of portable equipment, storage and maintenance of equipment Receptor Controls • Window Treatments – reinforcing the building's noise reduction ability • Community Participation – open dialog to involve affected residents • Noise Complaint Process – ability to log and respond to noise complaints. Advance notice of the start of construction shall be delivered to all noise sensitive receptors adjacent to the project area. The notice shall state specifically where and when construction activities will occur, and provide contact information for filing noise complaints with the contractor and the District. In the event of noise complaints the LAUSD shall monitor noise from the construction activity to ensure that construction noise does not exceed limits specified in the noise ordinance. • Temporary Relocation – in extreme otherwise unmitigatable cases. Temporarily move residents or students to facilities away from the construction activity.			
PEDESTRIAN SAFETY								
☐	SC-PED-1	Pedestrian Safety Analysis	Increase student capacity by more than 25% or 10 classrooms	During project design	**Caltrans SRTS program.** LAUSD is a participant in the SRTS program administered by Caltrans and local law enforcement and transportation agencies. OEHS provides pedestrian safety evaluations as a component of traffic studies conducted for new school projects. This pedestrian safety evaluation includes a determination of whether adequate walkways and sidewalks are provided along the perimeter of, across from, and adjacent to a proposed school site and along the paths of identified pedestrian routes within a 0.25-mile radius of a proposed school site. The purpose of this review is to ensure that pedestrians are adequately separated from vehicular traffic.	OEHS pedestrian safety evaluation	LAUSD OEHS	_____ Signature Title: Date:
☐	SC-PED-2	Pedestrian Safety Analysis	Increase student capacity by more than 25% or 10 classrooms	During project design	**OEHS CEQA Specification Manual, Appendix C, Traffic and Pedestrian Safety Requirements** LAUSD has developed these performance guidelines to minimize potential pedestrian safety risks to students, faculty and staff, and visitors at LAUSD schools. The performance guidelines include the requirements for: student drop-off areas, vehicle access, and pedestrian routes to school. Appendix C states school traffic studies shall identify measures to ensure separation between pedestrians and vehicles along potential pedestrian routes, such as sidewalks, crosswalks, bike paths, crossing guards, pedestrian and traffic signals, stop signs, warning signs, and other pedestrian	LAUSD OEHS CEQA Specification Manual, Appendix C, Traffic and Pedestrian Safety Requirements for New Schools. December 2005, Revised June 2007.	LAUSD OEHS	_____ Signature Title: Date:

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					access measures.			
☐	SC-PED-3	Pedestrian Safety Analysis	Increase student capacity by more than 25% or 10 classrooms	During project design	**OEHS CEQA Specification Manual, Appendix D, Sidewalk Requirements for New Schools** LAUSD shall coordinate with the responsible traffic jurisdiction/agency to ensure these areas are improved prior to the opening of a school. Improvements shall include, but are not limited to: • Clearly designate passenger loading areas with the use of signage, painted curbs, etc. • Install new walkway and/or sidewalk segments where none exist. • Any substandard walkway/sidewalk segments shall be improved to a minimum of eight feet wide. • Provide other alternative measures that separate foot traffic from vehicular traffic, such as distinct travel pathways or barricades.	LAUSD OEHS CEQA Specification Manual, Appendix D, Sidewalk Requirements for New Schools. December 2005, Revised June 2007.	LAUSD OEHS	Signature Title: Date:
☐	SC-PED-4	Pedestrian Safety Analysis	Increase student capacity by more than 25% or 10 classrooms	Prior to project approval	**School Traffic Safety Reference Guide REF- 4492.1.** This Reference Guide replaces Reference Guide 4492.0, School Traffic Safety, September 30, 2008. Updated information is provided, including new guidance on passenger loading zones and the Safety Valet Program. Guide sets forth requirements for traffic and pedestrian safety, and procedures for school principals to request assistance from OEHS, the Los Angeles Schools Police Department (LASPD), or the local police department regarding traffic and pedestrian safety. Distribution and posting of the Back to School Safety Tips flyer is required. This guide also includes procedures for traffic surveys, parking restrictions, crosswalks, advance warning signs (school zone), school parking signage, traffic controls, crossing guards, or for determinations on whether vehicle enforcement is required to ensure the safety of students and staff.	LAUSD Traffic Safety Reference Guide. REF-4492.1. July 23, 2012	LAUSD OEHS	Signature Title: Date:
☒	SC-PED-5	Safe Access to School	Construct bus loading area, student drop-off/pick-up area and/or parking	During project design (Planning)	**School Design Guide.** The Guide states student drop-off and pick-up, bus loading areas, and parking areas shall be separated to allow students to enter and exit the school grounds safely.	LAUSD School Design Guide. Los Angeles Unified School District. Current Version.	Design Builder	Signature Title: Date:
POPULATION and HOUSING								
☐	SC-PH-1	Property Displacement	Residential or business property acquisition	Prior to construction	**Relocation Assistance Advisory Program** LAUSD shall conform to all residential and business displacement guidelines presented in the LAUSD's Relocation Assistance Advisory Program which complies with all items identified in the California State Relocation Assistance and Real Property Acquisition Guidelines (California Code of Regulations Title 25, Division 1, Chapter 6).	LAUSD's Relocation Assistance Advisory Program	LAUSD Real Estate and Asset Management	Signature Title: Date:
	PUBLIC SERVICES							

Standard Conditions of Approval

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
☒	SC-PS-1	Emergency Protection Services	New building, new school, change in campus traffic circulation	Prior to construction (Planning & Construction)	LAUSD shall: 1) have local fire and police jurisdictions review all construction and site plans prior to the State Fire Marshall's final approval; and 2) provide a full site plan for the local review, including all buildings, both existing and proposed, fences, drive gates, retaining walls, and other construction affecting emergency vehicle access, with unobstructed fire lanes for access indicated.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	LAUSD OEHS and FSD and Design Builder	Signature Title: Date:
☒	SC-PS-2	Emergency Preparedness & Response	Practice on a standard schedule during school operation & during emergencies or disaster situations	During school operation (Post-Construction)	LAUSD shall implement emergency preparedness and response procedures in all schools as required in LAUSD References, Bulletins, Safety Notes, and Emergency Preparedness Plans.	• REF-5803.2 - Emergency Drills and Procedures, August 26, 2013 • SAF:30 - Emergency Response Protocol for LASUD Exiting Facilities, March 2, 2007 • Emergency Operations Plan, updated April 2010 • BUL-6084.0 - Use of School Facilities in an Emergency or Disaster Situation, June 11, 2013 • REF-5511.2 - Safe School Plans Update for 2013-2014, August 15, 2013 • BUL-5433.1 - District Emergency Response and Preparedness, March 8, 2013 • REF-5451.1 - School Site Emergency/Disaster Supplies, April 12, 2013 • REF 5741.0 - Emergency Response – Communications and Response Actions, April 23, 2012 • Other LAUSD Emergency Preparedness Plans include earthquakes, bio-terrorism, heavy rain and flooding, disturbances/demonstrations, school safety, West Nile virus precautions, procedures for reentry and cleanup of fire damaged building, disposal procedures for hazardous waste	LAUSD, OEHS, FSD, M&O and Administration	Signature Title: Date:

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
						and universal waste.		
	TRANSPORTATION and TRAFFIC							
☐	SC-T-1	Traffic Analysis	Increase student capacity by more than 25% or 10 classrooms and additional traffic	Prior to project approval	**OEHS CEQA Specification Manual, Appendix C, Traffic and Pedestrian Safety Requirements for New Schools.** Requirements identifies performance requirements for the selection and design of school sites to minimize potential pedestrian safety risks: • Site Selection • Bus and Passenger Loading Areas • Vehicle Access • Pedestrian Routes to School Requirements also state school traffic studies shall identify measures to ensure separation between pedestrians and vehicles along potential pedestrian routes, such as sidewalks, crosswalks, bike paths, crossing guards, pedestrian and traffic signals, stop signs, warning signs, and other pedestrian access measures.	LAUSD OEHS CEQA Specification Manual, Appendix C, Traffic and Pedestrian Safety Requirements for New Schools. December 2005, Revised June 2007.	LAUSD OEHS	_____ Signature Title: Date:
☒	SC-T-2	Vehicular Access and Parking	Construction of parking, and/or vehicular or pedestrian access	During project design	**School Design Guide**. Vehicular access and parking shall comply with Section 2.3, Vehicular Access and Parking of the School Design Guide, January 2014 (and/or Current Version). The Design Guide contains the following regulations related to traffic: • Parking Space Requirements • General Parking Guidelines • Vehicular Access and Pedestrian Safety • Parking Structure Security	School Design Guide. Los Angeles Unified School District. Current Version.	Design Builder	_____ Signature Title: Date:
☐	SC-T-3	Traffic Analysis	Increase student capacity by more than 25% or 10 classrooms and/or generates additional traffic or shifts traffic patterns	Prior to project approval	Coordinate with the local City or County jurisdiction and agree on the following: • Compliance with the jurisdiction's design guidelines for access, parking, and circulation in the vicinity of the project. • Scope of analysis and methodology for the traffic and pedestrian study, including trip generation rates, trip distribution, number and location of intersections to be studied, and traffic impact thresholds. • Implementation of SR2S, traffic control and pedestrian safety devices. • Fair share contribution and/or other mitigation measures for potential traffic impacts. • Traffic and pedestrian safety impact studies shall address local traffic and congestion during morning arrival times, and before and after evening stadium events. • Traffic study will use the latest version of Institute of Transportation Engineer's (ITE) Trip Generation manual to determine trip generation rates (parent vehicles, school buses, staff/faculty vehicles, and delivery vehicles) based on the size of the school facility, unless otherwise required by local jurisdiction. • Loading zones will be analyzed to determine the adequacy as pick-up and drop-off	none	LAUSD OEHS	_____ Signature Title: Date:

Standard Conditions of Approval

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
					points. Recommendations will be developed in consultation with the local jurisdiction for curb loading bays or curb parking restrictions to accommodate loading needs and will control double parking and across-the-street loading.			
☒	SC-T-4	Construction Traffic	Large construction equipment required to use public roadways	Prior to construction (Construction)	LAUSD shall require its contractors to submit a construction worksite traffic control plan to the local City or County jurisdiction for review prior to construction. The plan shall show the location of any haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. LAUSD shall encourage its contractor to limit construction-related trucks to off-peak commute periods. As required by Caltrans, applicable transportation related safety measures shall be implemented during construction.	none	Design Builder	Signature Title: Date:
TRIBAL CULTURAL RESOURCES								
☒	SC-TCR-1	Native American Resource	Evidence of Native American resources is uncovered	During grading, excavation, or other ground-disturbing activities (Construction)	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.	none	Design Builder	Signature Title: Date:
UTILITIES and SERVICE SYSTEMS								
☒	SC-USS-1	Solid Waste (construction)	Generate construction and/or demolition debris	Prior to start and during construction (Construction)	**School Design Guide.** Construction and demolition waste shall be recycled to the maximum extent feasible. LAUSD has established a minimum non-hazardous construction and demolition debris recycling requirement of 75% by weight as defined in Specification 01340, Construction & Demolition Waste Management. **Guide Specifications 2004 - Section 01340, Construction & Demolition Waste Management.** This section of the LAUSD Specifications includes procedures for preparation and implementation, including reporting and documentation, of a Waste Management Plan for reusing, recycling, salvage or disposal of non-hazardous waste materials generated during demolition and/or new construction (Construction & Demolition (C&D) Waste), to foster material recovery and re-use and to minimize disposal in landfills. Requires the collection and separation of all C&D waste materials generated on-site, reuse or recycling on-site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and/or reusing a minimum of 75% of the C&D waste generated.	• School Design Guide. Current Version; • Specification 01340, Construction & Demolition Waste Management, July 7, 2003; • LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR; • The Collaborative for High Performance Schools. High Performance Schools Best Practices Manual, Volume III–- Criteria. Version 1.0, November 1, 2001. Adopted by the Board of Education on October 28, 2003. Updated 2009 CHPS Scorecard with 2011 Amendments. Prerequisite. Construction Waste Management. ME2.0C.P1 and LAUSD 2014	Design Builder	Signature Title: Date:

Standard Conditions of Approval

Apply if Checked	Reference #	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions	Original Source	Responsible Implementing Party	Signature of Responsible Party (OEHS)
						School Design Guide.		
☐	SC-USS-2	Water Supply	Excavation near water lines	During construction	LAUSD shall coordinate with the City of Los Angeles Department of Water and Power or other appropriate jurisdiction and department prior to the relocation or upgrade of any water facilities to reduce the potential for disruptions in service.	LAUSD Best Management Practices, adopted by the Board of Education on June 2004 as part of the 2004 Program EIR.	LAUSD FSD and M&O	_____ Signature Title: Date:
☐	SC-USS-3	Solid Waste (operation)	New school or new school construction on existing campus	During operation	Provide easily accessible area serving the entire school that are dedicated to the collection and storage of materials for recycling including (at a minimum) paper, cardboard, glass, plastics, metals and landscaping waste. There shall be at least one centralized collection point (loading dock), and ability for separation of recyclables where waste is disposed of for classrooms and common areas such as cafeteria's, gyms or multi-purpose rooms.	The Collaborative for High Performance Schools. High Performance Schools Best Practices Manual, Volume III—Criteria. Version 1.0, November 1, 2001. Adopted by the Board of Education on October 28, 2003. Updated 2009 CHPS Scorecard with 2011 Amendments. Prerequisite. Storage and Collection of Recyclables. ME1.0.P2	LAUSD OEHS and M&O	_____ Signature Title: Date:

APPENDIX J

RESPONSE TO COMMENTS

APPENDIX J

Grant High School
Response to Comments

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INTRODUCTION

The Los Angeles Unified School District ("LAUSD") is proposing the Ulysses S. Grant High School ("Grant High School") Comprehensive Modernization Project (Project). The proposed Project consists of site-wide upgrades and modernization of the existing Grant High School campus, which would include demolition of some structures; construction of new buildings; improvements to the existing campus facilities; upgrades to infrastructure and utilities; and various site-wide upgrades per the Americans with Disabilities Act. The proposed Project is designed to address the most critical physical concerns of the buildings and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

The Project would include demolition of 12 existing permanent buildings and structures totaling approximately 61,141 square feet of floor space and demolition/removal of 14 portable buildings containing approximately 26,157 square feet of classroom space, for a total demolition/removal of approximately 87,298 square feet. The Project also includes the remodeling of approximately 142,081 square feet of existing building space.

Facilities to be removed include the following:

- Administration building
- Library building
- Arts building
- Two industrial arts classroom buildings
- Agricultural/horticultural classroom building and auxiliary structures
- Utility/Support buildings and structures
- Approximately 22 classrooms located in relocatable buildings

The purpose of this document is to summarize the public comments received on the Draft Initial Study/Mitigated Negative Declaration (IS/MND). Public notification of the Draft IS/MND was sent to affected public agencies, stakeholders, and residents and properties within a 0.25-mile radius of the Project site. Though this document is not required by the California Environmental Quality Act (CEQA), the LAUSD has provided these responses to comments for further disclosure of the proposed Project.

PUBLIC AND AGENCY REVIEW PROCESS

The following discussion summarizes the public involvement actions associated with public circulation of the Draft IS/MND for the proposed Project.

Public Meeting

One public meeting was held at Grant High School on Thursday, October 19, 2017 from 6 p.m. to 7:30 p.m. This meeting was held to present the proposed Project's background and purpose, and the environmental analysis and findings. This event also provided an opportunity for the public to watch a presentation of the proposed Project and for LAUSD to address questions from the public. More than 15 people attended this meeting. Meeting notices were sent to the families/guardians of Grant High School students and to the residents and property owners within a 0.25-mile radius of the Project site. Spanish-and Armenian speaking interpreters and 40 translation headsets were available to meeting attendees. The PowerPoint presentation was projected in English, Spanish and Armenian. In addition, English, Spanish, and Armenian versions of the meeting notice are provided in Attachment A and the meeting agenda is provided in Attachment B.

Public Circulation

Public circulation of the Notice of Intent (NOI) and the Draft IS/MND included a 30-day review period, starting on October 17, 2017 and ending on November 17, 2017. English, Spanish, and Armenian versions of the NOI are provided in Attachment C. The Draft IS/MND was also available for public review and comment on the LAUSD Office of Environmental Health and Safety (OEHS) Website: http://achieve.lausd.net/OEHS. Hard copies of the NOI were sent via U.S. postal mail to residents and property owners within 0.25 mile of the school site, as well as to families and guardians of the school's students.

Hard copies of the Draft IS/MND were available at the following public locations:

1. Grant High School, 13000 Oxnard Street, Los Angeles, CA 91401
2. LAUSD Office of Environmental Health and Safety, 333 South Beaudry Avenue, Los Angeles, CA 90017
3. North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601

Newspaper Public Notices

Legal advertisements for public circulation of the Draft IS/MND were posted in three newspaper periodicals: *Los Angeles Valley News Group*, *La Opinión* for the Spanish-speaking circulation, and the *Armenian Daily Newspaper* for Armenian-speaking circulation. These newspapers posted the public notice on or around October 17, 2017, due to circulation schedules. Proof of publications (i.e., tear sheets and affidavits) of the newspapers ads are provided in Attachment D.

RESPONSE TO PUBLIC COMMENTS

During the public circulation period, LAUSD received two comments on the Draft IS/MND from agency stakeholders. These public comments were received via e-mail.

Comments received during the public review period covered the following topics and issues:

- Native American consultation outreach
- Traffic (sustainable transit modes)

Each public comment was individually reviewed and addressed with a formal response. Table 1 summarizes the public comments and the response for each comment. Scanned copies of these written public comments are provided in Attachment F.

Public Meeting Comments

No comment cards were received at the October 19, 2017 community meeting held at Grant High School.

Comments from Agencies

Comments from two public agencies were received during the public review period for the Draft IS/MND. Table 1 summarizes the comments received and the respective responses provided.

Table 1: Comments from Public Agencies

ID	Commenter Name	Comment Date	Comment	Response
A -1	Gayle Totton, Associate Government Project Analyst State of California Native American Heritage Commission	10/30/2017	Stipulation that no tribes have provided contact request letters under AB-52 is in error. Three of the five Gabrieleno tribes affiliated to the area have sent letters to the Los Angeles Unified School District (in 2015 and 2016) requesting project information and the opportunity to consult. Discussions under AB-52 may include the type of document prepared; avoidance, minimization of damage to resources; and proposed mitigation. Please provide documentation that government-to-government consultation is conducted as per AB-52 requirements. The NAHC further recommends that consultation outreach should be done for all of the tribes on the NAHC list, which is consistent with Best Practices. Please refer to: http://nahc.ca.gov/wp-contenUuploads/2015/04/AB52TribalConsultationRequirementsAndBestPracticesRevised_3_9_16.pdf	The Gabrieleno/Tongva San Gabriel Band of Mission Indians, Gabrielino Tongva Indians of California Tribal Council, Gabrieleno Band of Mission Indians – Kizh Nation, Gabrielino/Tongva Nation, and the San Fernando Band of Mission Indians were sent notification of the IS/MND prepared for the Grant High School Comprehensive Modernization Project, on October 17, 2017. To date, LAUSD, as the Project's lead agency, has not received any writing from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Project requesting formal notification of projects undertaken by LAUSD within this geographic area. In the absence of such a written request, AB 52 does not require consultation. AB 52, as codified in Public Resources Code ("PRC") Section 21080.3.1, requires a lead agency to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if that tribe: (1) requests the lead agency in writing to inform the tribe through formal notification of such a proposed project; and (2) responds in writing within 30 days of receipt of such a formal notification and requests the consultation. Therefore, LAUSD would have consulted with these tribes on this Project upon request by the tribe(s).
A-2	Same		Lack of consultation with tribes traditionally and culturally affiliated to the project area or lack of documented resources does not mean there are no potential impacts and does not preclude inadvertent finds. Mitigation for Tribal Cultural Resources is required **with or without consultation** with tribes. Mitigation	The LAUSD understands that the lack of consultation with tribes traditionally and culturally affiliated to the Project area or lack of documented resources does not mean

Table 1: Comments from Public Agencies

ID	Commenter Name	Comment Date	Comment	Response
			measures specifically addressing inadvertent finds of Tribal Cultural Resources **separately and distinctly** from Archaeological Resources should be included in the document. Mitigation language for archaeological resources (such as data recovery and curation) is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. For sample mitigation measures for Tribal Cultural Resources, please refer to California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/cega/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf	there are no potential impacts and does not preclude inadvertent finds. LAUSD also understands that mitigation for tribal cultural resources is required with or without consultation with the tribes and mitigation measures specifically address inadvertent finds of tribal cultural resources separately, and distinctly from, archaeological resources. LAUSD further understands that mitigation language for archaeological resources (i.e., data recovery and curation) is not always appropriate for, or similar to, measures specifically designed for handling tribal cultural resources. Additionally, LAUSD has reviewed those sample mitigation measures for tribal cultural resources, referenced by NAHC (above), in relation to recommendations provided for the Grant High School Comprehensive Modernization Project. LAUSD Standard Condition SC-TCR-1 will be implemented during this Project. If a sensitive tribal cultural resource is observed during Project activities, all work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.

Table 1: Comments from Public Agencies

ID	Commenter Name	Comment Date	Comment	Response
B-1	Miya Edmonson, Acting IGR/CEQA Branch Chief State of California Department of Transportation District 7	11/15/2017	The project involves decreasing the amount of on-site car parking. The MND estimates an existing 328 spaces will be reduced to approximately 313 spaces. Caltrans does not object to such a reduction because research on parking suggests this may in fact serve to incentivize alternative modes the State seeks to encourage such as walk, bicycling, public transit, or carpooling. As a result, the project may produce a net benefit with respect to climate change and sustainable transportation policy goals by simply reducing the on-site parking. However, in tandem with the parking reduction, we encourage LAUSD to include measures to *actively incentivize* more walking, bicycling, and/or carpooling to and from campus. Promoting and celebrating Walk/Bike to School Day; providing safe, pleasant, and convenient bicycle parking that is sheltered from weather elements; or offering preferential parking to those that carpool should all be considered. Absent from the MND is any mention of existing or new bicycle parking to be installed, despite existing policies and initiatives aimed at promoting more sustainable design and active transportation. Ignoring parking for active transportation (bicycling, skateboard, scooter) while still providing approximately 313 parking spaces for cars, the project disproportionately promotes driving. For this reason, we strongly encourages (*sic*) including quality bicycle/skateboard parking and active transportation amenities as part of the project design. Providing such amenities would be consistent with State level policies as well as local LAUSD initiatives. In the absence of such active transportation amenities, site users (including students, facility and staff) may be unable, unpermitted, or discouraged from using alternate modes and the project would be inconsistent with its own policies aimed at promoting active transportation and reducing transportation-related greenhouse gas emissions.	. Currently, the school has three bike racks holding approximately 40 bicycles. During the design phase of the project, LAUSD will consider the existing conditions of bicycle/scooter/skateboard storage and provide improvements as feasible and in line with LAUSD's "High Performance Strategies for Major Repair and Modernization Projects." Students, faculty, and staff can currently travel to school using public transit routes, bicycles, and by walking. The site is located on a mature network of pedestrian facilities. LAUSD supports non-motorized alternatives for students, faculty, and staff travelling to and from their school campus. Per Standard Condition SC-AQ-5, LAUSD encourages ride-sharing programs for students and teachers, as well as riding bicycles to school.
B-2	Same	11/15/2017	To better promote Los Angeles' long-term sustainable transportation vision, the built environment could recognize and complement transportation plans for the area. Although LAUSD has a limited role in shaping transportation habits, the design of the school (pedestrian-oriented vs automobile-oriented) and amenities it provides (greenspace, car parking, bicycle parking, etc.) can influence how site users go to and from the school and this should be considered. Site design that omits or makes needs of active transportation modes secondary would be inconsistent with desired State goals of promoting sustainable transportation and reducing greenhouse gas emissions. Design elements such as providing quality and inviting amenities for active transportation are especially opportune because children are more likely to walk, bicycle, skateboard, or take other active modes than the general population.	LAUSD recognizes the importance and influence of the City of Los Angeles General Plan, including its Mobility Plan 2035, an update to the City's Transportation Element. As the City and its Department of Transportation progress further in their policy-planning and implementing the Plan's objectives and Neighborhood Enhanced Network improvements for local streets, LAUSD would support future coordination and collaboration with the City of Los Angeles to ensure Grant High School and its community are involved in

Table 1: Comments from Public Agencies

ID	Commenter Name	Comment Date	Comment	Response
				these efforts. The proposed Project is limited to the campus site and does not include offsite improvements, such as roadway improvements to the local streets. Accordingly, the CEQA analysis and findings presented in the Draft Initial Study focused on existing campus conditions and potential impacts associated with the proposed Project.
B-3	Same	11/15/2017	If the MND is revised, Caltrans would like to see a discussion of, and provisions for, both car and bicycle parking, not just car parking. A strategy included in LAUSD's "High Performance Strategies for Major Repair and Modernization Projects" recommends identifying a designated area for bicycle and skateboard storage and coordinating site installation with school administrator. Ideally, such a discussion of car and bicycle parking would be complemented with diagrams indicating more precise location, type, and quantity of parking for both modes instead of just one.	The proposed Project would modernize existing facilities within Grant High School and would not increase student capacity. Though these modernization improvements respond to the greatest needs of the school, LAUSD will consider the existing conditions of bicycle/scooter/skateboard storage and provide improvements as feasible and in line with LAUSD's "High Performance Strategies for Major Repair and Modernization Projects."
B-4	Same	11/15/2017	Finally, as a reminder any transportation of heavy construction equipment and/or materials requiring use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods. Also, storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Be mindful that the project needs to be designed to discharge clean run-off water. The completed project could incorporate green design elements that can capture storm water. Incorporating permeable pavement, landscaping, and trees to reduce urban water run- off should be considered.	Comment noted. LAUSD and its construction contractors for the Project will coordinate with Caltrans to obtain any necessary permits.

Comments from Organizations

No comments were received from organizations during the public review period.

Comments from Public Stakeholders

No comments were received from stakeholders during the public review period.

ATTACHMENT A: PUBLIC MEETING NOTICE

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

Parents, Community and Neighbors of

Grant High School

The exciting and long-awaited Comprehensive Modernization Project for your school is on the move! Get the latest project information on: Design, CEQA and Site Assessment. Please join us at this important...

COMMUNITY MEETING

Thursday,
OCTOBER 19, 2017
6:00 p.m.

GRANT HS
MULTI-PURPOSE ROOM
13000 Oxnard Street
Van Nuys, CA 91401

If you currently have children studying at:

Burbank Elementary School
Chandler Learning Academy
Coldwater Canyon Elementary
Dixie Canyon Community Charter
Bellingham Elementary School
Erwin Elementary School
Kittridge Elementary School
Monlux Elementary School
Riverside Dr. Charter School
Roscomare Elementary School
Sherman Oaks EL Charter
Romer Middle School
Madison Middle School
Millikan Middle School

They will likely attend the substantially-modernized Grant HS. You too are invited to this Meeting!

FOR MORE INFORMATION PLEASE CALL LORRIE MUÑOZ AT FSD COMMUNITY RELATIONS
- MAIN NUMBER (213) 241-1340
- DIRECT (213) 241-1327
- EMAIL LORRIE.MUNOZ@LAUSD.NET

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

Գրանթ ավագ դպրոցի ծնողներ, համայնք և հարևաններ

Ձեր դպրոցի համար հետաքրքիր և երկար սպասված Համապարփակ արդիականացման ծրագիրը ընթացքի մեջ է: Ստացեք վերջին նախագծային տեղեկությունները Դիզայնի, CEQA-ի և Կալքի գնահատմամ մասին: Խնդրում ենք միանալ մեզ այս կարևոր ...

ՀԱՄԱՅՆՔԻ ԺՈՂՈՎԻՆ

Հինգշաբթի,
ՀՈԿՏԵՄԲԵՐԻ 19, 2017
18:00

GRANT HS
ԴԱՀԼԻՃ-ԼՍԱՐԱՆ
13000 Oxnard Street
Van Nuys, CA 91401

Եթե ձեր երեխաները ներկայումս սովորում են հետևյալ դպրոցներում՝

Burbank Elementary School
Chandler Learning Academy
Coldwater Canyon Elementary
Dixie Canyon Community Charter
Bellingham Elementary School
Erwin Elementary School
Kittridge Elementary School
Monlux Elementary School
Riverside Dr. Charter School
Roscomare Elementary School
Sherman Oaks EL Charter
Romer Middle School
Madison Middle School
Millikan Middle School

Նրանք, ամենայն հավանականությամբ, հաճախելու են էապես արդիականացված Գրանթ ավագ դպրոցը: Դուք նույնպես հրավիրվում եք այս հանդիպմանը:

Մանրամասն տեղեկատվության հարցերի և բանակցիրի FSD-ի Հասարակության հետ կապերի բաժին Լոր Մանրաթոյ
• ՀԻՄՆԱԿԱՆ ՀԵՌ. (213) 241-1340 • ՈՒՂԻՂ (213) 241-1327 • ԷԼ. ՀԱՍՑԵ LORRIE.MUNOZ@LAUSD.NET

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

Padres, Comunidad y Vecinos de
Grant High School

¡El extraordinario y tan esperado Proyecto de Modernización Integral para la escuela sigue avanzando! Obtenga la más reciente información sobre: el Diseño, CEQA e inspección del terreno. Acompáñenos en esta importante...

REUNIÓN COMUNITARIA

Jueves,
19 de OCTUBRE, 2017
6:00 p.m.

GRANT HS
MULTI-PURPOSE ROOM
13000 Oxnard Street
Van Nuys, CA 91401

Si tiene hijos e hijas que actualmente estudian en:

Burbank Elementary School
Chandler Learning Academy
Coldwater Canyon Elementary
Dixie Canyon Community Charter
Bellingham Elementary School
Erwin Elementary School
Kittridge Elementary School
Monlux Elementary School
Riverside Dr. Charter School
Roscomare Elementary School
Sherman Oaks EL Charter
Romer Middle School
Madison Middle School
Millikan Middle School

Ellos probablemente asistirán a la sustancialmente modernizada Grant HS. Así que usted también está invitado a esta reunión!

PARA MÁS INFORMACIÓN COMUNÍQUESE CON LORRIE MUÑOZ DE FSD COMMUNITY RELATIONS
• LÍNEA CENTRAL (213) 241-1340 • LÍNEA DIRECTA (213) 241-1327 • EMAIL LORRIE.MUNOZ@LAUSD.NET

ATTACHMENT B: PUBLIC MEETING AGENDA

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

GRANT HIGH SCHOOL
COMPREHENSIVE MODERNIZATION PROJECT
COMMUNITY MEETING
Thursday, October 19th, 2017 at 6:00 p.m.

A G E N D A

I. Welcome and Introductions
Bienvenida y Presentaciones
– LORRIE MUÑOZ, FSD COMMUNITY RELATIONS

II. Comprehensive Modernization Project Overview
Repaso General del Proyecto de Modernización Integral
– MITRA NEHORAI, SENIOR PROJECT DEVELOPMENT MANAGER

III. Design Update
Actualización sobre el Diseño
– CRAIG ATKINSON, IBI GROUP, PRINCIPAL MANAGER

IV. Preliminary Environmental Assessment (PEA) and Removal Action Workplan (RAW)
Estudio Ambiental Preliminar (PEA) y Plan de Trabajo para Remoción de Contaminantes (RAW)
– ANDREW MODUGNO, OEHS ENVIRONMENTAL ASSESSMENT COORDINATOR

V. California Environmental Quality Act (CEQA)
Ley de Calidad Medioambiental de California (CEQA)
– GWENN GODEK, OEHS CEQA ADVISOR

VI. Questions & Comments
Preguntas y Comentarios

ATTACHMENT C: NOTICE OF INTENT

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC COMMENT PERIOD FOR PRELIMINARY ENVIRONMENTAL ASSESSMENT-EQUIVALENT AND REMOVAL ACTION WORKPLAN

TO: Agencies, Organizations, Property Owners, and Interested Parties
PROJECT TITLE: Ulysses S. Grant High School Comprehensive Modernization Project
SUBJECT: Notice of Intent to Adopt a Mitigated Negative Declaration and Notice of Public Comment Period for Preliminary Environmental Assessment-Equivalent and Removal Action Workplan

NOTICE IS HEREBY GIVEN that the Los Angeles Unified School District (LAUSD or District), as Lead Agency under the California Environmental Quality Act (CEQA), has prepared an Initial Study (IS) for the Ulysses S. Grant High School Comprehensive Modernization Project (proposed Project), pursuant to the CEQA (California Public Resources Code, Division 13, Section 21000 et seq. [CEQA Statute] and the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq. [CEQA Guidelines]). Based on the IS, LAUSD determined that the proposed Project would have no significant adverse impacts on the environment and a Mitigated Negative Declaration (MND) is appropriate. The District is providing public notice in compliance with Title 14, Chapter 3, Sections 15072 and 15073 of the California Code of Regulations, as amended. Notice is further given that a Preliminary Environmental Assessment - Equivalent (PEA-E) and Removal Action Workplan (RAW) have been prepared for the proposed Project and are available for review.

PROJECT LOCATION: The Project site is located at 13000 Oxnard Street, Los Angeles, in Los Angeles County, California.

PROJECT DESCRIPTION: The proposed Project consists of site-wide upgrades and modernization of the existing Ulysses S. Grant High School campus, which would include demolition of some structures; construction of new buildings; improvements to the existing campus facilities; upgrades to infrastructure and utilities; and various site-wide upgrades per the Americans with Disabilities Act. The proposed Project is designed to address the most critical physical concerns of the building and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

POTENTIAL ENVIRONMENTAL EFFECTS: Pursuant to CEQA Guidelines Section 15060(d), and based on the environmental analysis in the IS, the District has determined that an MND is the appropriate level of environmental documentation for the proposed Project.

The PEA-E and RAW present the findings of the environmental investigations performed for this Project and outline the proposed process for the removal and off-site disposal of the impacted soil.

PUBLIC REVIEW PERIOD: The public review period for the IS/MND, PEA-E, and RAW begins on October 17, 2017 and ends on November 17, 2017.

RESPONSES AND COMMENTS: Please indicate a contact person for your agency or organization and send your comments to:

CEQA Questions and Comments
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Linda Wilde, CEQA Project Manager
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: CEQA-comments@lausd.net
Please include "Grant Comp Mod" in the subject line

PEA-E and RAW Questions and Comments
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Mr. Andrew Modugno, Environmental Site Assessment Coordinator
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: andrew.modugno@lausd.net
Phone: (213) 241-3433

All comments must be received by 5:00 pm on November 17, 2017.

PUBLIC MEETING: LAUSD will hold a public meeting on October 19, 2017 at 6:00 pm at Ulysses S. Grant High School, 13000 Oxnard Street, Los Angeles, CA 91401. All agencies, organizations, and interested parties are encouraged to attend.

DOCUMENT AVAILABILITY: Copies of the IS/MND, PEA-E, and RAW are available during operating hours at:

- LAUSD Office of Environmental Health & Safety, 333 South Beaudry Ave., 21st Floor, Los Angeles, CA 90017, (213) 241-3417 (by appointment)
- Ulysses S. Grant High School Library, 13000 Oxnard Street, Los Angeles, CA 91401, (818) 756-2700
- North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7185.
  - LAUSD Office of Environmental Health and Safety Website:
    - CEQA Initial Study (http://achieve.lausd.net/ceqa)
    - PEA-E and RAW (http://achieve.lausd.net/siteassessment)

AVISO DE INTENCIÓN DE ADOPTAR UNA DECLARACIÓN NEGATIVA MITIGADA Y AVISO DE PERÍODO DE REVISTA PÚBLICA PARA BORRADOR DE UN EQUIVALENTE A UNA EVALUACIÓN PRELIMINAR AMBIENTAL Y PLAN DE TRABAJO DE ACCIÓN DE REMOCIÓN

Para: Agencias, Organizaciones, Propietarios, and Partes Interesadas
PROJECT TITLE: Ulysses S. Grant High School Comprehensive Modernization Project
SUBJECT: Aviso de Intención de Adoptar una Declaración Negativa Mitigada y Aviso de Período de Revista Pública Para Borrador de un Equivalente a una Evaluación Preliminar Ambiental y Plan de **T**trabajo de Acción de Remoción

POR LO PRESENTE SE DA AVISO que el Distrito Escolar Unificado de Los Ángeles, (LAUSD, por sus siglas en inglés) como organismo principal del Proyecto bajo la ley de la Calidad Ambiental de California (CEQA, por sus siglas en inglés) ha preparado un estudio inicial (IS, por sus siglas en inglés) del Proyecto de Modernización Comprensiva de la escuela preparatoria Ulysses S. Grant High School (proyecto propuesto), de conformidad con CEQA (Código de Recursos Públicos [PRC, por sus siglas en inglés], División 13, Artículos 21000 y siguientes [estatuto de CEQA] y el Código Reglamentario de California [CCR, por sus siglas en inglés] Título 14, División 6, Capítulo 3, Artículo 15000 y siguientes [directrices CEQA]). Con base en el estudio inicial (IS), LAUSD determinó que el proyecto propuesto no tendría impactos adversos significativos sobre el medio ambiente, por lo que una declaración negativa mitigada (MND, por sus siglas en inglés) es apropriada. El Distrito está proveyendo notificación pública en cumplimiento del Título 14, Capítulo 3, Artículos 15072 y 15073 del Código Reglamentario de California, según enmendada. Además se da aviso que una borrador de un Equivalente a una Evaluación Preliminar Ambiental (PEA-E por sus siglas en inglés) y un Plan de Trabajo de Acción de Remoción (RAW, por sus siglas en ingles) se han preparado y están disponibla para repaso.

UBICACIÓN DEL PROYECTO: El sitio se ubica en 13000 Oxnard Street, en la ciudad de Los Angeles, en el condado de Los Angeles, California.

DESCRIPCIÓN DEL PROYECTO: El proyecto consiste en mejoramientos y modernizaciones por todaujpartes del plantel escolar de la escuela preparatoria actual Ulysses S. Grant High School. Específicamente, el proyecto propuesto incluiría la demolición de algunas estructuras que están más allá de la reparación; la construcción de edificios nuevos; mejoramientos al plantel escolar existente; actualización de infraestructura y servicios públicos; y varios mejoramientos por todo el campus mandados por la Ley para Estadounidenses Discapacitados o con Discapacidades (ADA, por sus siglas en inglés). El proyecto propuesto está diseñado para abordar las preocupaciones fisicas más importantes de los edificios y terrenos del campus mientras mejora, renueva, moderniza y reconfigura el plantel escolar para proporcionar servicios que sean seguros y mejor alineados con el programa educativo actual.

EFECTOS AMBIENTALES POTENCIALES: De conformidad con la Sección 15060(d) de las Directrices de CEQA, y con base al análisis ambiental en el IS, el Distrito ha determinado que una MND es el nivel apropiado de documentación ambiental para el Proyecto propuesto.

El PEA-E y RAW presentan los hallazgos de las investigaciones ambientales realizadas para este Proyecto y describen el proceso propuesto para la eliminación y retiro de desechos fuera del lugar del suelo impactado.

PERÍODO DE REVISTA PÚBLICA: El período de revisión pública para el IS/MND, PEA-E, y RAW comienza el 17 de octubre de 2017 y termina el 17 de noviembre de 2017.

RESPUESTAS Y COMENTARIOS: Por favor indique una persona de contacto para su agencia u organización y envíe sus respuestas y comentarios a:

Preguntas y Comentarios CEQA
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Linda Wilde, CEQA Project Manager
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: CEQA-comments@lausd.net
(Favor de incluir "Grant HS Comp Mod Project" en la cabecera)

Preguntas y Comentarios PEA-E y RAW
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Mr. Andrew Modugno, Environmental
Site Assessment Coordinator
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: andrew.modugno@lausd.net
Phone: (213) 241-3433

Todos los comentarios se deben recibir antes de las 5:00 p.m. el 17 de noviembre de 2017.

REUNIÓN PÚBLICA: LAUSD llevará a cabo una reunión pública el19 de octubre de 2017 a las 6:00 p.m. en Uysses S. Grant High School, 13000 Oxnard Street, Los Angeles, CA 91401. Animamos a todas agencias, organizaciones, y partes interesadas a asistir.

DISPONIBILIDAD DEL DOCUMENTO: Copias del IS/MND, PEA-E y el RAW pueden encontrarse durante las horas de operaciones en las siguientes ubicaciones:

- **LAUSD Oficina de Salud y Seguridad Ambiental**, 333 South Beaudry Ave., 21st Floor, Los Angeles, CA 90017, (213) 241-3417 (con cita)
- **Biblioteca de Ulysses S. Grant High School**, 13000 Oxnard Street, Los Angeles, CA 91401, (818) 756-2700
- **Biblioteca Regional Amelia Earhart de North Hollywood**, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7185
- **Sitio web de LAUSD Oficina de Salud y Seguridad Ambiental:**
  - Estudio Inicial de CEQA (http://achieve.lausd.net/ceqa)
  - PEA-E y RAW (http://achieve.lausd.net/siteassessment)

Մտադրութեան Ծանուցում. Մեղմացնելու Բացասական Յայտարարութիւն եւ Հանրային Մեկնաբանութիւններու Ժամանակամիջոցի՝ Կենսոլորտային Նախնական Գնահատման-Համազօր եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր Որդեգրելու

Ուղղուած՝ Գործակալութիւններու, Կազմակերպութիւններու, Կալուածատէրերու եւ Հետաքրքրուող Կողմերու
Ծրագրի խորագիր՝ Ուլիսզը Ս. Կրենթ Հայ Սքուլ Մեծապարփակ Արդիականացման Ծրագիր
Նիւթ՝ Մտադրութեան Ծանուցում Մեղմացնելու Բացասական Յայտարարութիւն եւ Հանրային Մեկնաբանութիւններու Ժամանակամիջոցի՝ Կենսոլորտային Նախնական Գնահատման-Համազօր եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր Որդեգրելու

ԱՅՍՈՒ, ԾԱՆՕԹԱԳՐՈՒԹԻՒՆ ԿԸ ՏՐՈՒԻ, թէ Լոս Անճելըսի Միացեալ Կրթաշրջանը (LAUSD կամ District), իբրեւ Քալիֆորնիոյ Կենսոլորտի Որակի Օրէնքի (CEQA) ենթակայ Առաջնորդող Գործակալութիւն՝ պատրաստեց Նախնական Ուսումնասիրութիւն մը (IS) Ուլիսզը Ս. Կրենթ Հայ Սքուլի Մեծապարփակ Արդիականացման Ծրագիրին համար (առաջարկուած ծրագիր), ըստ CEQA-ի (Public Resources Code [PRC]-Հանրային Միջոցներու Կանոնագիրքի, 13րդ Բաժինի, Մաս 21000ին եւ ի հետեւումն՝ «CEQA կանոն»ին եւ Քալիֆորնիոյ Օրէնքներու Կանոնագիրի [CCR], 14րդ Վերնագիրի, 6րդ Բաժինի, Մաս 15000ի, եւ ի հետեւումն «CEQA Ուղեգիծ»ին)։ Հիմնուելով IS-ին վրայ՝ LAUSD-ը հաստատեց, որ առաջարկուած ծրագիրը յատկանշականօրէն անկնպատ ազդեցութիւններ պիտի չունենայ կենսոլորտին վրայ, եւ Մեղմացուած Բացասական Յայտարարութիւն (MND) մը յարմա՛ր է։ Կրթաշրջանը հանրային ազդարարութիւն կը հայթաթէ՝ ենթարկուելով Քալիֆորնիոյ Օրէնքներու Կանոնագիրի 14րդ Վերնագիրի, 3րդ Գլուխի, Մաս 15072ին եւ 15073ին, փոփոխուած օրէնքներուն հիման վրայ։ Յաւելեալ ծանօթագրութիւն կը տրուի, թէ Կենսոլորտային Նախնական Գնահատման-Համազօր (PEA-E) եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր (RAW) մը պատրաստուած է առաջարկուած Ծրագիրին համար եւ տրամադրելի է ընթերցման։

ԾՐԱԳԻՐԻ ՎԱՅՐ՝ Ծրագիրի վայրը կը գտնուի 13000 Oxnard Street, Los Angeles, in Los Angeles County, California հասցէին։

ԾՐԱԳԻՐԻ ՆԿԱՐԱԳՐՈՒԹԻՒՆ՝ Առաջարկուած ծրագիրը կը բաղկանայ Ուլիսզը Ս. Կրենթ Հայ Սքուլի ներկայի վարժարանային վայրի ամբողջ տարածքի բարեկարգումներէն եւ արդիականացումներէն, որոնք պիտի ընդգրկեն ճանդումը նորոգութեան կարելիութենէ դուրս գտնուող կառոյցներու, նոր շէնքերու կառուցումը, գոյութիւն ունեցող վարժարանի տարածքներուն բարելաւումը, ենթակառոյցներու եւ սարքերու նորացումը եւ ամբողջ տարածքին վրայ զանազան այլ բարեկարգումներ՝ Ամերիկացիներ Անկարութեանց Հետ օրէնքին հիման վրայ։ Առաջարկուած Ծրագիրը ուրուագծուած է ուղղելու համար վարժարանին մէջ շէնքերուն եւ հողատարածքին ֆիզիքական վտանգներու վերաբերող մտահոգութիւնը, նոյն ատեն բարեփոխելու, վերանորոգելու, արդիականացնելու եւ վերաձեւաւորելու վարժարանը, որպէսզի տրամադրէ տարածքներ, որոնք ապահով են եւ համապատասխան՝ դաստիարակչական այժմու նախագիծին։

ԿԵՆՍՈԼՈՐՏԱՅԻՆ ՀԱՒԱՆԱԿԱՆ ԱԶԴԱԿՆԵՐ՝ Ըստ CEQA-ի Ուղենիշներու Հատուած 15060(d)ին եւ հիմնուելով IS-ի մէջ կատարուած կենսոլորտային վերլուծութեան վրայ՝ Կրթաշրջանը հաստատեց, որ առաջարկուած Ծրագիրին համար MND մը յարմար մակարդակն է կենսոլորտային փաստագրութեան։

PEA-E-ը եւ RAW-ը կը ներկայացնեն այս Ծրագիրին համար իրականացած կենսոլորտային հետազօտութիւններուն եզրակացութիւնները եւ կ՛ուրուագծեն վնասուած հողի վերացման ու վայրէն հեռացման առաջարկուած գործընթացը։

ՀԱՆՐԱՅԻՆ ՎԵՐԱՏԵՍՈՒԹԵԱՆ ԺԱՄԱՆԱԿԱՇՐՋԱՆ՝ IS/MND-ի, PEA-E -ի եւ RAW-ի վերաբերեալ հանրային վերատեսութեան ժամանակաշրջանը կը սկսի 17 Հոկտեմբեր 2017ին եւ վերջ կը գտնէ 17 Նոյեմբեր 2017ին։

ՊԱՏԱՍԽԱՆՆԵՐ ԵՒ ՄԵԿՆԱԲԱՆՈՒԹԻՒՆՆԵՐ՝ Հաճեցէք նշել ձեր գործակալութեան կամ կազմակերպութեան կապի պատասխանատուին անունը, եւ ձեր մեկնաբանութիւնները ուղարկել հետեւեալ հասցէներուն.

CEQA Հարցումներ եւ Պատասխաններ
Լոս Անճելըսի Միացեալ Կրթաշրջանի
Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակ
Ցանձնելի՝ Տիկ. Լինտա Ուայլտին, CEQA-ի Ծրագիրի Վարիչ
333 S. Beaudry Avenue, 21st Floor,
Los Angeles, CA 90017
Ե-նամակ՝ CEQA-comments@lausd.net
Please include "Grant Comp Mod" in the subject line
Կը խնդրուի «Grant Comp Mod» տողին վրայ գրել

PEA-E եւ RAW Հարցումներ եւ Պատասխաններ
Լոս Անճելըսի Միացեալ Կրթաշրջան
Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակ
Ցանձնելի՝ Պրն. Էնտրու Մոնտուկնոյին, Կենսոլորտի Արժեւորման Կապ
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Ե-նամակ՝ Andrew.mondugno@lausd.net
Հեռաձայն՝ (213) 241-3433

Բոլոր մեկնաբանութիւնները հասած պէտք է ըլլան 17 Նոյեմբեր 2017ի կէսօրէն ետք ժամը 5էն առաջ

ԿՐԿՆՕՐԻՆԱԿՆԵՐՈՒ ՏՐԱՄԱԴՐԵԼԻՈՒԹԻՒՆ

IS/MND-ի, PEA-E -ի եւ RAW-ի կրկնօրինակներ տրամադրելի են գրասենեակի գործունէութեան ժամերուն՝ հետեւեալ վայրերէն.

- LAUSD Office of Environmental Health & Safety, 333 South Beaudry Ave., 21st Floor, Los Angeles, CA 90017, (213) 241-3417 (by appointment)
- Ulysses S. Grant High School Library, 13000 Oxnard Street, Los Angeles, CA 91401, (818) 756-2700
- North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7185
- Լոս Անճելըսի Միացեալ Կրթաշրջանի (LAUSD) Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակի կայքէջին վրայ՝
  CEQA Նախնական Ուսումնասիրութիւն (http://achieve.lausd.net/ceqa)
  PEA-E եւ RAW (http://achieve.lausd.net/siteassessment)

ATTACHMENT D: LEGAL ADVERTISEMENTS

The Weekly Valley Vantage and Calabasas Enterprise

22025 Ventura Blvd. #303, Woodland Hills CA 91364
(818) 313-9545 / Fax (818) 302-1417

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party of or interested in the above-entitled matter. I am the principal clerk of the printer of the Valley Vantage, a newspaper of general circulation, printed and published weekly in the City of Los Angeles, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior court of the County of Los Angeles, State of California, under the date of March 25, 1953, Case Number SFC-858; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit: 10-20-2017

I certify (or declare) under penalty of perjury that the foregoing is true and correct. Dated at Woodland Hills CA this 21st day of November 2017

Kathleen Sterling, Publisher

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
AND NOTICE OF PUBLIC COMMENT PERIOD FOR PRELIMINARY
ENVIRONMENTAL ASSESSMENT - EQUIVALENT AND REMOVAL ACTION WORK PLAN

TO: Agencies, Organizations, Property Owners, and Interested Parties
PROJECT TITLE: Ulysses S. Grant High School Comprehensive Modernization Project
SUBJECT: Notice of Intent to Adopt a Mitigated Negative Declaration and Notice of Public Comment Period for Preliminary Environmental Assessment-Equivalent and Removal Action Work Plan

NOTICE IS HEREBY GIVEN that the Los Angeles Unified School District (LAUSD or District), as Lead Agency under the California Environmental Quality Act (CEQA), has prepared an Initial Study (IS) for the Ulysses S. Grant High School Comprehensive Modernization Project (proposed Project), pursuant to the CEQA (California Public Resources Code, Division 13, Section 21000 et seq.; CEQA Statutes) and the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq. (CEQA Guidelines). Based on the IS, LAUSD determined that the proposed Project would have no significant adverse impacts on the environment and a Mitigated Negative Declaration (MND) is appropriate. The District is providing public notice in compliance with Title 14, Chapter 3, Sections 15072 and 15073 of the California Code of Regulations, as amended. Notice is further given that a Preliminary Environmental Assessment - Equivalent (PEA-E) and Removal Action Work Plan (RAWP) have been prepared for the proposed Project and are available for review.

PROJECT LOCATION: The Project site is located at 5000 Oxford Street, Los Angeles, in Los Angeles County, California.

PROJECT DESCRIPTION: The proposed Project consists of the site upgrade and modernization of the existing Ulysses S. Grant High School campus, which would include demolition of some structures; construction of new buildings; improvements to the existing campus facilities; upgrades to infrastructure and utilities; and various site-wide upgrades per the Americans with Disabilities Act. The proposed Project is designed to address the most critical physical concerns of the building and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

POTENTIAL ENVIRONMENTAL EFFECTS: Pursuant to CEQA Guidelines Section 15064(f), and based on the environmental analysis in the IS, the District has determined that an MND is the appropriate level of environmental documentation for the proposed Project.

The PEA-E and RAWP present the findings of the environmental investigation performed for the Project and outline the proposed process for the removal and offsite disposal of the impacted soil.

PUBLIC REVIEW PERIOD: The public review period for the IS/MND, PEA-E, and RAWP begins on October 19, 2017 and ends on November 18, 2017.

RESPONSES AND COMMENTS: Please indicate a contact person for your agency or organization and send your comments to:

CEQA Questions and Comments	PEA-E and RAWP Questions and Comments
Los Angeles Unified School District	Los Angeles Unified School District
Office of Environmental Health and Safety	Office of Environmental Health and Safety
Attention: Linda Olds, CEQA Project Manager	Attention: Mr. Andrew McAgan, Environmental
333 South Beaudry Avenue, 24th Floor	Site Assessment Coordinator
Los Angeles, CA 90017	333 South Beaudry Avenue, 24th Floor
Email: CEQA-comments@lausd.net	Los Angeles, CA 90017
Please include "Grant Comprehensive Modernization"	Email: andrew.mcagan@lausd.net
	Phone: (213) 241-4161

All comments must be received by 5:00 p.m. on November 17, 2017.

PUBLIC MEETING: LAUSD will hold a public meeting on October 19, 2017 at 6:00 p.m. at Ulysses S. Grant High School, 5000 Oxford Street, Los Angeles, CA 90041. All agencies, organizations, and interested parties are encouraged to attend.

DOCUMENT AVAILABILITY: Copies of the IS/MND, PEA-E, and RAWP are available during specified hours at:

- LAUSD Office of Environmental Health & Safety, 333 South Beaudry Ave., 24th Floor, Los Angeles, CA 90017, (213) 241-4161 (by appointment)
- Ulysses S. Grant High School Library, 5000 Oxford Street, Los Angeles, CA 90041, (213) 224-4300
- North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7191
- LAUSD Office of Environmental Health and Safety Website:
  - CEQA Initial Study (http://achieve.lausd.net/ceqa)
  - PEA-E and RAWP (http://achieve.lausd.net/environmental)

PROOF OF PUBLICATION
(2015.5C.C.P)

La Opinión

915 Wilshire Blvd Ste 800, Los Angeles, CA 90017
Tel: (213)896-2260 • Fax: (213)896-2238

STATE OF CALIFORNIA

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of La Opinión a newspaper of general circulation, printed and published daily in the city of Los Angeles, county of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of July 28, 1969, Case Number: 950176; that the notice, of which the annexed is a printed copy, has been published in each regular and not in any supplement thereof on the following dates, to wit:

October 17

all in the year 2017

I certified (or declared) under penalty of perjury that the foregoing is true and correct.
Dated at Los Angeles, California, this

17 day of November, 2017

Signature

AVD #017 Controlled
Rev. 03/12

OEHS

AVISO DE INTENCIÓN DE ADOPTAR UNA DECLARACIÓNNEGATIVA MITIGADA Y AVISO DE PERIODO DE COMENTARIOS PÚBLICOS PARA EVALUACIÓN AMBIENTAL PRELIMINAR-EQUIVALENTE Y PLAN DE TRABAJO DE ACCIÓN DE ELIMINACIÓN

PARA: Agencias, Organizaciones, Dueños de Propiedades y Partes Interesadas

TÍTULO DEL PROYECTO: Proyecto de Modernización Integral de la Preparatoria Ulysses S. Grant

ASUNTO: Aviso de Intención de Adoptar una Declaración Negativa Mitigada y Aviso de Periodo de Comentarios Públicos para Evaluación Ambiental Preliminar-Equivalente y Plan de Trabajo de Acción de Eliminación

POR MEDIO DE LA PRESENTE SE DA AVISO que el Distrito Escolar Unificado de Los Ángeles (LAUSD o Distrito), como Agencia Principal bajo la Ley de Calidad Ambiental de California (CEQA, por sus siglas en inglés), ha preparado un Estudio Inicial (IS, por sus siglas en inglés) para el Proyecto de Modernización Integral de la Preparatoria Ulysses S. Grant (Proyecto porpuesto), de conformidad con CEQA (Código de Recursos Públicos de California, División 13, Sección 21000 et seq. [Estatuto de CEQA] y el Código de Regulaciones de California, Título 14, División 6, Capítulo 3, Sección 15000 et seq. [Directrices de CEQA]). Con base en el IS, LAUSD determinó que el Proyecto propuesto no tendría impactos adversos significativos en el medio ambiente y una Declaración Negativa Mitigada (MND, por sus siglas en inglés) es apropiada. El Distrito está proporcionando el aviso público de conformidad con el Título 14, Capítulo 3, Secciones 15072 y 15073 del Código de Regulaciones de California, según enmendado. También se da aviso que una Evaluación Ambiental Preliminar-Equivalente (PEA-E) y Plan de Trabajo de Acción de Eliminación (RAW) ha sido preparado para el Proyecto propuesto y están disponibles para su revisión.

UBICACIÓN DEL PROYECTO: El sitio del Proyecto está ubicado en 13000 Oxnard Street, Los Ángeles, en el Condado de Los Ángeles, California.

DESCRIPCIÓN DEL PROYECTO: El Proyecto propuesto consiste de la actualización en todo el sitio y modernización del campus de la Preparatoria Ulysses S. Grant existente, el cual incluirá la demolición de alguna estructuras; la construcción de nuevos edificios; mejoras a las instalaciones del campus existentes; actualizaciones a la infraestructura y servicios públicos: y varias actualizaciones en todo el sitio según la Ley de Estadounidenses con Discapacidades. El Proyecto propuesto está diseñado para abordar las preocupaciones físicas más críticas del edificio y los terrenos del campus mientras se actualiza, renueva, moderniza y reconfigura el campus para ofrecer instalaciones que sean seguras, estables y mejor alineadas con el programa de instrucción actual.

EFECTOS AMBIENTALES POTENCIALES: De conformidad con la Sección 15060(d) de las Directrices de CEQA, y con base al análisis ambiental en el IS, el Distrito ha determinado que una MND es el nivel apropiado de documentación ambiental para el Proyecto propuesto.

El PEA-E y RAW presentan los hallazgos de las investigaciones ambientales realizadas para este Proyecto y describen el proceso propuesto para la eliminación y retiro de desechos fuera del lugar del suelo impactado.

PERIODO DE REVISIÓN PÚBLICA: El período de revisión pública para el IS/MND, PEA-E, y RAW comienza el 17 de octubre de 2017 y finaliza el 17 de noviembre de 2017.

RESPUESTAS Y COMENTARIOS: Por favor indique una persona de contacto para su agencia u organización y envíe sus comentarios a:

Preguntas y Comentarios de CEQA
Distrito de Escuelas Unificadas de Los Ángeles
Oficina de Salud y Seguridad Ambiental
Atención: Linda Wilde, Administrador de Proyecto de CEQA
333 South Beaudry Avenue, 21° Piso
Los Ángeles, CA 90017
Correo electrónico: CEQA-comments@lausd.net
Por favor incluya "Grant Comp Mod" en la línea del asunto

Preguntas y Comentarios de PEA-E y RAW
Distrito de Escuelas Unificadas de Los Ángeles
Oficina de Salud y Seguridad Ambiental
Atención: Sr. Andrew Modugno, Environmental Coordinador de Evaluación del Sitio
333 South Beaudry Avenue, 21° Piso
Los Ángeles, CA 90017
Correo electrónico I: andrew.modugno@lausd.net
Teléfono: (213) 241-3433

Todos los comentarios deben ser recibidos antes de las 5:00 pm del 17 de noviembre de 2017.

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DISPONIBILIDAD DE DOCUMENTOS: Copias del IS/MND, PEA-E, y RAW están disponibles durante horario de operación en:

- Oficina de Salud y Seguridad Ambiental de LAUSD, 333 South Beaudry Ave., 21° Piso, Los Ángeles, CA 90017, (213) 241-3417 (con cita)
- Biblioteca de la Preparatoria Ulysses S. Grant, 13000 Oxnard Street, Los Ángeles, CA 91401, (818) 756-2700
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  - Estudio Inicial de CEQA (http://achieve.lausd.net/ceqa)
  - PEA-E y RAW (http://achieve.lausd.net/siteassessment)

109-24811-1

DEPORTES
FUTBOL

El Tottenham entrena en el Santiago Bernabéu, a donde llega enrachado. /EFE

Champions League

Tottenham desafía la cancha del Bernabéu

Real Madrid ha sufrido como local en juegos de Liga

EFE
MADRID

El Real Madrid, campeón de las dos últimas ediciones de la Liga de Campeones, pone en juego el liderato del Grupo H y su fiabilidad en un Santiago Bernabéu, donde perdió su fortaleza liguera, ante un Tottenham con el que empata a todo y que llega con un Harry Kane pletórico.

El Bernabéu acoge un atractivo partido de Liga de Campeones con el objetivo de seguir siendo un fortín -13 partidos sin perder en competición europea y un solo empate cedido por sus dueños-, dar un paso en firme al liderato de grupo y hacer olvidar la debilidad de local en Liga, donde sólo ganó un partido y hasta llegó a perder contra el Betis tras ceder empates con Valencia y Levante.

Pero la Liga de Campeones es una competición especial para el Real Madrid y Cristiano Ronaldo, que llega tras finalizar en Getafe su sequía liguera con el primer tanto del curso, pero lanzado en Europa con 8 dianas en sus tres últimos partidos europeos en el Bernabéu y una trascendencia que marcan las 14 dianas en sus siete últimos encuentros de Champions.

Liderará el ataque formando pareja con Karim Benzema, que regresó en Getafe y nutrió de balones al portugués con una conexión especial. A sus espaldas estará el jugador en mejor momento del Real Madrid, Isco Alarcón.

Zinedine Zidane recupera a Keylor Navas en la portería, superado su edema muscular, pero sigue sin poder contar con Dani Carvajal en defensa, Mateo Kovacic en el centro del campo y Gareth Bale en punta. El galés no podrá reencontrarse con su exequipo.

Tan sólo en una ocasión se han medido Real Madrid y Tottenham en Liga de Campeones, en los cuartos de final de 2011, y un total de cuatro enfrentamientos europeos (tres triunfos y un empate para el Real Madrid).

El Tottenham Hotspur, ganador de cinco juegos en fila y liderado por un Harry Kane en estado de gracia (15 goles en sus anteriores 11 juegos), llega a Madrid en busca de un resultado positivo que lo mantenga en lo más alto del Grupo H y con las posibilidades de clasificación intactas.

Es el único grupo en el cual dos equipos suman pleno de puntos (6), y tanto los hombres de Mauricio Pochettino como los de Zidane han marcado (6) y encajado (1) los mismos goles.

La jornada
Todos a las 11:45 am

Grupo E
Maribor vs. Liverpool
Estadio: Ljudski vrt, Maribor (Eslovenia)
Spartak Moscú vs. Sevilla
Estadio: Arena Otkrytie, Moscú (Rusia)

Grupo F
Feyenoord vs. Shakhtar Donetsk
Estadio: Feyenoord, Rotterdam (Holanda)
Manchester City vs. Nápoles
Estadio: City of Manchester (Inglaterra)
TV: ESPN Deportes

Grupo G
Leipzig vs. Porto
Estadio: RB Arena, Leipzig (Alemania)
Mónaco vs. Besiktas
Estadio: Louis II, Mónaco

Grupo H
Real Madrid vs. Tottenham
Estadio: Santiago Bernabéu, Madrid
TV: FOX Deportes
Apoel vs. Dortmund
Estadio: GSP, Nicosia (Chipre)

OEHS

AVISO DE INTENCIÓN DE ADOPTAR UNA DECLARACIÓNNEGATIVA MITIGADA Y AVISO DE PERIODO DE COMENTARIOS PÚBLICOS PARA EVALUACIÓN AMBIENTAL PRELIMINAR-EQUIVALENTE Y PLAN DE TRABAJO DE ACCIÓN DE ELIMINACIÓN

PARA: Agencias, Organizaciones, Dueños de Propiedades y Partes Interesadas

TÍTULO DEL PROYECTO: Proyecto de Modernización Integral de la Preparatoria Ulysses S. Grant

ASUNTO: Aviso de Intención de Adoptar una Declaración Negativa Mitigada y Aviso de Periodo de Comentarios Públicos para Evaluación Ambiental Preliminar-Equivalente y Plan de Trabajo de Acción de Eliminación

POR MEDIO DE LA PRESENTE SE DA AVISO que el Distrito Escolar Unificado de Los Ángeles (LAUSD o Distrito), como Agencia Principal bajo la Ley de Calidad Ambiental de California (CEQA, por sus siglas en inglés), ha preparado un Estudio Inicial (IS, por sus siglas en inglés) para el Proyecto de Modernización Integral de la Preparatoria Ulysses S. Grant (Proyecto porpuesto), de conformidad con CEQA (Código de Recursos Públicos de California, División 13, Sección 21000 et seq. [Estatuto de CEQA] y el Código de Regulaciones de California, Título 14, División 6, Capítulo 3, Sección 15000 et seq. [Directrices de CEQA]). Con base en el IS, LAUSD determinó que el Proyecto propuesto no tendría impactos adversos significativos en el medio ambiente y una Declaración Negativa Mitigada (MND, por sus siglas en inglés) es apropiada. El Distrito está proporcionando el aviso público de conformidad con el Título 14, Capítulo 3, Secciones 15072 y 15073 del Código de Regulaciones de California, según enmendado. También se da aviso que una Evaluación Ambiental Preliminar-Equivalente (PEA-E) y Plan de Trabajo de Acción de Eliminación (RAW) ha sido preparado para el Proyecto propuesto y están disponibles para su revisión.

UBICACIÓN DEL PROYECTO: El sitio del Proyecto está ubicado en 13000 Oxnard Street, Los Ángeles, en el Condado de Los Ángeles, California.

DESCRIPCIÓN DEL PROYECTO: El Proyecto propuesto consiste de la actualización en todo el sitio y modernización del campus de la Preparatoria Ulysses S. Grant existente, el cual incluirá la demolición de alguna estructuras; la construcción de nuevos edificios; mejoras a las instalaciones del campus existentes; actualizaciones a la infraestructura y servicios públicos; y varias actualizaciones en todo el sitio según la Ley de Estadounidenses con Discapacidades. El Proyecto propuesto está diseñado para abordar las preocupaciones físicas más críticas del edificio y los terrenos del campus mientras se actualiza, renueva, moderniza y reconfigura el campus para ofrecer instalaciones que sean seguras, estables y mejor alineadas con el programa de instrucción actual.

EFECTOS AMBIENTALES POTENCIALES: De conformidad con la Sección 15060(d) de las Directrices de CEQA, y con base al análisis ambiental en el IS, el Distrito ha determinado que una MND es el nivel apropiado de documentación ambiental para el Proyecto propuesto.

El PEA-E y RAW presentan los hallazgos de las investigaciones ambientales realizadas para este Proyecto y describen el proceso propuesto para la eliminación y retiro de desechos fuera del lugar del suelo impactado.

PERIODO DE REVISIÓN PÚBLICA: El periodo de revisión pública para el IS/MND, PEA-E, y RAW comienza el 17 de octubre de 2017 y finaliza el 17 de noviembre de 2017.

RESPUESTAS Y COMENTARIOS: Por favor indique una persona de contacto para su agencia u organización y envíe sus comentarios a:

Preguntas y Comentarios de CEQA
Distrito de Escuelas Unificadas de Los Ángeles
Oficina de Salud y Seguridad Ambiental
Atención: Linda Wilde, Administrador de Proyecto de CEQA
333 South Beaudry Avenue, 21° Piso
Los Ángeles, CA 90017
Correo electrónico: CEQA-comments@lausd.net
Por favor incluya "Grant Comp Mod" en la línea del asunto

Preguntas y Comentarios de PEA-E y RAW
Distrito de Escuelas Unificadas de Los Ángeles
Oficina de Salud y Seguridad Ambiental
Atención: Sr. Andrew Modugno, Environmental Coordinador de Evaluación del Sitio
333 South Beaudry Avenue, 21° Piso
Los Ángeles, CA 90017
Correo electrónico I: andrew.modugno@lausd.net
Teléfono: (213) 241-3433

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Affidavit of Publication
STATE OF CALIFORNIA
County of Los Angeles

ULTRASYSTEMS ENVIRINMENTAL, Inc.
16431 Scientific Way
Irvine, CA 92618

Account #00067823
Invoice #00108865

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the sales executive of Asbarez Armenian Daily Newspaper (Armenian Media Network), a newspaper of general circulation, published in the city of Los Angeles, County of Los Angeles, established in 1908 in Fresno, California.

The advertisement, a true copy attached for, was published in said Asbarez Armenian Daily Newspaper in one edition(s) of said newspaper issued on 10/18/2017.

Signature: Armine Daghlian-Dadourian

Date: 11/17/2018

Մտադրութեան Ծանուցում. Մեղմացնելու Բացասական Ցայտարարութիւն եւ Հանրային Մեկնաբանութիւններու Ժամանակամիջոցի՝ Կենսոլորտային Նախնական Գնահատման-Համազօր եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր Որդեգրելու

Ուղղուած՝ Գործակալութիւններու, Կազմակերպութիւններու, Կալուածատէրերու եւ Հետաքրքրուող Կողմերու
Ծրագիրի խորագիր՝ Ուլիսըզ Ս. Կրենթ Հայ Սքուլ Մեծապարփակ Արդիականացման Ծրագիր
Նիւթ՝ Մտադրութեան Ծանուցում Մեղմացնելու Բացասական Ցայտարարութիւն եւ Հանրային Մեկնաբանութիւններու Ժամանակամիջոցի՝ Կենսոլորտային Նախնական Գնահատման-Համազօր եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր Որդեգրելու

ԱՅՍՈՒ, ԾԱՆՕԹԱԳՐՈՒԹԻՒՆ ԿԸ ՏՐՈՒԻ, թէ Լոս Անճելըսի Միացեալ Կրթաշրջանը (LAUSD կամ District), իբրեւ Քալիֆորնիոյ Կենսոլորտի Որակի Օրէնքի (CEQA) ենթակայ Առաջնորդող Գործակալութիւն՝ պատրաստեց Նախնական Ուսումնասիրութիւն մը (IS) Ուլիսըզ Ս. Կրենթ Հայ Սքուլի Մեծապարփակ Արդիականացման Ծրագիրին համար (առաջարկուած ծրագիր), ըստ CEQA-ի (Public Resources Code [PRC]-Հանրային Միջոցներու Կանոնագիրքի, 13րդ Բաժինի, Մաս 21000ին եւ ի հետեւումն՝ «CEQA կանոն»ին եւ Քալիֆորնիոյ Օրէնքներու Կանոնագիրի [CCR], 14րդ Վերնագիրի, 6րդ Բաժինի, Մաս 15000ի, եւ ի հետեւումն «CEQA Ուղեգիծ»ին)։ Հիմնուելով IS-ին վրայ՝ LAUSD-ը հաստատեց, որ առաջարկուած ծրագիրը յատկանշականօրէն անեպաստ ազդեցութիւններ պիտի չունենայ կենսոլորտին վրայ, եւ Մեղմացուած Բացասական Ցայտարարութիւն (MND) մը յարմա՛ր է։ Կրթաշրջանը հանրային ազդարարութիւն կը հայթայթէ՝ ենթարկուելով Քալիֆորնիոյ Օրէնքներու Կանոնագիրի 14րդ Վերնագիրի, 3րդ Գլուխի, Մաս 15072ին եւ 15073ին, փոփոխուած օրէնքներուն հիման վրայ։ Ցաւելեալ ծանօթագրութիւն կը տրուի, թէ Կենսոլորտային Նախնական Գնահատման-Համազօր (PEA-E) եւ Վերացումի Գործողութեան Աշխատանքի Ծրագիր (RAW) մը պատրաստուած է առաջարկուած Ծրագիրին համար եւ տրամադրելի է ընթերցման։

ԾՐԱԳԻՐԻ ՎԱՅՐ՝ Ծրագիրի վայրը կը գտնուի 13000 Oxnard Street, Los Angeles, in Los Angeles County, California հասցէին։

ԾՐԱԳԻՐԻ ՆԿԱՐԱԳՐՈՒԹԻՒՆ՝ Առաջարկուած ծրագիրը կը բաղկանայ Ուլիսըզ Ս. Կրենթ Հայ Սքուլի ներկայի վարժարանային վայրի ամբողջ տարածքի բարեկարգումներէն եւ արդիականացումներէն, որոնք պիտի ընդգրկեն հանդումը նորոգութեան կարելիութենէ դուրս գտնուող կառոյցներու, նոր շէնքերու կառուցումը, գոյութիւն ունեցող վարժարանի տարածքներուն բարելաւումը, ենթակառոյցներու եւ սարքերու նորացումը եւ ամբողջ տարածքին վրայ զանազան այլ բարեկարգումներ՝ Ամերիկացիներ Անկարութեանց Հետ օրէնքին հիման վրայ։ Առաջարկուած Ծրագիրը ուրուագծուած է ուղղելու համար վարժարանին մէջ շէնքերուն եւ հողատարածքին ֆիզիքական վտանգներու վերաբերող մտահոգութիւնը, նոյն ատեն բարեփոխելու, վերանորոգելու, արդիականացնելու եւ վերածեւաւորելու վարժարանը, որպէսզի տրամադրէ տարածքներ, որոնք ապահով են եւ համապատասխան՝ դաստիարակչական այժմու նախգիծին։

ԿԵՆՍՈԼՈՐՏԱՅԻՆ ՀԱՒԱՆԱԿԱՆ ԱԶԴԱԿՆԵՐ՝ Ըստ CEQA-ի Ուղեցոյցներու Հատուած 15060(d)ին եւ հիմնուելով IS-ի մէջ կատարուած կենսոլորտային վերլուծութեան վրայ՝ Կրթաշրջանը հաստատեց, որ առաջարկուած Ծրագիրին համար MND մը յարմար մակարդակն է կենսոլորտային փաստագրութեան։

PEA-E-ը եւ RAW-ը կը ներկայացնեն այս Ծրագիրին համար իրականացած կենսոլորտային հետազօտութիւններուն եզրակացութիւնները եւ կ՚ուրուագծեն վնասուած հողի վերացման ու վայրէն հեռացման առաջարկուած գործընթացը։

ՀԱՆՐԱՅԻՆ ՎԵՐԱՏԵՍՈՒԹԵԱՆ ԺԱՄԱՆԱԿԱՇՐՋԱՆ՝ IS/MND-ի, PEA-E -ի եւ RAW-ի վերաբերեալ հանրային վերատեսութեան ժամանակաշրջանը կը սկսի 17 Հոկտեմբեր 2017ին եւ վերջ կը գտնէ 17 Նոյեմբեր 2017ին։

ՊԱՏԱՍԽԱՆՆԵՐ ԵՒ ՄԵԿՆԱԲԱՆՈՒԹԻՒՆՆԵՐ՝ Հաճեցէք նշել ձեր գործակալութեան կամ կազմակերպութեան կապի պատասխանատուին անունը, եւ ձեր մեկնաբանութիւնները ուղարկել հետեւեալ հասցէներուն.

CEQA Հարցումներ եւ Պատասխաններ
Լոս Անճելըսի Միացեալ Կրթաշրջանի
Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակ
Ցանձնելի՝ Տիկ. Լինտա Ուայլտին, CEQA-ի Ծրագիրի Վարիչ
333 S. Beaudry Avenue, 21st Floor,
Los Angeles, CA 90017
Ե-նամակ՝ CEQA-comments@lausd.net
Please include "Grant Comp Mod" in the subject line
Կը խնդրուի «Grant Comp Mod» տողին վրայ գրել

PEA-E եւ RAW Հարցումներ եւ Պատասխաններ
Լոս Անճելըսի Միացեալ Կրթաշրջան
Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակ
Ցանձնելի՝ Պրն. Էնտրու Մոնտուկնոյին, Կենսոլորտի Արժեւորման Կապ
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Ե-նամակ՝ Andrew.mondugno@lausd.net
Հեռաձայն՝ (213) 241-3433

Բոլոր մեկնաբանութիւնները հասած պէտք է ըլլան 17 Նոյեմբեր 2017ի կէսօրէն ետք ժամը 5էն առաջ

ԿՐԿՆՕՐԻՆԱԿՆԵՐՈՒ ՏՐԱՄԱԴՐԵԼԻՈՒԹԻՒՆ

IS/MND-ի, PEA-E -ի եւ RAW-ի կրկնօրինակներ տրամադրելի են գրասենեակի գործունէութեան ժամերուն՝ հետեւեալ վայրերէն.

- LAUSD Office of Environmental Health & Safety, 333 South Beaudry Ave., 21st Floor, Los Angeles, CA 90017, (213) 241-3417 (by appointment)
- Ulysses S. Grant High School Library, 13000 Oxnard Street, Los Angeles, CA 91401, (818) 756-2700
- North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7185
- Լոս Անճելըսի Միացեալ Կրթաշրջանի (LAUSD) Կենսոլորտի Առողջութեան եւ Ապահովութեան Գրասենեակի կայքէջին վրայ՝
  CEQA Նախնական Ուսումնասիրութիւն (http://achieve.lausd.net/ceqa)
  PEA-E եւ RAW (http://achieve.lausd.net/siteassessment)

ATTACHMENT E: COUNTY CLERK POSTING

OEHS

ORIGINAL FILED
OCT 17 2017
LOS ANGELES, COUNTY CLERK

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF PUBLIC COMMENT PERIOD FOR PRELIMINARY ENVIRONMENTAL ASSESSMENT-EQUIVALENT AND REMOVAL ACTION WORKPLAN

TO: Agencies, Organizations, Property Owners, and Interested Parties
PROJECT TITLE: Ulysses S. Grant High School Comprehensive Modernization Project
SUBJECT: Notice of Intent to Adopt a Mitigated Negative Declaration and Notice of Public Comment Period for Preliminary Environmental Assessment-Equivalent and Removal Action Workplan

NOTICE IS HEREBY GIVEN that the Los Angeles Unified School District (LAUSD or District), as Lead Agency under the California Environmental Quality Act (CEQA), has prepared an Initial Study (IS) for the Ulysses S. Grant High School Comprehensive Modernization Project (proposed Project), pursuant to the CEQA (California Public Resources Code, Division 13, Section 21000 et seq. [CEQA Statute] and the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq. [CEQA Guidelines]). Based on the IS, LAUSD determined that the proposed Project would have no significant adverse impacts on the environment and a Mitigated Negative Declaration (MND) is appropriate. The District is providing public notice in compliance with Title 14, Chapter 3, Sections 15072 and 15073 of the California Code of Regulations, as amended. Notice is further given that a Preliminary Environmental Assessment - Equivalent (PEA-E) and Removal Action Workplan (RAW) have been prepared for the proposed Project and are available for review.

PROJECT LOCATION: The Project site is located at 13000 Oxnard Street, Los Angeles, in Los Angeles County, California.

PROJECT DESCRIPTION: The proposed Project consists of site-wide upgrades and modernization of the existing Ulysses S. Grant High School campus, which would include demolition of some structures; construction of new buildings; improvements to the existing campus facilities; upgrades to infrastructure and utilities; and various site-wide upgrades per the Americans with Disabilities Act. The proposed Project is designed to address the most critical physical concerns of the building and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

POTENTIAL ENVIRONMENTAL EFFECTS: Pursuant to CEQA Guidelines Section 15060(d), and based on the environmental analysis in the IS, the District has determined that an MND is the appropriate level of environmental documentation for the proposed Project.

The PEA-E and RAW present the findings of the environmental investigations performed for this Project and outline the proposed process for the removal and off-site disposal of the impacted soil.

PUBLIC REVIEW PERIOD: The public review period for the IS/MND, PEA-E, and RAW begins on October 17, 2017 and ends on November 17, 2017.

RESPONSES AND COMMENTS: Please indicate a contact person for your agency or organization and send your comments to:

CEQA Questions and Comments
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Linda Wilde, CEQA Project Manager
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: CEQA-comments@lausd.net
Please include "Grant Comp Mod" in the subject line

PEA-E and RAW Questions and Comments
Los Angeles Unified School District
Office of Environmental Health and Safety
Attention: Mr. Andrew Modugno, Environmental Site Assessment Coordinator
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017
Email: andrew.modugno@lausd.net
Phone: (213) 241-3433

All comments must be received by 5:00 pm on November 17, 2017.

PUBLIC MEETING: LAUSD will hold a public meeting on October 19, 2017 at 6:00 pm at Ulysses S. Grant High School, 13000 Oxnard Street, Los Angeles, CA 91401. All agencies, organizations, and interested parties are encouraged to attend.

DOCUMENT AVAILABILITY: Copies of the IS/MND, PEA-E, and RAW are available during operating hours at:

- LAUSD Office of Environmental Health & Safety, 333 South Beaudry Ave., 21st Floor, Los Angeles, CA 90017, (213) 241-3417 (by appointment)
- Ulysses S. Grant High School Library, 13000 Oxnard Street, Los Angeles, CA 91401, (818) 756-2700
- North Hollywood Amelia Earhart Regional Library, 5211 Tujunga Avenue, North Hollywood, CA 91601, (818) 766-7185.
- LAUSD Office of Environmental Health and Safety Website:
  - CEQA Initial Study (http://achieve.lausd.net/ceqa)
  - PEA-E and RAW (http://achieve.lausd.net/siteassessment)

ATTACHMENT F: PUBLIC COMMENTS RECEIVED

Comment Letter No. A-1

State of California, Native American Heritage Commission

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471

Edmund G. Brown Jr., Governor

October 30, 2017

Linda Wilde
Los Angeles Unified School District
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

Sent via e-mail: linda.wilde@lausd.net

Re: SCH# 2017101035, Ulysses S. Grant High School Comprehensive Modernization Project, City of Los Angeles; Los Angeles County, California

Dear Ms. Wilde:

The Native American Heritage Commission (NAHC) has reviewed the Mitigated Negative Declaration prepared for the project referenced above. The review included the Introduction and Project Description, the Environmental Checklist and Analysis, section 4.5 Cultural Resources and section 4.18 Tribal Cultural Resources, and Appendix H – Cultural Resources Report, prepared by UltraSystems for the Los Angeles Unified School District. We have the following concerns:

1. Stipulation that no tribes have provided contact request letters under AB-52 is in error. Three of the five Gabrieleno tribes affiliated to the area have sent letters to the Los Angeles Unified School District (in 2015 and 2016) requesting project information and the opportunity to consult. Discussions under AB-52 may include the type of document prepared; avoidance, minimization of damage to resources; and proposed mitigation. Please provide documentation that government-to-government consultation is conducted as per AB-52 requirements. A-1
   The NAHC further recommends that consultation outreach should be done for all of the tribes on the NAHC list, which is consistent with Best Practices. Please refer to: http://nahc.ca.gov/wp-content/uploads/2015/04/AB52TribalConsultationRequirementsAndBestPractices_Revised_3_9_16.pdf

2. Lack of consultation with tribes traditionally and culturally affiliated to the project area or lack of documented resources does not mean there are no potential impacts and does not preclude inadvertent finds. Mitigation for Tribal Cultural Resources is required **with or without consultation** with tribes. Mitigation measures specifically addressing inadvertent finds of Tribal Cultural Resources **separately and distinctly** from Archaeological Resources should be included in the document. Mitigation language for archaeological resources (such as data recovery and curation) is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. For sample mitigation measures for Tribal Cultural Resources, please refer to California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," A-2
   http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf

ADDITIONAL INFORMATION:
The California Environmental Quality Act (CEQA)[1], specifically Public Resources Code section 21084.1, states that 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] If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.[3] In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).[4] **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"[5], that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.[6] Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.[7] Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements**. Additionally, if your project is also subject to the federal National Environmental

[1] Pub. Resources Code § 21000 et seq.
[2] Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)
[3] Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)
[4] Government Code 65352.3
[5] Pub. Resources Code § 21074
[6] Pub. Resources Code § 21084.2
[7] Pub. Resources Code § 21084.3 (a)

Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966[8] may also apply.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3714 if you have any questions.

Sincerely,

Gayle Totton, B.S., M.A., Ph.D
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

[8] 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.

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Pertinent Statutory Information:

Under AB 52:
AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:
Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.
A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.[9] and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report**. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).[10]
The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.
b. Recommended mitigation measures.
c. Significant effects.[11]

1. The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency.[12]
With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.[13]
If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.[14]

Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.[15]

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.[16]
If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).[17]
An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.[18]

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[9] Pub. Resources Code § 21080.3.1, subds. (d) and (e)
[10] Pub. Resources Code § 21080.3.1 (b)
[11] Pub. Resources Code § 21080.3.2 (a)
[12] Pub. Resources Code § 21080.3.2 (a)
[13] Pub. Resources Code § 21082.3 (c)(1)
[14] Pub. Resources Code § 21082.3 (b)
[15] Pub. Resources Code § 21080.3.2 (b)
[16] Pub. Resources Code § 21082.3 (a)
[17] Pub. Resources Code § 21082.3 (e)
[18] Pub. Resources Code § 21082.3 (d)

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:
Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**[19]
- There is no Statutory Time Limit on Tribal Consultation under the law.
- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,[20] the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.[21]
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
  - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.[22]

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at http://nahc.ca.gov/resources/forms/.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

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[19] (Gov. Code § 65352.3 (a)(2)).
[20] pursuant to Gov. Code section 65040.2,
[21] (Gov. Code § 65352.3 (b)).
[22] (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

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- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.[23]
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.[24]

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.[25] In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

[23] (Civ. Code § 815.3 (c)).
[24] (Pub. Resources Code § 5097.991).
[25] per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

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Comment Letter No. B-1
California Department of Transportation, District 7

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0067
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

November 15, 2017

Ms. Linda Wilde
Los Angeles Unified School District
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA, 90017

RE: Ulysses S. Grant High School
Comprehensive Modernization
Vic: LA-170 / PM: 17.211
GTS# 07-LA-2017-01185
SCH# 2017101035

Dear Ms. Wilde:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The project consists of demolishing various buildings, constructing new buildings, upgrading facilities throughout the campus, and improvements to comply with federal, state, and local facilities requirements.

Upon reviewing the Mitigated Negative Declaration (MND), Caltrans has the following comments:

State policies and goals related to sustainable transportation seek to reduce the number of trips made by driving, reduce transportation-related greenhouse gas emissions, and encourage alternative modes of travel. Caltrans' Strategic Management Plan has set a target of tripling trips made by bicycling, as well as doubling trips made by walking and public transit by 2020. The Strategic Plan also seeks to achieve a 15% reduction in statewide per capita vehicle miles traveled by 2020. Similar ambitious goals are embedded in the California Transportation Plan 2040. Statewide legislation such as AB 32 and SB 375, as well as Governor Executive Orders S-3-05 and B-16-12, further echo the need to pursue more sustainable development and transportation patterns. These climate change and sustainable transportation policy goals can only be achieved with active support from local agency partners such as LAUSD.

Please note, LAUSD shares similar policies related to promoting sustainable transportation. In September 2016, the LAUSD School Board adopted Resolution 025-16/17 supporting Safe Routes to School, Vision Zero, and Walk to School Day. All three of these initiatives promote active transportation and elevate pedestrian safety. The resolution language reflects a commitment to help remove barriers to walking and bicycling and offers positive re-enforcement to promote sustainable and healthy transport habits.

In October 2003, the LAUSD Board passed its Resolution on Sustainability and Design of High Performance Schools, directing staff to continue efforts to ensure modernization projects in the District incorporate Collaborative for High Performance Schools to the extent possible and practical. This includes enhancing student and staff health and minimizing the impact of District operations on the environment. The two aforementioned resolutions, though indirectly, complement each other and can be implemented in tandem to promote more sustainable, active transportation through this school modernization project.

Additionally, in March 2017, LAUSD released its "High Performance Strategies for Major Repair and Modernization Projects" document, which is intended to serve as a tool to help incorporate High

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Linda Wilde
November 15, 2017
Page 2

Performance/Sustainable design principles into modernization projects. Among the strategies included in the document are efforts to increase tree shade, pervious paving in parking lots, and coordinating installation of bicycle parking.

The project involves decreasing the amount of on-site car parking. The MND estimates an existing 328 spaces will be reduced to approximately 313 spaces. Caltrans does not object to such a reduction because research on parking suggests this may in fact serve to incentivize alternative modes the State seeks to encourage such as walk, bicycling, public transit, or carpooling. As a result, the project may produce a net benefit with respect to climate change and sustainable transportation policy goals by simply reducing the on-site parking. However, in tandem with the parking reduction, we encourage LAUSD to include measures to *actively incentivize* more walking, bicycling, and/or carpooling to and from campus. Promoting and celebrating Walk/Bike to School Day; providing safe, pleasant, and convenient bicycle parking that is sheltered from weather elements; or offering preferential parking to those that carpool should all be considered.

Absent from the MND is any mention of existing or new bicycle parking to be installed, despite existing policies and initiatives aimed at promoting more sustainable design and active transportation. Ignoring parking for active transportation (bicycling, skateboard, scooter) while still providing approximately 313 parking spaces for cars, the project disproportionately promotes driving. For this reason, we strongly encourages including quality bicycle/skateboard parking and active transportation amenities as part of the project design. Providing such amenities would be consistent with State level policies as well as local LAUSD initiatives. In the absence of such active transportation amenities, site users (including students, facility and staff) may be unable, unpermitted, or discouraged from using alternate modes and the project would be inconsistent with its own policies aimed at promoting active transportation and reducing transportation-related greenhouse gas emissions. B-1

To better promote Los Angeles' long-term sustainable transportation vision, the built environment could recognize and complement transportation plans for the area. Although LAUSD has a limited role in shaping transportation habits, the design of the school (pedestrian-oriented vs automobile-oriented) and amenities it provides (greenspace, car parking, bicycle parking, etc) can influence how site users go to and from the school and this should be considered. Site design that omits or makes needs of active transportation modes secondary would be inconsistent with desired State goals of promoting sustainable transportation and reducing greenhouse gas emissions. Design elements such as providing quality and inviting amenities for active transportation are especially opportune because children are more likely to walk, bicycle, skateboard, or take other active modes than the general population. B-2

If the MND is revised, Caltrans would like to see a discussion of, and provisions for, both car and bicycle parking, not just car parking. A strategy included in LAUSD's "High Performance Strategies for Major Repair and Modernization Projects" recommends identifying a designated area for bicycle and skateboard storage and coordinating site installation with school administrator. Ideally, such a discussion of car and bicycle parking would be complemented with diagrams indicating more precise location, type, and quantity of parking for both modes instead of just one. B-3

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. Linda Wilde
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Finally, as a reminder any transportation of heavy construction equipment and/or materials requiring use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods. Also, storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Be mindful that the project needs to be designed to discharge clean run-off water. The completed project could incorporate green design elements that can capture storm water. Incorporating permeable pavement, landscaping, and trees to reduce urban water run-off should be considered. B-4

If you have any questions regarding these comments, please contact project coordinator Severin Martinez, at (213)-897-0067 or severin.martinez@dot.ca.gov and refer to GTS# LA-2017-01185.

Sincerely,

MIYA EDMONSON
Acting IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"